

**CITY OF ESCONDIDO**  
**DRAFT MITIGATED NEGATIVE DECLARATION**  
**SPRUCE STREET DRAINAGE IMPROVEMENTS**  
**City File No. ENV15-0010**

*Prepared for:*



Planning Division  
201 North Broadway  
Escondido, CA 92025-2798  
(760) 839-4671

*Prepared by:*

**AECOM**

401 West A Street  
Suite 1200  
San Diego, CA 92101  
(619) 610-7600

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CITY OF ESCONDIDO  
PLANNING DIVISION  
201 NORTH BROADWAY  
ESCONDIDO, CA 92025-2798  
(760) 839-4671

## **DRAFT MITIGATED NEGATIVE DECLARATION**

(City Case No.: ENV15-0010)  
**ENVIRONMENTAL CHECKLIST  
SUPPLEMENTAL COMMENTS**

### **INTRODUCTION**

This draft mitigated negative declaration (MND) assesses the environmental effects of the proposed Spruce Street Drainage Improvements Project located in the city of Escondido between 3rd Avenue and the flood control channel of Escondido Creek.

An initial study environmental checklist (Appendix A) was prepared for this project and is included as a separate attachment to the supplemental comments within this report. The information contained in the initial study environmental checklist and its supplemental comments will be used by the City of Escondido to determine potential impacts associated with the proposed maintenance and restoration activities.

The detailed supplemental comments included in this document identify and evaluate physical impacts on the environment associated with developing or implementing the proposed project based on a preliminary review of a variety of environmental factors identified in the attached environmental checklist. In analyzing the project, it has been determined that impacts related to biological resources and cultural resources may occur. Based on information and documentation incorporated into the analysis, it has been concluded that this initial study warrants issuing an MND in draft form. The initial study identifies certain aspects of the project that may result in potentially significant impacts on the environment, but those impacts would be reduced to an acceptable less-than-significant level by incorporating appropriate mitigation measures. As provided by the California Environmental Quality Act (CEQA), the City of Escondido will act as lead agency because of its role in reviewing and potentially approving or issuing permits for the project.

As mandated by State CEQA Guidelines Section 15105, affected public agencies and the interested public may submit comments on the draft MND in writing before the end of the 30-day public review period starting on December 29, 2015 and ending on January 27, 2016. Written comments on this environmental document shall be submitted to the following address by 5:00 p.m. on January 27, 2016. Following the close of the public comment review period, the City of Escondido will consider this draft MND and all received comments in determining the approval of this project.

City of Escondido  
Environmental Programs Division  
201 North Broadway  
Escondido, CA 92025-2798

Contact: Helen Davies  
Telephone: (760) 839-6315  
Fax: (760) 432-9512  
E-mail: [hdavies@ci.escondido.ca.us](mailto:hdavies@ci.escondido.ca.us)

A hard copy of this document and any associated plans and/or documentation are available for review during normal operation hours for the duration of the public review period at the City of Escondido Planning Division at 201 North Broadway, and also posted on the City of Escondido website at [www.escondido.org/planning.aspx](http://www.escondido.org/planning.aspx).

## SECTION 1.0: PROJECT DESCRIPTION

### 1.1 BACKGROUND

The City of Escondido (City) owns and operates a Municipal Separate Storm Sewer System (MS4) infrastructure that includes various stormwater facilities associated with flood control and drainage in Escondido, San Diego County, California, including the Spruce Street drainage system (proposed project area). Pursuant to California Environmental Quality Act (CEQA) Section 15301, Class 1 (“Existing Facilities”), operation, repairs, maintenance, or minor alterations of existing facilities are typically exempt from CEQA. However, activities associated with the proposed Spruce Street Drainage Improvements Project (proposed project) need to occur near sensitive natural resources. Drainage improvement activities that have the potential to affect these resources are not categorically exempt from CEQA (Section 15300.2[c]); therefore, this draft mitigated negative declaration (MND) has been prepared in compliance with CEQA and provides an analysis of the potential impacts of the proposed project.

Storm Drainage Policy 14.11 in the Mobility and Infrastructure Element of the *City of Escondido General Plan* (2012) requires that the City “maintain flood control channels and storm drains through periodic dredging, repair, desilting, and clearing to prevent losses in effective use.” In response to a longstanding flooding and vector control problem, the City of Escondido applied for and was awarded a funding grant by the County of San Diego Department of Environmental Health under the Vector Habitat Remediation Program funding (fiscal year 2011–2012). The City is using the Vector Habitat Remediation Program funding to implement a variety of drainage improvements to eliminate vector breeding and nuisance water issues that have existed for more than a decade in the proposed project area by:

- clearing excessive vegetation overgrowth (including invasive, non-native species) and accumulated sediment within the drainage;
- integrating new slope and bottom configuration designs for the soft-bottom channels to safely convey the 100-year flood event while integrating native drought-tolerant plantings for slope stability;
- modifying structural components within culverts for improved hydraulic performance and reduced sedimentation fallout;
- constructing maintenance manhole openings for improved access and maintenance under Spruce Street;
- providing a strategic offline sediment trapping basin with a natural trash/debris screening design and a permanent access ramp to minimize maintenance needs in the main channel while also offering community enhancements and improved pedestrian access to public transit; and
- repairing erosion problems associated with off-site drainage for additional stormwater runoff treatment (rock infiltration swale).

The City is requesting a standard individual permit from the U.S. Army Corps of Engineers (USACE) under the Clean Water Act (CWA) Section 404 program to allow for drainage improvement activities in jurisdictional wetlands and nonwetland waters of the United States, as well as an individual CWA Section 401 Water Quality Certification from the San Diego Regional Water Quality Control Board (RWQCB). Although project design features that offer biological enhancements are anticipated, pursuing a permit under Regional General Permit 70 (Bioengineered Bank Stabilization Activities) would not meet permit requirements because proposed headwall modifications and other hardscape designs are proposed (as discussed below in Section 1.3, “Drainage Improvement Activities”). The City is also requesting

authorization from the California Department of Fish and Wildlife (CDFW) under Section 1600 of the California Fish and Game Code (CFGC) to allow these drainage improvement activities to occur within jurisdictional wetlands and nonwetland waters of the state.

## **1.2 PURPOSE AND NEED**

The channel located between 3rd Avenue and the flood control channel of Escondido Creek in the city of Escondido (Figure 1) has a long history of being chronically wet with standing water, thus creating a breeding habitat for mosquitoes, particularly in the upstream concrete-lined portion of the proposed project area. As a result, the existing channel has experienced a long history of flooding and vector control issues, resulting in impacts related to flood control, public health and safety, and water quality.

The City is using the County of San Diego Department of Environmental Health funding grant to implement a variety of drainage improvement activities to eliminate vector breeding and nuisance water issues that have existed within the channel. The proposed drainage improvement activities listed in below in Section 1.3 are necessary to reduce stagnant water and allow increased flow in the channel, thus eliminating vector issues and reducing sedimentation. In implementing the proposed drainage improvements, the City also would integrate design characteristics intended to offset or minimize environmental impacts through a variety of beneficial improvements to the earthen drainage features that provide habitat, water quality, and aesthetic value.

## **1.3 DRAINAGE IMPROVEMENT ACTIVITIES**

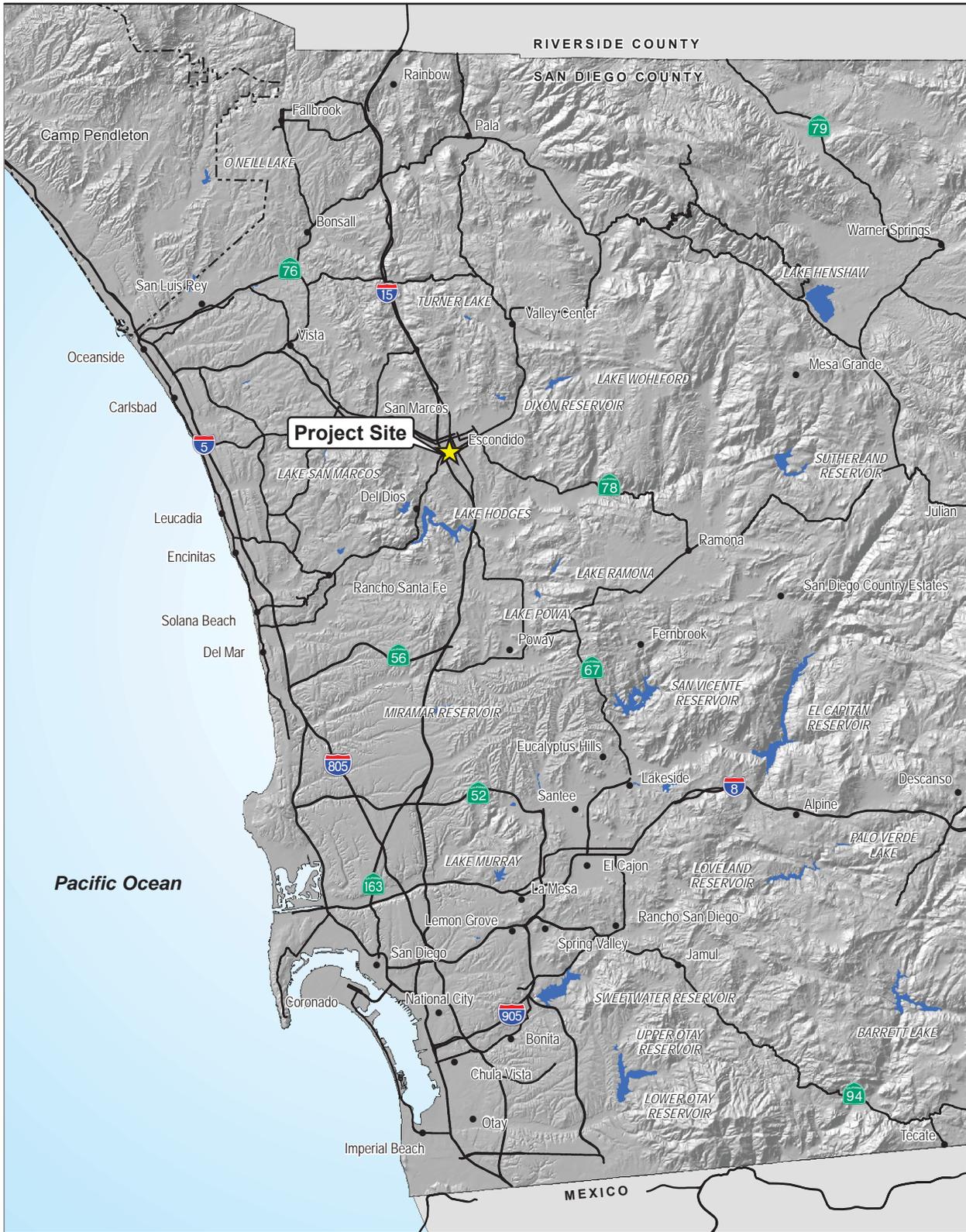
The proposed project includes a combination of construction activities that are scheduled to begin in May 2016 and are estimated to take 3 to 4 months, depending on weather and site conditions. Drainage improvement activities are described below. These activities would include repairs and improvements such as removing silt and vegetation through the following measures:

- concrete and earthen channel dredging;
- culvert clean-out;
- installation of permanent manholes, concrete wingwalls, and sediment traps;
- vegetation clearing and trimming;
- access road clearing; and
- revegetation using drought-tolerant native plants.

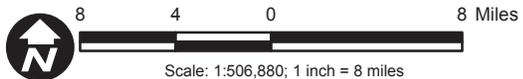
To simplify the discussion of the proposed Spruce Street channel drainage improvement activities, the channel has been divided into segments that share common characteristics (e.g., concrete-lined versus earthen bottom). The proposed activities within each segment explained in detail below.

### Open Concrete-Lined Ditch

The eastern (upstream) portion of the proposed construction area, located between South Spruce Street and West 3rd Avenue, consists of a concrete trapezoidal channel that receives dry- and wet-weather runoff from the culvert underneath West 3rd Avenue. Construction activities in the concrete trapezoidal channel would include water extraction, removal of sediment and vegetation, and dredging to its existing (and original) invert elevation. Minor riprap drainage improvements are proposed to address problem erosion from off-site North County Transit District Sprinter Station runoff that enters the channel where the channel curves west. Construction access would be available through a chain-link fence gate that provides access to the adjacent banks of the channel. In addition, dirt ramps may be temporarily placed at either end of the concrete channel (or at both ends) to allow backhoe access.



Source: Esri; SanGIS; SANDAG.



**Figure 1**  
**Regional Map**

**Spruce Street Drainage Improvements IS/MND**

Path: P:\2014\60313771\_Esc\_Mission\900-CAD-GIS\920 GIS\922\_Maps\SpruceStreet\_IS\_MND\Regional\_Map.mxd, 8/5/2015, Daniel Arellano

### Spruce Street Underground Culvert

The channel continues west underground beneath South Spruce Street, where it then turns and conveys drainage northward. The existing reinforced-concrete culvert along the northeast side of South Spruce Street has no access other than entry from the northwest or southeast openings, located just north of West Grand Avenue and just northeast of the West 2nd Avenue/South Spruce Street intersection. These access points have allowed for sediment removal in the past but create difficult and hazardous conditions for maintenance workers. For this project, accumulated sediment within the reinforced-concrete box culvert would be removed via a contractor-selected method that would likely include different approaches to mechanical dredging. During sediment removal, four 36-inch manholes (access shafts) spaced approximately 90 feet apart would be permanently installed in the existing box culvert along South Spruce Street, between West 3rd Street and Grand Avenue. These access shafts would improve ventilation for construction personnel during dredging, and installation of the permanent maintenance manholes would improve maintenance access for minimizing potential vector and flooding hazards.

### Soft-Bottom Drainage Improvements—West Grand Avenue to West Valley Parkway

Between West Grand Avenue and West Valley Parkway, the project drainage consists of a short earth-lined channel section directly adjacent to an existing vacant parking lot along its eastern side. Within this earth-lined section, dredging and channel improvement activities would include water extraction, bulk vegetation clearing, and mechanical sediment dredging to the section's original design depth (line and grade) for improved flood control. The existing vacant parking lot would be used as a temporary staging and dewatering area during the dredging and recontouring phase of the earth-lined channel.

#### *Sediment Trap Option*

As a last construction element, removal of the parking lot is being considered, including excavation of portions of the lot down to the channel's thalweg elevation, and ground contouring to establish a sediment-trapping basin in its place. Incorporating the sedimentation basin would require removing and relocating a utility pole currently located along the eastern edge of the parking lot.

The sedimentation basin would integrate a variety of environmental and community enhancements: water quality improvement controls, a permeable pedestrian pathway between West Grand Avenue and West Valley Parkway, a new picnic bench terrace along a constructed retaining wall, a permanent maintenance access path to the channel bottom, and a knoll area for open sitting along the eastern bank. Trees and native shrub cover would be planted along the western bank. As a result, the flat, impervious paved parking area would be replaced with pervious earthen surfaces that offer environmental and aesthetic improvements.

#### *Culvert Improvements*

The reinforced-concrete culvert immediately downstream of the parking lot and under West Valley Parkway would be improved for capacity and hydraulic efficiency. A new 5-foot reinforced-concrete box along the eastern side of the existing reinforced-concrete pipes would be installed to convey the 100-year flood event. A pier nose would be installed between the double reinforced-concrete pipes to reduce turbulence at the culvert and improve laminar flow that would decrease sediment fallout.

Along the main downstream channel adjacent to the North County Transit District Sprinter Station, located between West Valley Parkway and Escondido Creek, the earthen channel with an outlet into Escondido Creek would be cleared of invasive and nonnative vegetation; the existing pedestrian bridge would be removed to improve hydraulic capacity; problematic sediment and debris would be dredged;

and the channel banks would be recontoured to allow conveyance of 100-year floodwaters. After final grading, banks would be planted with native drought-tolerant vegetation for stabilization and a prefabricated pedestrian bridge overcrossing would be installed to provide safe pedestrian access along the north side of West Valley Parkway where the existing sidewalk is discontinuous. The construction of new concrete wingwall structures at the upstream and downstream ends of the channel would further stabilize culvert structures and improve conveyance while minimizing stagnation.

The culvert at the Escondido Creek outfall would be reconstructed for flood control and equipment accessibility from the concrete-lined Escondido Creek flood channel. The reconstruction of the Escondido Creek outfall would accommodate a 4-foot drop in elevation to allow the main channel to reach a minimum drainage slope of 1.5%. This design characteristic is the only element that deviates from the original line and grade of the project drainage, which is necessary to eliminate vector breeding, improve public health and safety, and improve water quality.

### Staging and Hauling Routes

#### *Staging*

Equipment staging and waste stockpiling of the removed vegetation and sediment would occur in the vacant parking lot just east of the existing channel and north of West Grand Avenue. It is expected that additional staging would occur in the unpaved portion of the City's Corporate Public Works Yard off of Washington Avenue. See Figure 2 for details.

#### *Haul Routes*

The vegetation removal, dredging, and recontouring of the earthen channel between Escondido Creek and West 3rd Avenue would involve waste hauling (i.e., hauling of removed vegetation and sediment) around the immediate area to access the vacant parking lot on the northeast side of the short earthen channel. Depending on work location, the following routes are anticipated during construction (see Figure 2 for details):

- West Valley Parkway to South Tulip Street to West Grand Avenue and into the southeast entrance of the vacant parking lot;
- West Valley Parkway to North Tulip Street with a U-turn onto West Grand Avenue and into the southeast entrance of the vacant parking lot; and
- West Valley Parkway to North Tulip Street (north) to North Hale Avenue/Washington Avenue and into the City's Corporate Public Works Yard (if the yard is used for staging).

### Revegetation

The proposed project includes a revegetation plan that would result in revegetation of 0.978 acre in the instream freshwater marsh (0 to 4 feet) consisting of yerba mansa, San Diego sedge, Southwestern spiny rush, arrow reed, and arrowgrass, as well as revegetation of 0.989 acre of mid-terrace and upland areas of the channel (4 feet and above) that would also consist of an all-native seed mix (see Figures 3a and 5b). A restoration ecologist would confirm the upland planting areas before seeding. All seed would be collected within 5 miles of the site (or next closest location if unavailable) from a licensed native seed company upon approval by the restoration ecologist. All seed would be mixed and planted by hand and would be raked to a soil depth of one-quarter inch. Table 1 lists the proposed native candidate restoration species to be included in the restoration plan.

**Table 1: Candidate Restoration Species,  
Spruce Street Drainage Improvements**

Scientific Name	Common Name
<b>Instream (Freshwater Marsh) Palette</b>	
<i>Anemopsis californica</i>	Yerba mansa
<i>Carex spissa</i>	San Diego sedge
<i>Iva hayesiana</i>	San Diego marsh elder
<i>Juncus acutus</i> ssp. <i>Leopoldii</i>	Southwestern spiny rush
<i>Pluchea sericea</i>	Arrow weed
<i>Triglochin concinna</i>	Arrowgrass
<b>Mid-terrace and Upland Palette</b>	
<i>Baccharis salicifolia</i>	Mule fat
<i>Juncus acutus</i> ssp. <i>Leopoldii</i>	Southwestern spiny rush
<i>Encelia californica</i>	California bush sunflower
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>Pluchea sericea</i>	Arrow weed
<i>Rosa californica</i>	California rose
<i>Platanus racemosa</i>	Western sycamore
<i>Populus fremontii</i>	Fremont cottonwood
<i>Salix gooddingii</i>	Black willow
<i>Sambucus mexicana</i>	Blue elderberry
<i>Artemisia californica</i>	California sagebrush
<i>Hymenoclea monogyra</i>	Leafy burrowbush
<i>Isomeris arborea</i>	Bladderpod
<i>Nassella pulchra</i>	Purple needlegrass
<i>Simmondsia chinensis</i>	Jojoba

**1.4 ANTICIPATED PUBLIC MEETINGS/HEARINGS**

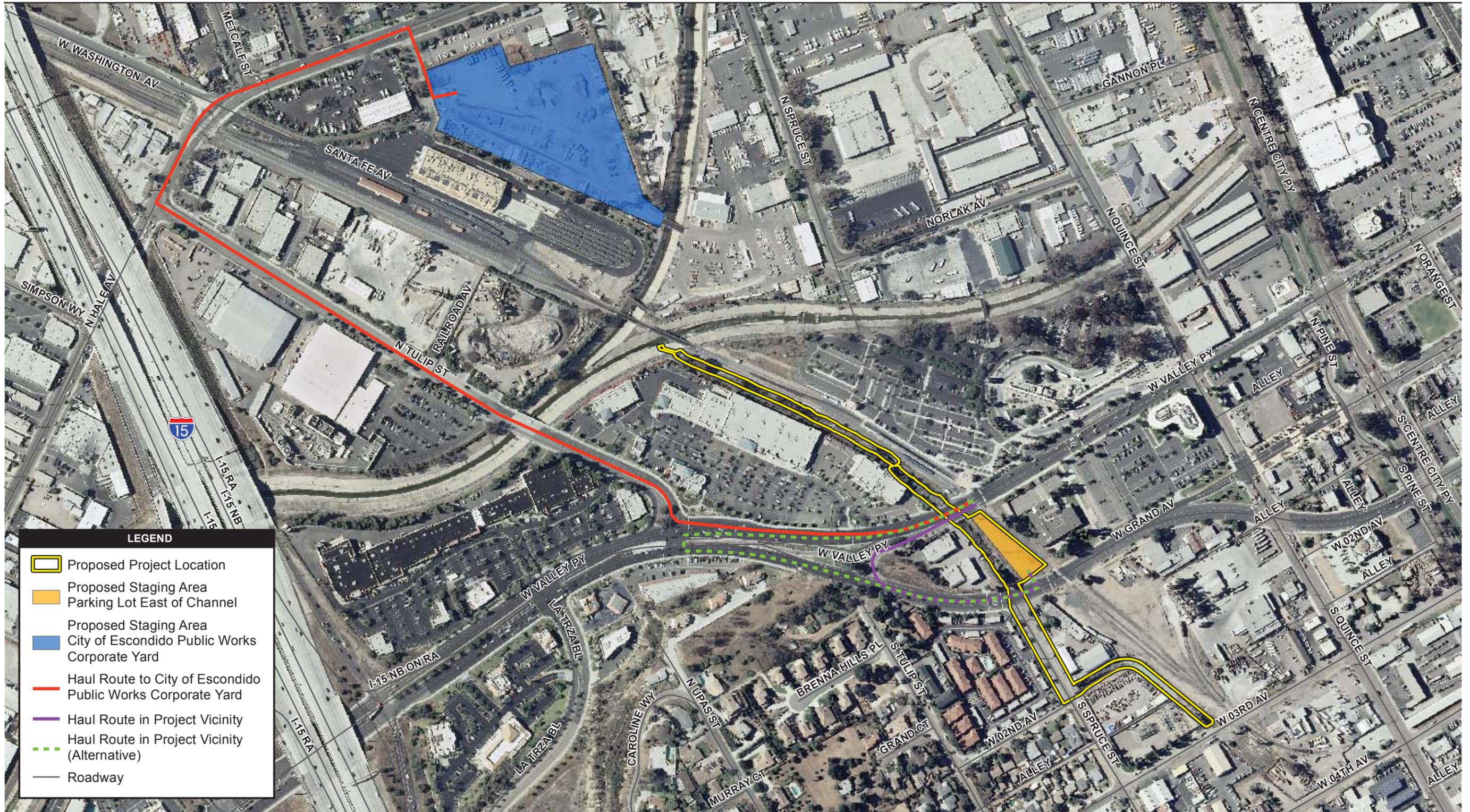
*City Council:* The proposed project is tentatively scheduled for City Council consideration and adoption in February 2016.

**1.5 ENVIRONMENTAL SETTINGS**

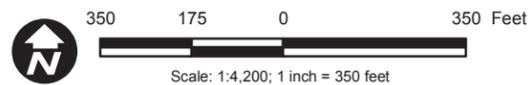
The proposed project is located within a tributary of Escondido Creek in the city of Escondido, San Diego County, California. The channel (the proposed project area) begins north of the intersection of South Spruce Street and West 3rd Avenue as a concrete-lined channel and conveys drainage west (downstream) before going underground at South Spruce Street. The channel daylight west of the intersection of West Grand Avenue and South Spruce Street as an earthen channel and flows west through a short culvert under West Valley Parkway, and then continues as an earthen channel until it drains into Escondido Creek (a concrete-lined flood-control channel).

The proposed project area is bounded to the west by the Escondido Creek flood channel, on the east by West 3rd Avenue, on the north by the North County Transit District railroad (primarily the Escondido Transit Center) and various commercial properties, and to the south by an existing small commercial strip mall and various industrial buildings.

The existing vegetation within the earthen portions of the Spruce Street drainage system includes a substantial presence of nonnative species, as well as minimal native vegetation. Most of the existing vegetation occurs within earthen portions of the channel and channel banks, although some vegetation temporarily establishes in concrete-lined sections of the channel where sediment accumulates. Currently, the predominant habitat within the channel and lower channel banks is freshwater marsh, which includes the native species of southern cattail and American tule, but also nonnatives such as Mexican fan palm,



Source: SanGIS 2014; City of Escondido 2010.



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

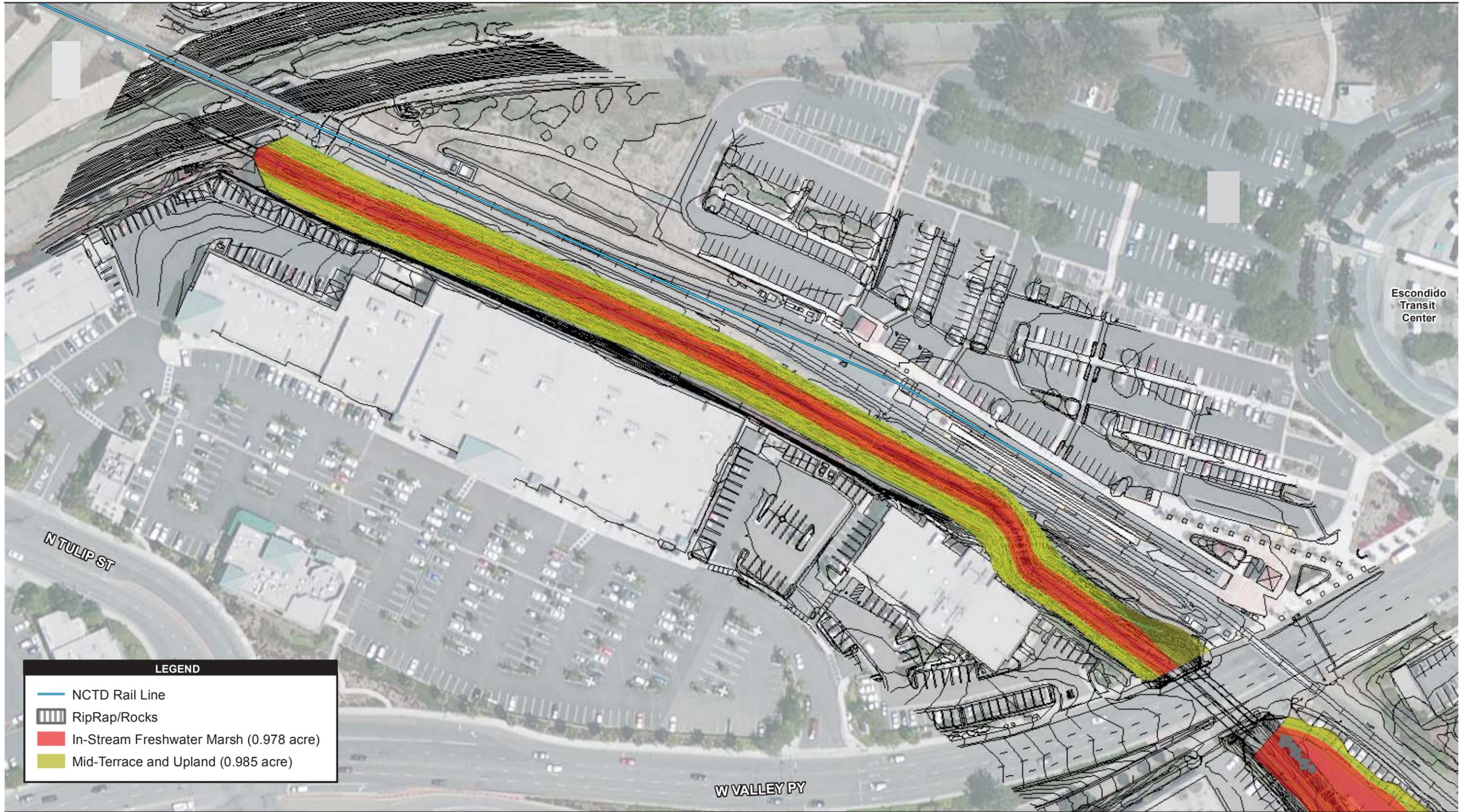
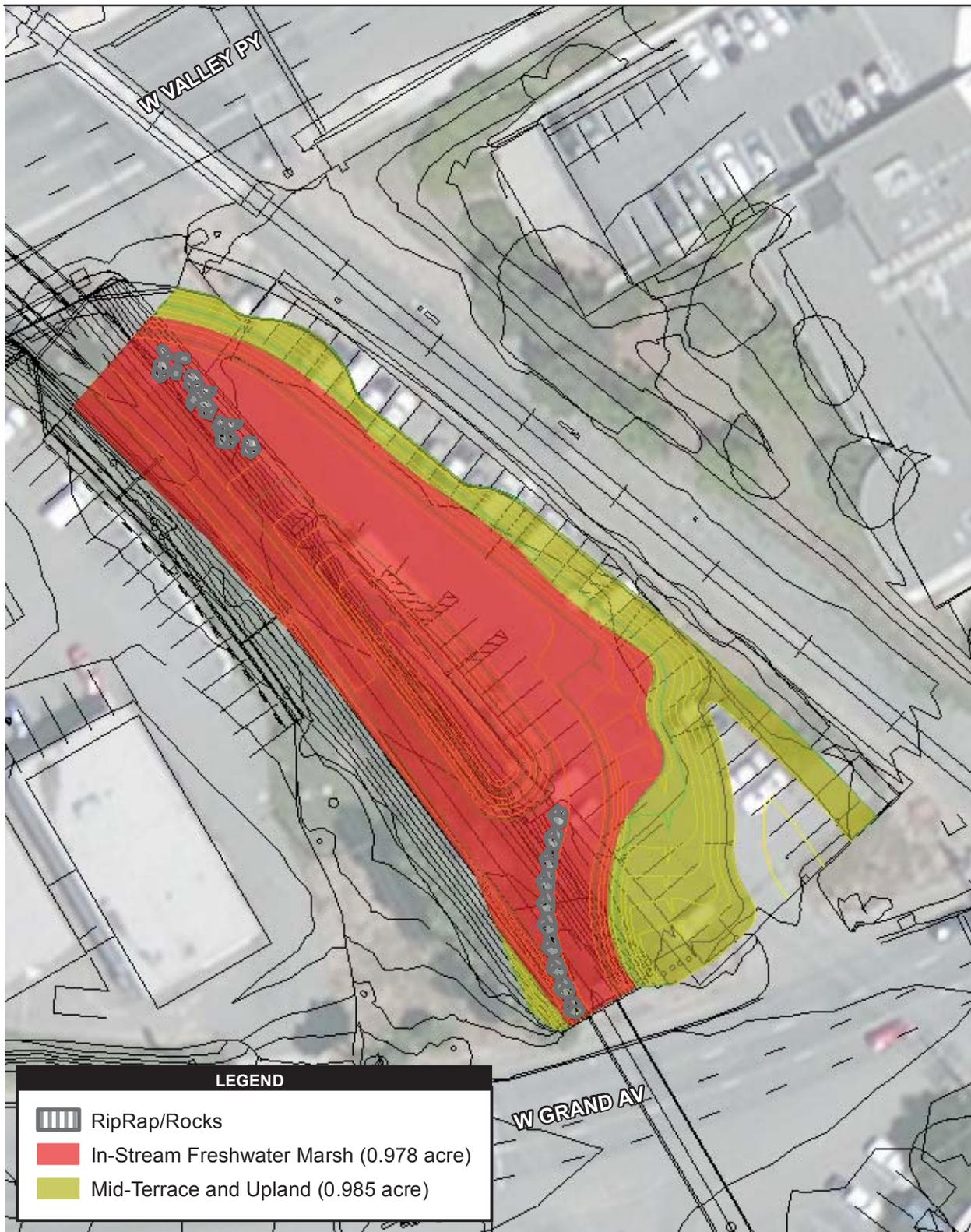
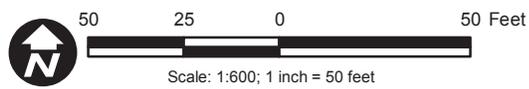


Figure 3a  
Revegetation Area North



Source: NAIP 2014.



**Figure 3b**  
**Revegetation Area South**

Spruce Street Drainage Improvements IS/MND

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broadleaf annuals, and grasses (Figure 4). The channel zone also includes some nonvegetated areas and open water. The higher channel banks and other upland areas within the site include disturbed habitat and urban/developed areas and are dominated by nonnative species such as castor-bean, short-pod mustard, Russian thistle, periwinkle, hottentot-fig, and Mexican fan palm. Potential impacts on sensitive habitat communities and species known to occur on-site or with a moderate to high potential to occur on-site are discussed below in Section 2.1, "Impacts on Biological Resources."

## **1.6 REGULATORY SETTING**

Applicable regional planning documents include the general plan of the City of Escondido and the City of Escondido Subarea Plan (City of Escondido 2001) under the Draft Multiple Habitat Conservation Program (MHCP) (SANDAG 2003).

The Draft MHCP Escondido Subarea Plan documents core conservation areas, known as habitat management plan areas; however, the proposed project is located within the area defined as urban/developed land and is not considered a focused planning area. Although the MHCP Escondido Subarea Plan is currently in the draft phase, the project is consistent with the plan.

Various regulations govern jurisdictional wetlands and nonwetland waters of the United States and state. Moreover, the federal and state agencies that govern activities within these resources must ensure that the activities they authorize will not adversely affect other regulated resources that can occur within jurisdictional waters. As applicable to the project, these other regulated resources include federally listed and state-listed species, migratory birds, and potential historic properties. Additionally, ordinances promulgated by the City of Escondido protect certain resources known to occur in the proposed project area. Therefore, as applicable to the proposed project, jurisdictional waters (including wetlands and other aquatic environments/habitats), and the protected species and potential historic properties that may occur within or adjacent to these waters, are regulated under the following federal and state laws, and local ordinances.

### Federal Regulations

#### *Clean Water Act*

Under Section 404 of the CWA, USACE is authorized to regulate any activity that would result in the discharge of dredged or fill material into jurisdictional waters of the United States, which include those waters listed in 33 Code of Federal Regulations (CFR) Part 328 (Definitions). USACE, with oversight by the U.S. Environmental Protection Agency, has the principal authority to issue CWA Section 404 permits.

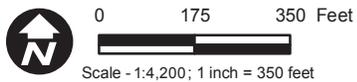
In accordance with CWA Section 401, the San Diego RWQCB (Region 9) certifies that any discharge into jurisdictional waters of the United States will comply with state water quality standards. The San Diego RWQCB, as delegated by the U.S. Environmental Protection Agency, has the principal authority to issue a CWA Section 401 water quality certification or waiver.

#### *Endangered Species Act*

The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) administer the federal Endangered Species Act (ESA). Enacted in 1973, the ESA provides for the conservation of threatened and endangered species and their ecosystems. ESA Section 9 prohibits the take of any fish or wildlife species listed under the ESA as endangered and most species listed as



Source: SanGIS 2012, 2014; City of Escondido 2010



**Figure 4**  
**Jurisdictional Waters Overview Map**

threatened.<sup>1</sup> *Take*, as defined by the ESA, means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” *Harm* is defined as “any act that kills or injures the species, including significant habitat modification.” For threatened and endangered plant species, Section 9 prohibits the “removal or reduction to possession” of any listed plant species “under federal jurisdiction” (i.e., on federal land). The ESA includes mechanisms that provide exceptions to the Section 9 take prohibitions. These are addressed in the ESA under Sections 4(d), 7, and 10(a).

#### *Migratory Bird Treaty Act*

The Migratory Bird Treaty Act (MBTA) of 1918, as amended, implements various treaties and conventions between the United States and Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Under the MBTA, taking, killing, or possessing migratory birds is unlawful as is taking of any parts, nests, or eggs of such birds (16 United States Code 703). The definition of *taking* is different under MBTA from the definition under the ESA and includes only the death or injury of individuals of a migratory bird species or its eggs. *Take* under the MBTA does not include the concepts of harm and harassment as defined by the ESA. It is also important to note that the MBTA defines migratory birds broadly; most of the bird species documented from the proposed project area are covered by the provisions of the MBTA. No permit is issued under the MBTA; however, the proposed activities would need to comply with measures that would avoid or minimize effects on migratory birds.

#### State Regulations

##### *Section 401 of the Clean Water Act*

The San Diego RWQCB has primary authority for permit and enforcement activities for this project under the Porter-Cologne Water Quality Control Act (California Water Code Sections 13000 through 13999.10) and the CWA on behalf of the State Water Resources Control Board. Given the nature of the proposed project, the San Diego RWQCB will require a CWA Section 401 water quality certification (Section 401 Certification) to ensure compliance with established water quality standards (and possibly other project-specific requirements) because of the potential to discharge pollutants into regulated receiving waters. Water quality standards, according to the CWA (40 CFR 131), include beneficial uses, water quality objectives, and the antidegradation policy. Under the CWA, USACE cannot issue the project an individual or nationwide Section 404 permit until the RWQCB grants the water quality certification. For the Section 401 Certification process, the RWQCB typically uses the delineation verified by USACE as the basis for determining impacts to waters of the United States

##### *California Fish and Game Code*

The CFGC regulates the taking or possession of birds, mammals, fish, amphibians, and reptiles, as well as natural resources such as wetlands and waters of the state. It includes the California Endangered Species Act (CESA) (Sections 2050–2115) and streambed alteration agreement regulations (Sections 1600–1616). These sections are described further below.

#### Sections 1600–1616

Pursuant to Section 1600 et seq. of the CFGC, CDFW regulates activities of an applicant’s project that would substantially alter the flow, bed, channel, or bank of streams or lakes, unless the applicant meets

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<sup>1</sup> The protection of threatened species under Section 9 is discretionary through a rule issued under Section 4(d) of the ESA. Until a “4(d) rule” is issued by NMFS, threatened anadromous fish or marine species are not protected by the ESA. By regulation, USFWS automatically affords Section 9 protection to threatened species at the time of listing. These protections later can be modified by USFWS through a 4(d) rule.

certain conditions outlined by CDFW. The limits of CDFW jurisdiction are defined in CFGC Section 1600 et seq. as the “bed, channel, or bank of any river, stream,<sup>2</sup> or lake designated by CDFW in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit.”<sup>3</sup> However, in practice, CDFW usually extends its jurisdictional limit and assertion to the top of a bank of a stream, the bank of a lake, or outer edge of the riparian vegetation, whichever is wider.

In some cases, drainage ditches and retention ponds<sup>4</sup> can be potentially considered under the regulatory administration of CDFW. CDFW provides specific guidance concerning its regulatory administration in 14 CCR Section 720 (Designation of Waters of Department Interest):

For the purpose of implementing Sections 1601 and 1603 of the Fish and Game Code, which requires submission to the department of general plans sufficient to indicate the nature of a project for construction by or on behalf of any person, governmental agency, state or local, and any public utility, of any project which will divert, obstruct, or change the natural flow or bed of any river, stream, or lake designated by the department, or will use material from the streambeds designated by the department, all rivers, streams, lakes, and streambeds in the State of California, including all rivers, streams, and streambeds, *which may have intermittent flows of water*, are hereby designated for such purpose. [Italics added.]

#### Sections 2050–2115

Any proposed impact on state-listed species within or adjacent to the proposed project area would require a permit under the CESA. The CESA generally parallels the main provisions of the federal ESA and is administered by CDFW. The CESA prohibits take of wildlife and plants listed as threatened or endangered by the California Fish and Game Commission. *Take* is defined under the CFGC as any action or attempt to “hunt, pursue, catch, capture, or kill.” Therefore, take under the CESA does not include “the taking of habitat alone or the impacts of the taking.”<sup>5</sup> Rather, the courts have affirmed that under the CESA, “taking involves mortality.”

The CESA allows exceptions to the take prohibition for take that occurs during otherwise lawful activities. The requirements of an application for incidental take permit under the CESA are described in Section 2081 of the CFGC. Incidental take of state-listed species may be authorized if an applicant submits an approved plan that minimizes and “fully mitigates” the impacts of this take. Therefore, any proposed impact on state-listed species within or adjacent to the project area would require an incidental take permit under the CESA.

CFGC Section 2080.1 allows an applicant that has obtained a federal incidental take statement as part of a biological opinion pursuant to an ESA Section 7 consultation or an incidental take permit under ESA Section 10(a) to notify the CDFW Director in writing that the applicant has been issued an incidental take statement or permit pursuant to the ESA and submit a copy to the CDFW Director. The Director then has 30 days to determine whether the incidental take statement or permit is “consistent” with the CESA in the form of a written “consistency determination.” If the Director determines that the incidental take statement or permit is consistent with the CESA, the applicant does not need to obtain separate take authorization

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<sup>2</sup> California Code of Regulations (CCR) Title 14, Section 1.72 defines a stream as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation.”

<sup>3</sup> This also includes the habitat upon which they depend for continued viability (CFGC Division 5, Chapter 1, Section 45, and Division 2, Chapter 1, Section 711.2[a]).

<sup>4</sup> 14 CCR Section 1.56 defines a lake as a feature that “includes lakes or man-made reservoirs.”

<sup>5</sup> *Environmental Council of Sacramento v. City of Sacramento*, 142 Cal. App. 4th 1018 (2006).

from CDFW in the form of an incidental take permit under CFGC Sections 2081(b) and 2081(c). However, consistency determinations apply only in those situations where the affected species is listed under both the ESA and the CESA. If the species is listed only under the CESA, an applicant must obtain an incidental take permit under CFGC Sections 2081(b) and 2081(c).

### Section 3503

Under CFGC Division 4, Part 2, Chapter 1, Section 3503.5, “it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto,” where “take” is defined under Division 0.5, Chapter 1, Section 86 as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” In addition, the MBTA restricts the killing of migratory birds or destruction of active migratory bird nests and/or eggs.

### *Porter-Cologne Water Quality Act*

Under Section 13000 et seq. of the California Water Code (the 1969 Porter-Cologne Water Quality Control Act), the RWQCBs are authorized to regulate any activity that would result in discharges of waste or fill material to waters of the state, including “isolated” waters and wetlands (e.g., vernal pools and seeps). Waters of the state include any surface water or groundwater within the boundaries of the state (California Water Code Section 13050[e]). The RWQCB also adopts and implements water quality control plans (“basin plans”) that recognize and are designed to maintain the unique characteristics of each region with regard to natural water quality, actual and potential beneficial uses, maintaining water quality, and addressing the water quality problems of that region.

Designated beneficial uses of state waters that may be protected against quality degradation include preservation and enhancement of fish, wildlife, designated biological habitats of special significance, and other aquatic resources or preserves.

### *Natural Community Conservation Planning Act of 1991*

The Natural Community Conservation Planning Act is designed to conserve natural communities at the ecosystem scale while accommodating compatible land use. CDFW is the principal state agency implementing the Natural Community Conservation Planning Act Program. Conservation plans developed in accordance with the act (i.e., natural communities conservation plans) provide for comprehensive management and conservation of multiple wildlife species and identify and provide for the regional or areawide protection and perpetuation of natural wildlife diversity while allowing compatible and appropriate development and growth. Project-specific permits under the Natural Community Conservation Planning Act are not issued; however, proposed City-authorized projects (e.g., this project) must comply with California’s Natural Community Conservation Planning Act Program.

### City of Escondido Regulations and Ordinances

#### *Tree Protection Ordinance*

City ordinance protects against the removal of historically significant and mature trees within Escondido city limits, with a focus on oak tree protection. The City defines protected trees as “any oak (*Quercus* sp.) which has a ten (10) inch or greater DBH [diameter at breast height], or any other species or individual specimen listed on the local historic register, or determined to substantially contribute to the historic character of a property or structure listed on the local historic register, pursuant to Article 40 of the Escondido Zoning Code (2001).”

### *City of Escondido General Plan*

A general plan is a statement of long-range public policy to guide the use of private and public lands within a community's boundaries. The policies within the plan are intended to become the basis for decisions by elected and appointed officials. The *City of Escondido General Plan* is both general and comprehensive in that it provides broad guidelines for development in the city while addressing a wide range of issues that will affect the city's desirability as a place to live and work. The general plan represents both an evaluation and vision of the future, typically 15–20 years, and beyond. The goals and policies are aimed at guiding growth and development in that direction.

The general plan is an internally consistent document in that the goals, objectives, policies, principles, and standards present a comprehensive, unified program for development. California planning law requires consistency between the general plan and its implementation programs—zoning and subdivision ordinances, growth management policies, capital improvements programming, specific plans, environmental review procedures, building and housing codes, and redevelopment plans.

The *City of Escondido General Plan* update was adopted by the City Council in May 2012 and ratified by the voters on November 6, 2012 (Proposition N). General plan elements that could apply to the Spruce Street drainage improvements include Biological Policies K1.1 through 1.6 and Natural Resources Policies G1.1 through G1.3.

### *Stormwater Management and Discharge Control Ordinance*

Under Chapter 22, Article 2 (Stormwater Management and Discharge Control) of the City of Escondido Municipal Code, it is unlawful for any person to discharge nonstormwater to the MS4, except as provided in Municipal Code Section 22-23 (which lists exceptions to discharge prohibitions). Although there are several nonstormwater discharges that the City allows to be discharged to the MS4 in accordance with state allowances, the City identifies the following as illicit discharges to the MS4 that are strictly prohibited:

- sewage;
- discharges of wash water resulting from the hosing or cleaning of gas stations, auto repair garages, or other types of automotive service facilities;
- discharges resulting from the cleaning, repair, or maintenance of any type of equipment, machinery, or facility including motor vehicles, cement-related equipment, and porta-potty servicing, etc.;
- discharges of wash water from mobile operations such as mobile automobile washing, steam cleaning, power washing, and carpet cleaning;
- discharges of wash water from the cleaning or hosing of impervious surfaces in municipal, industrial, commercial, and residential areas including parking lots, streets, sidewalks, driveways, patios, plazas, work yards, and outdoor eating or drinking areas, etc.;
- discharges of runoff from material storage areas containing chemicals, fuels, grease, oil, or other hazardous materials;
- discharges of pool or fountain water containing chlorine, biocides, or other chemicals;
- discharges of pool or fountain filter backwash water;
- discharges of sediment, pet waste, vegetation clippings, or other landscape or construction-related wastes; and

- discharges of food-related wastes (e.g., grease, fish processing, and restaurant kitchen mat and trash bin wash water).

*Excavations and Grading Ordinance*

Chapter 33, Article 55 (Excavations and Grading) of the City of Escondido Municipal Code was drafted to ensure that excavation and grading activities for development projects occur in a manner that protects:

- the natural and topographic character and identity of the environment;
- the visual integrity of hillsides and ridgelines;
- sensitive species and unique geologic/geographic features; and
- the health, safety, and welfare of the general public.

**1.7 REGULATORY APPROVALS**

The regulatory approvals listed in Table 2 would be obtained for the proposed operations and maintenance activities.

**Table 2: Permits**

<b>Resource Agency</b>	<b>Permit Type</b>
U.S. Army Corps of Engineers	Standard individual permit
California Department of Fish and Game	Streambed alteration agreement
San Diego Regional Water Quality Control Board	Section 401 water quality certification
North County Transit District	Right of entry permit

## SECTION 2.0: DISCUSSION OF ENVIRONMENTAL IMPACTS

An environmental checklist (Appendix A) was prepared as a preliminary assessment to determine whether the drainage improvement activities associated with the proposed project would have the potential to result in significant environmental impacts. Based on this initial assessment, it was determined that the proposed project would not have an impact on the following resource areas: Aesthetics, Greenhouse Gas Emissions, Land Use/Planning, Population and Housing, Transportation and Traffic, Agriculture and Forestry, Hazards and Hazardous Materials, Hydrology and Water Quality, Mineral Resources, Public Services, Utilities and Service Systems, Air Quality, Geology and Soils, Noise, and Recreation. The proposed project would not degrade the existing visual quality of the area, and it would not convert agricultural lands or conflict with agricultural or forest zoning. The proposed project would not violate air quality standards, and the proposed project area is not located in an area subject to greater seismic risk than surrounding areas. The proposed project would not create health hazards to the public, nor would it conflict with applicable land use policies and plans. It would cause no permanent increase in noise and would not affect population growth or traffic congestion. These resources are evaluated further in Appendix A of this document. The environmental resources that were determined to be potentially affected by the proposed project are Biological Resources and Cultural Resources.

The two issue areas that were determined to be potentially affected by the proposed project are discussed in detail in the following sections.

### 2.1 BIOLOGICAL RESOURCES

This section is based on the results of a site reconnaissance conducted by AECOM for the 1.60-acre proposed project area on June 18, 2014, to verify that the existing conditions remained essentially unchanged, and to update the existing Arid West Region data forms, from the survey conducted on July 14, 2010, as part of the Phase I efforts for the City's Channel Maintenance Regional General Permit. Subsequent to the 2010 survey, this site was determined to require individual permitting because of the size of the site and the additional work activities needed to clear and stabilize the channel, which precludes its inclusion in the regional general permit applications. Because the wetland delineation for the proposed project area was conducted in 2010 in accordance with regulations that remain current today (e.g., *Corps of Engineers Wetlands Delineation Manual* [Environmental Laboratory 1987] and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* [Environmental Laboratory 2008]), the site did not require redelineation. As a result, existing conditions were compared to the formal delineation completed in 2010 during the June 2014 site reconnaissance.

During the site reconnaissance, the earthen segment of the channel was determined to have remained essentially unchanged; however, a slight increase in the extent of coastal and valley freshwater marsh was noted. The concrete segment of the channel was previously mapped as unvegetated open water; however, during the June 2014 site reconnaissance survey, small areas of coastal and valley freshwater marsh and southern willow scrub were observed within the channel. Because of the amount of wetland vegetation, two additional wetland sample points were dug within the concrete-lined segment of the proposed project area and an Arid West region data form was completed for these new wetland sample points. For further details regarding the June 2014 site reconnaissance, see Attachment A of Attachment 1.

AECOM cross-referenced regional data sets both before and after conducting field surveys, the results of which are incorporated into the analyses below. These data sets include:

- CDFW Natural Diversity Database (CNDDDB) (CDFG 2012a),
- California Native Plant Society (CNPS) Rare Plants Database (CNPS 2012),
- California Consortium of Herbaria (CCH 2012),
- San Diego Natural History Museum Plant Atlas Database (SDNHM 2012),
- CDFW Vegetation Classification and Mapping Program Inventory (CDFG 2012b),
- National Wetlands Inventory Wetlands Mapper (USFWS 2012), and
- U.S. Natural Resources Conservation Service Web Soil Survey (NRCS 2012).

### **2.1.1 Existing Conditions**

The following discussion briefly describes the biological characteristics specific to the proposed project's biological study area (BSA). The BSA encompasses the proposed project area and a 100-foot buffer area.

#### Biological Setting

##### *Natural Communities and Other Land Covers*

AECOM ecologists conducted vegetation mapping during the June 18, 2014, site reconnaissance survey. During the site reconnaissance it was determined that the existing vegetation within the earthen portions of the Spruce Street drainage system includes a substantial presence of nonnative species, as well as minimal native vegetation. Most of the existing vegetation occurs within earthen portions of the channel and channel banks, although some vegetation temporarily establishes in concrete-lined sections of the channel where sediment accumulates. Currently, the predominant habitat within the channel and lower channel banks is freshwater marsh, which includes the native species of southern cattail and American tule, but also nonnatives such as Mexican fan palm, broadleaf annuals, and grasses. The channel zone also includes some nonvegetated areas and open water. The higher channel banks and other upland areas within the site include disturbed habitat and urban/developed areas and are dominated by nonnative species such as castor-bean, short-pod mustard, Russian thistle, periwinkle, hottentot-fig, and Mexican fan palm. Table 3 depicts the habitats occurring within the BSA, per the Holland Classification System, as modified for San Diego County by Oberbauer et al. (2008).

Vegetation communities and other land cover types classified as "sensitive" within this MND were determined by applying the following regulatory context. Guidance for determining sensitive vegetation communities is provided by the resource agencies including CDFW and CNPS, as well as supporting documentation such as the CNDDDB. These federal, state, and local agencies and related publications are typically in concurrence regarding the classification of sensitive vegetation communities and other land cover types. For example, vegetation communities or other cover types that are considered potential jurisdictional waters of the United States and state typically result in the vegetation community or nonvegetated area being considered sensitive. For this proposed project, these waters are regulated by CWA sections 401 and 404, CFGC Section 1600 *et seq.*, and the Porter-Cologne Water Quality Control Act. In addition, vegetation communities are considered sensitive if identified as warranting mitigation in the MHCP Escondido Subarea Plan. Biologically, the vegetation communities that provide the highest habitat values within the BSA are the structurally diverse riparian communities.

Of the seven habitats/land cover types occurring within the proposed project area, five are sensitive according to the federal, state, and local guidance above and are denoted above in Table 3 with an asterisk. The City has designed the project to avoid sensitive habitats where feasible and proposes a native revegetation plan that would result in benefits that are greater than the impacts. As shown in Table

3, the project estimates a total of approximately 1.61 acres of impacts within the proposed project area. Potential impacts on sensitive habitat communities and species known to occur on-site or with a moderate to high potential to occur on-site are discussed below.

**Table 3: Vegetation Communities and Cover Types Within and Adjacent to the Proposed Project Area**

Vegetation Communities and Cover Types <sup>1</sup>	Acres within the Study Area <sup>2</sup>			Dominant/Significant Species <sup>3</sup>
	Project Footprint	100-Foot Buffer	Total	
<b>Riparian and Wetland</b>				
Southern willow scrub*	0.01	0	0.01	<i>Salix gooddingii</i> , <i>S. lasiolepis</i> , <i>Typha domingensis</i>
Coastal and valley freshwater marsh*	0.46	0	0.46	<i>Typha domingensis</i>
Eucalyptus woodland*	0.09	0.11	0.20	<i>Eucalyptus citriodora</i> , <i>E. camaldulensis</i> , <i>E. sideroxylon</i> , <i>Salix laevigata</i> (one individual); <i>Ricinis communis</i>
Open water*	0.12	0	0.12	N/A
Unvegetated channel*	0.04	0	0.04	N/A
<b>Subtotal Riparian and Wetland</b>	<b>0.72</b>	<b>0.11</b>	<b>0.83</b>	
<b>Upland</b>				
None			0.53	
<b>Subtotal Upland</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Other</b>				
Urban/developed	0.39	20.45	20.84	<i>Vinca</i> sp., <i>Carpobrotus edulis</i> , <i>Washingtonia robusta</i>
Disturbed habitat	0.50	1.79	2.28	<i>Ricinis communis</i> , <i>Rumex crispus</i> , <i>Conyza bonariensis</i> , <i>Hirschfeldia incana</i> , <i>Salsola tragus</i> , <i>Anagallis arvensis</i> , <i>Melilotus albus</i> , <i>Lolium multiflorum</i> , <i>Washingtonia robusta</i>
<b>Subtotal Other</b>	<b>0.88</b>	<b>22.24</b>	<b>23.12</b>	
<b>GRAND TOTAL</b>	<b>1.60</b>	<b>22.35</b>	<b>23.95</b>	

N/A = not applicable

<sup>1</sup> Asterisks denote a sensitive vegetation community (i.e., regulated by a resource agency or identified as warranting mitigation in the Multiple Habitat Conservation Program Escondido Subarea Plan).

<sup>2</sup> All acreages rounded to two decimal places after summation.

<sup>3</sup> Based on AECOM (2014) survey results.

#### *Potential Jurisdictional Waters of the United States and State*

The Spruce Street drainage channel is a developed channel located in the Carlsbad Hydrologic Unit and Escondido Hydrologic Areas (RWQCB Basin 904.62, USACE Hydrologic Unit Code 18070303). It consists of an earth-lined segment and a connecting concrete bottom segment that conveys stormwater and other runoff to the flood control channel of Escondido Creek, which eventually flows to the Pacific Ocean. Based on this hydrologic and ecological context, the channel is considered to be located within potential jurisdictional waters and is protected by federal, state, and local regulations.

During the site reconnaissance AECOM had access to the BSA to sample vegetation, soils, and hydrology in support of the formal jurisdictional delineation for waters of the United States and state. The presence of wetlands and other waters was assessed based on pre-field surveys and ambient site conditions, along with the formal delineation of wetland and nonwetland waters pursuant to the guidance and criteria outlined in and in accordance with the following:

- 33 CFR 328 (definition of waters of the United States)
- Regulatory Guidance Letters 07-02, 88-06, and 05-05
- *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) (1987 Manual)
- *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0) (Environmental Laboratory 2008)<sup>6</sup> (2008 Supplement)
- *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual* (USACE 2008)

A total of 0.97 acre of jurisdictional waters of the United States and state (sensitive habitat) occurs within the proposed project area (Table 4) (Figures 5a through 5d). Of the 0.97 acre, 0.78 acre is within the earthen segment of the channel and is composed of 0.45 acre of waters of the United States in the form of coastal and valley freshwater marsh (0.41 acre), unvegetated channel (0.04 acre), and urban (<0.01 acre); and 0.33 acre of waters of the state under the exclusive purview of CDFW in the form of eucalyptus woodland (0.09 acre) and disturbed habitat (0.24 acre). The additional 0.19 acre within the concrete-lined channel segment is waters of the United States in the form of coastal and valley freshwater marsh (0.05 acre), southern willow scrub (0.01 acre), and open water (0.12 acre); and less than 0.01 acre of waters of the state under the exclusive purview of CDFW in the form of eucalyptus woodland (<0.01 acre). See Section 1.0, "Project Description," for further information regarding biological resources and waters of the United States and state that occur within the proposed project area project site and that have the potential to be affected by project activities.

**Table 4: Waters of the United States and State Occurring within the Proposed Project Area**

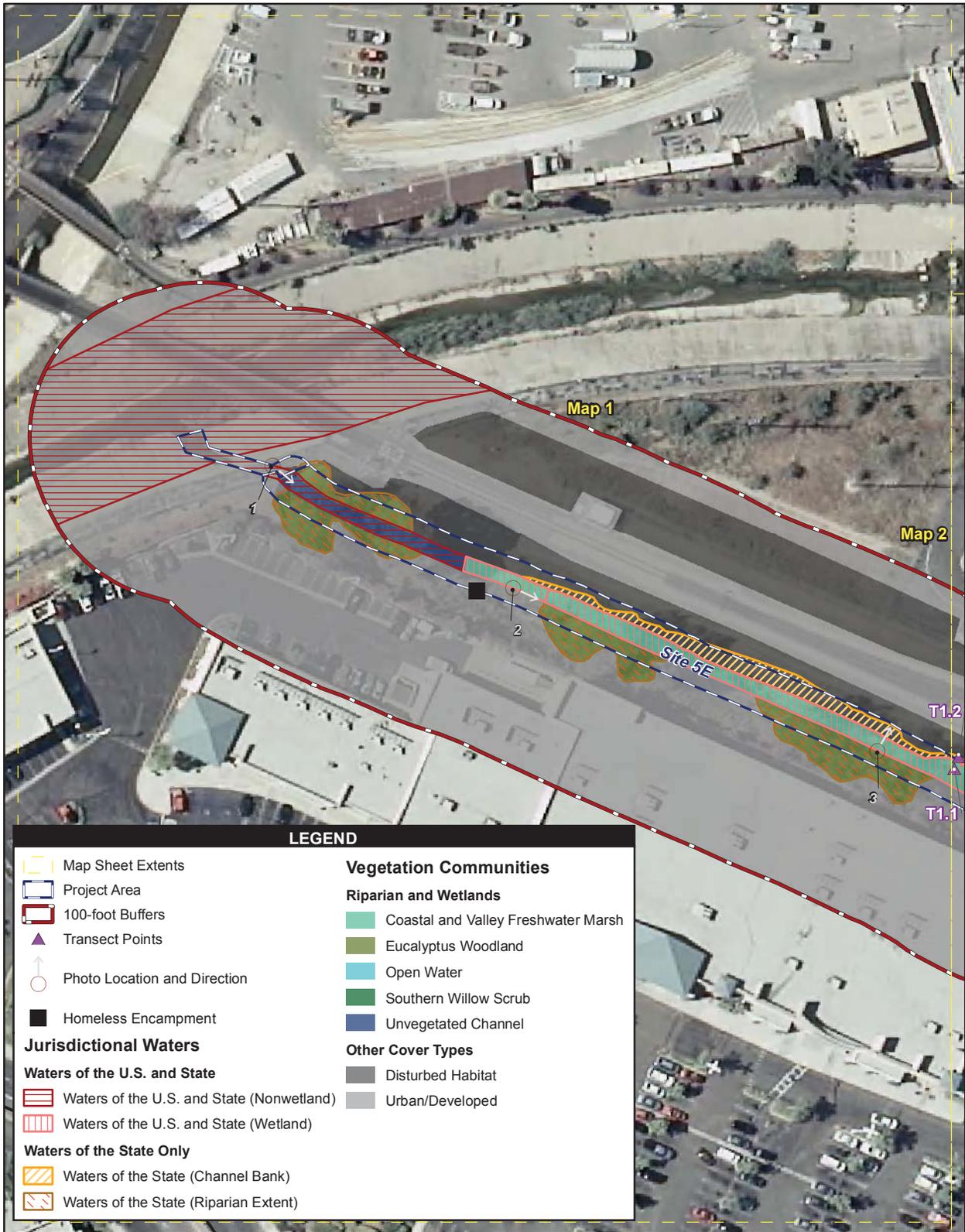
Type of Channel Bottom	Type of Waters	Type of Habitat (Holland 1986; Oberbauer et al. 2008)	Acres/ Linear Feet within Survey Area <sup>a,b</sup>
<b>Waters of the United States and State (USACE, San Diego RWQCB, and CDFW)</b>			
Earthen	Wetland	Coastal and valley freshwater marsh*	0.41/1,210
	Other waters	Unvegetated channel*	0.04/174
	Other waters	Urban/Developed*	<0.01
<i>Subtotal Earthen Segment</i>			<i>0.46/1,384</i>
Concrete	Wetland	Coastal and valley freshwater marsh*	0.05/147
	Wetland	Southern willow scrub*	0.01/30
	Other waters	Open water*	0.12/390
	Other waters	Urban/developed/culvert*	0.01/74
<i>Subtotal Concrete-Lined Segment</i>			<i>0.19/641</i>
<b>Subtotal Waters of the United States and State</b>			<b>0.64/2,025</b>
Jurisdictional Waters of the State, CDFW Exclusively			
Earthen	Riparian extent	Eucalyptus woodland*	0.09
	Channel bank	Disturbed habitat*	0.24
<i>Subtotal Earthen Segment</i>			<i>0.33</i>
Concrete	Riparian extent	Eucalyptus woodland*	<0.01
<i>Subtotal Concrete-Lined Segment</i>			<i>&lt;0.01</i>
<b>Subtotal Jurisdictional Waters of the State Only (acres)</b>			<b>0.33</b>
<b>Grand Total Jurisdictional Waters (acres)</b>			<b>0.97/2,025</b>

<sup>a</sup> Linear feet are provided only for linear aquatic resources such as stream/riverine features and wetland/riparian corridors directly adjacent to stream features.

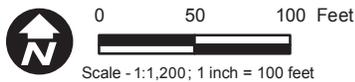
<sup>b</sup> Acreages are rounded to the nearest thousandth, which may account for minor rounding error.

CDFW = California Department of Fish and Wildlife; RWQCB = Regional Water Quality Control Board; USACE = U.S. Army Corps of Engineers

<sup>6</sup> It should be noted that the 1987 Manual and 2008 Supplement are guidance documents for delineating waters in the form of wetlands only.



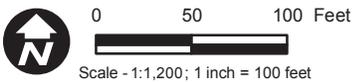
Source: SanGIS 2012, 2014; City of Escondido 2010



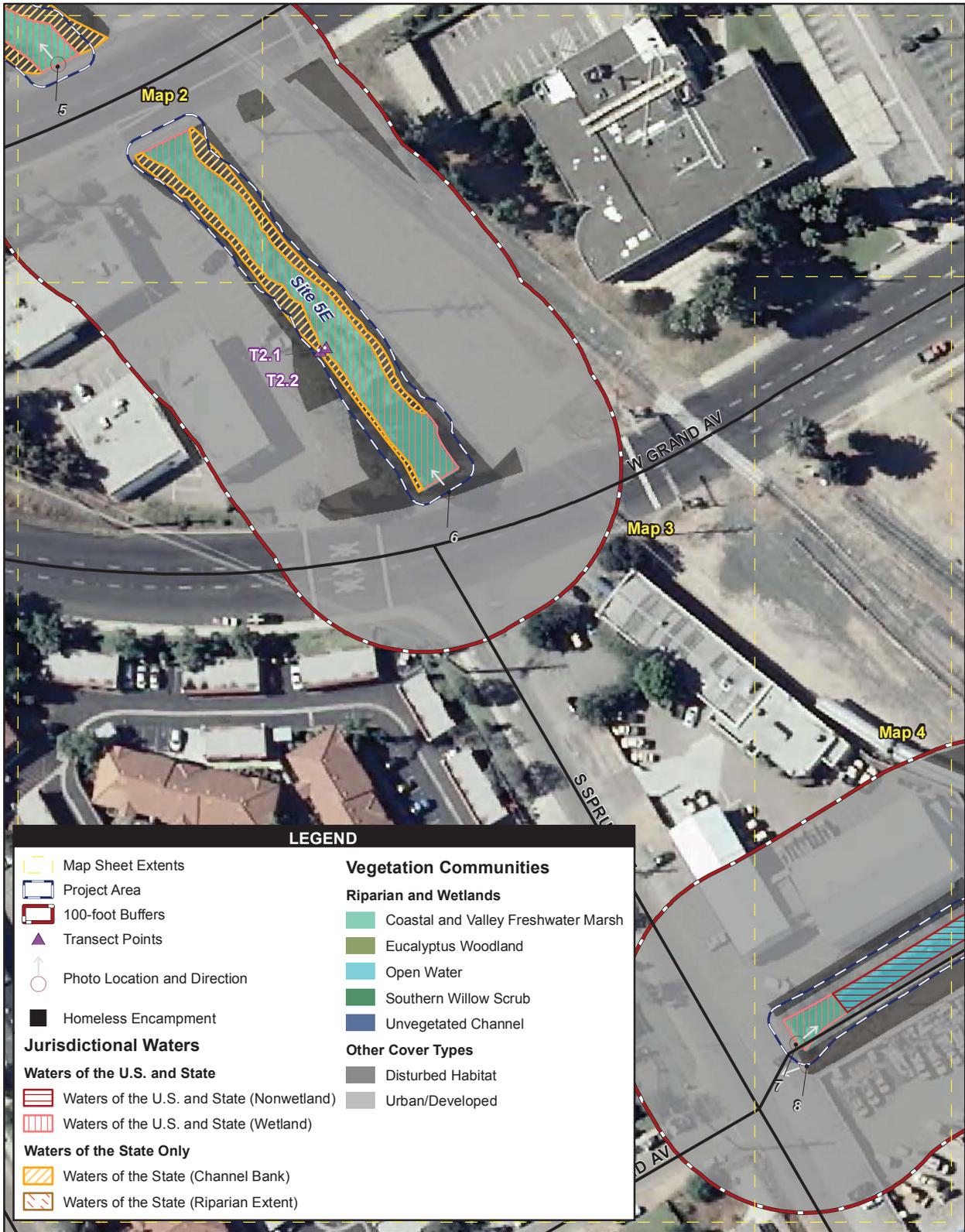
**Figure 5a**  
**Detailed Jurisdictional Waters**  
**Map 1**



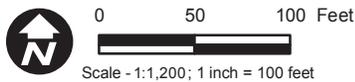
Source: SanGIS 2012, 2014; City of Escondido 2010



**Figure 5b**  
**Detailed Jurisdictional Waters**  
**Map 2**



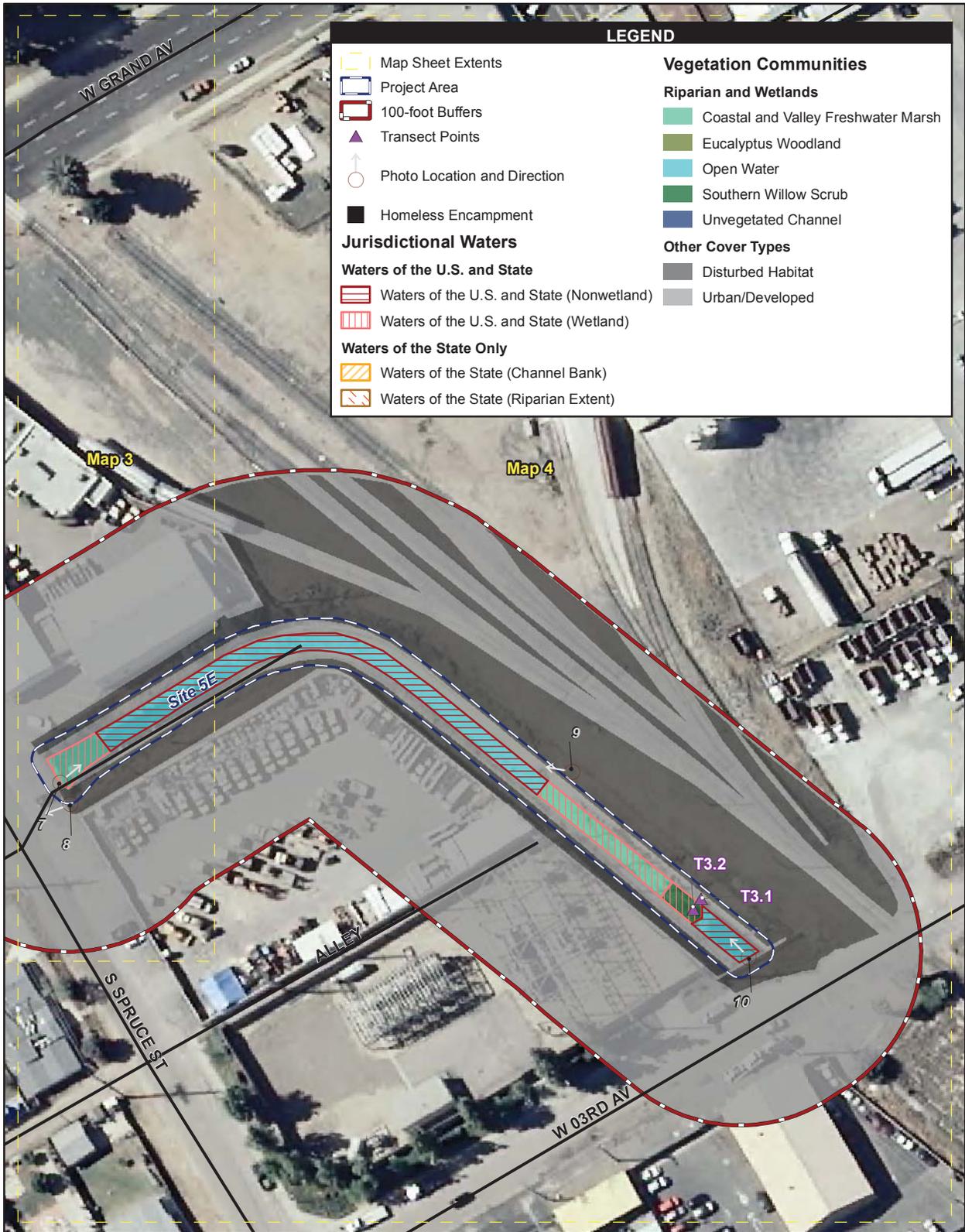
Source: SanGIS 2012, 2014; City of Escondido 2010



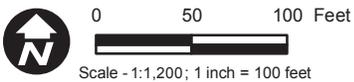
**Figure 5c**  
**Detailed Jurisdictional Waters**  
**Map 3**

**Spruce Street Drainage Improvements IS/MND**

Path: P:\2014\60313771\_Esc\_MissionP\900-CAD-GIS\920 GIS\922\_Maps\SpruceStreet\_IS\_MND\Veg\_Wetland\_ID\_series.mxd, 8/10/2015, Daniel Arellano



Source: SanGIS 2012, 2014; City of Escondido 2010



**Figure 5d**  
**Detailed Jurisdictional Waters**  
**Map 4**

### *Special-Status Species*

For the purposes of this report, species were considered special-status if they met at least one of the following criteria:

- Listed or proposed for listing (including candidate species) under the FESA and CESA.
- CDFW Species of Special Concern.
- CDFW Fully Protected species.
- California Rare Plant Rank Species (formerly CNPS listed species<sup>7</sup>): (CRPR) 1A (presumed extinct in California and rare/extinct elsewhere), 1B (rare, threatened, and endangered in California and elsewhere), 2A (presumed extinct in California, but more common elsewhere), 2B (rare, threatened, or endangered in California, but more common elsewhere), or 3 (plants are those for which more information is needed [a review list]) (CNPS 2015). All plants constituting CRPR 1A, 1B, 2A, 2B, and 3 meet the definitions of Sections 2062 and 2067 (CESA) of the California Fish and Game Code.
- Some (as specified in CNDDDB), but not all, CRPR 4 plant species meet the definitions of Sections 2062 and 2067 (CESA) of the CFGC (CNPS 2015). CRPR 4 plants are those of limited distribution (watch list) (CNPS 2015).

Species are given special consideration by resource agencies such as USFWS and CDFW because of their limited distribution (i.e., rarity), their local significance, and/or the threat of extinction by human activities.

To determine the potential for special-status species to occur within the area a CNDDDB quadrangle search for historically documented species occurrences, field surveys and vegetation mapping of the area were conducted. No special-status, threatened, or endangered species were observed during the 2010 and 2014 field surveys, or have designated critical habitat, within the boundaries of the proposed project area and associated 100-foot buffer. Based on the existing habitat within the project area and associated 100-foot buffer, the only special status species with potential to occur in the area would be the Western Red Bat (*Lasiurus blossevillii*) (CDFW:SSC) (WBWG:H<sup>8</sup>).

This species is common in some areas of California, occurring from Shasta County to the Mexican border, west of the Sierra Nevada/Cascade crest and deserts. The winter range includes western lowlands and coastal regions south of San Francisco Bay. There is migration between summer and winter ranges, and migrants may be found outside the normal range. Roosting habitat includes forests and woodlands from sea level up through mixed conifer forests. This species roosts in the foliage of large shrubs and trees, usually sheltering on the underside of overhanging leaves. Foraging has been noted in habitats such as mature orchards, oak woodland, low-elevation conifer forest, along riparian corridors,

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<sup>7</sup> In 2010, the (CDFW) changed the name of the California Native Plant Society (CNPS) Lists in its publications to "California Rare Plant Rank." The change was intended to correct a public misimpression that the CNPS was solely responsible for the rank assignments. Rare Plant Status Review groups (300+ botanical experts from government, academia, nongovernmental organizations, and the private sector) produce the rank assignments for rare plants and both CDFW and CNPS jointly manage this collaborative effort.

<sup>8</sup> The WBWG high designation represents those bat species considered the highest priority for funding, planning, and conservation actions. Information about status and threats to most bat species could result in effective conservation actions being implemented should a commitment to management exist. These species are imperiled or are at high risk of imperilment.

among nonnative trees in urban and rural residential areas, and also near strong lights that attract flying insects. In addition, this species may forage in habitats and agricultural areas adjacent to streams and rivers that do not provide roosting habitat.

The closest known recently documented location of the Western Red Bat was in July 2002 approximately detected 8 miles southeast of the project site in native habitat in which individuals were detected with Anabat technology. Although there is potential for the species to occur within the project area and associated 100-foot buffer, as they occasionally roost in large trees within developed areas, the potential for the species to roost within the project area is low as the site is relatively narrow and highly urbanized,

#### *Migratory Birds, Wildlife Movement, and Migration Corridors*

In addition to the special-status species discussed above, as noted previously, migratory birds are protected under the MBTA. Under the act, most migratory birds are protected during the nesting season, as are the habitats in which they reside. Several species of migratory birds, including raptors (Cooper's hawk and red-shouldered hawk), have the potential to use habitat within and adjacent to the channel during the nesting season.

The proposed project area is highly disturbed and supports minimal native vegetation and is surrounded by developed urban areas. As a result, the channel, in its existing condition provides little value as a corridor for wildlife movement.

#### **2.1.2 Significance Criteria and Impact Analysis**

*The effects of a project on biological resources are considered to be significant if the proposed project would:*

- a. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;*

**Less than Significant Impact with Mitigation Incorporated**—The majority of the project area consists of disturbed habitat and urban developed areas with primarily coastal and valley freshwater marsh within the streambed. To determine the potential for special-status species to occur within the area a CNDDB quadrangle search for historically documented species occurrences, field surveys and vegetation mapping of the area were conducted. No special status species were observed during the 2010 and 2014 field surveys within the facility buffer.

The existing habitat of the project area is highly disturbed and surrounded by urbanization, however historically there was habitat for a variety of species within the project area. In its existing condition, the only potential suitable habitat for a special-status species would be for the Western Red Bat (*Lasiurus blossevillii*). Although there could be potential for this species to occur within the project area, based on the findings from the CNDDB search combined with the narrow and highly urbanized area of the project site the potential for this species to occur within the area is low. All potential impacts to this species would be minor and temporary. As a result, mitigation for this special-status species is not required.

Because project activities would result in direct impacts on small migratory birds, including raptors (Cooper's hawk and red-shouldered hawk), that may breed and nest within the vicinity of the project area, mitigation is required. Mitigation would include but would not be limited to vegetation clearing outside of the breeding season (February 15 through September 15) and surveys by a qualified biologist, which would result in impacts on migratory birds and raptors that would be less than significant.

Two mitigation measures have been identified to avoid and minimize otherwise potentially significant impacts on nesting birds to a level below significance. The nesting season would be avoided if at all possible with applicable preconstruction surveys, flagging of environmentally sensitive avoidance buffers, and biological monitoring through the implementation of the following mitigation measure:

BIO-1: Vegetation clearing shall occur outside of the typical breeding season for raptors and migratory birds (February 15 through September 15). However, if this is not possible, then a qualified biologist will conduct a raptor nesting survey prior to construction to determine the presence or absence of nests in the riparian habitat, and the potential need for additional project mitigation measures.

BIO-2: To the greatest extent feasible, vegetation clearing, dredging, and other mechanized activities within 500 feet of undeveloped vegetation communities will be conducted outside the breeding season for federally protected migratory and listed bird species. In situations where these types of maintenance activities will occur adjacent to undeveloped vegetation communities during the breeding season (February 15 through September 15), the measures outlined in Table 5 will be implemented.

Through the use of these adequate avoidance and minimization measures, the proposed project would have a less-than-significant impact (direct and indirect) on special-status species.

- 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 Game or U.S. Fish and Wildlife Service;*

**Less than Significant Impact with Mitigation Incorporated**—The proposed project would affect a total of 0.97 acre of jurisdictional waters of the United States and state. Of the 0.97 acre, 0.78 acre is within the earthen segment of the channel and is composed of 0.45 acre of waters of the United States in the form of coastal and valley freshwater marsh (0.41 acre), unvegetated channel (0.04 acre), and urban (<0.01 acre); and 0.33 acre of waters of the state under the exclusive purview of CDFW in the form of eucalyptus woodland (0.09 acre) and disturbed habitat (0.24 acre). The additional 0.19 acre within the concrete-lined channel segment is waters of the United States in the form of coastal and valley freshwater marsh (0.05 acre), southern willow scrub (0.01 acre), and open water (0.12 acre); and less than 0.01 acre of waters of the state under the exclusive purview of CDFW in the form of eucalyptus woodland (<0.01 acre).

Although impacts on habitat within the channel would occur, the project proposes a revegetation plan that would result in revegetation of 0.978 acre in the instream freshwater marsh (0 to 4 feet) consisting of yerba mansa, San Diego sedge, Southwestern spiny rush, arrow reed, and arrowgrass, as well as revegetation of 0.989 acre of mid-terrace and upland areas of the channel (4 feet and above) that would also consist of an all-native seed mix. The restoration ecologist would confirm the upland planting areas before seeding. All seed would be collected within 5 miles of the site (or next closest location if unavailable) from a licensed native seed company upon approval by the restoration ecologist. All seed would be mixed and planted by hand and would be raked to a soil depth of one-quarter inch.

**Table 5: Mitigation Measures for Biological Resources**

Measure	Description
<b>Biological Resources General Avoidance and Minimization</b>	
<b>Migratory Bird Avoidance and Minimization</b>	
BIO-1 <b>Nesting Season Avoidance</b>	Vegetation clearing shall occur outside of the typical breeding season for raptors and migratory birds (February 15 through September 15). However, if this is not possible, then a qualified biologist will conduct a raptor nesting survey prior to construction to determine the presence or absence of nests in the riparian habitat, and the potential need for additional project mitigation measures.
BIO-2 <b>Nest Buffers</b>	<p>To the greatest extent feasible, vegetation clearing, dredging, and other mechanized activities within 500 feet of undeveloped vegetation communities will be conducted outside the breeding season for federally protected migratory and listed bird species. In situations where these types of maintenance activities will occur adjacent to undeveloped vegetation communities during the breeding season (February 15 through September 15), the following measures will be implemented:</p> <ol style="list-style-type: none"> <li>1. A preconstruction survey for migratory birds shall be performed by a qualified biologist within 3 days prior to any removal of trees, shrubs, or structures on the project site. If no active nests are found, then no further action will be warranted.</li> <li>2. If an active nest is detected on or within 300 feet of the project site (500 feet for raptors), no work shall be conducted within a 300-foot radius (500 feet for raptors) of the detected nest until a biological monitor determines the nest is no longer active.</li> </ol>
<b>Maintenance and Monitoring Plan</b>	
BIO-3 <b>5-Year Maintenance and Monitoring Plan</b>	A revegetation and monitoring plan for 0.978 acre of instream freshwater marsh and 0.985 acre of terrace and upland habitats would be prepared by the City. The City plans to restore the habitat beyond its existing state through a comprehensive revegetation plan that would include the use of native species. The City would identify a qualified restoration ecologist that would be responsible for preparing the revegetation and monitoring plan. The revegetation and monitoring plan would incorporate an appropriate native species palette to blend in with the existing and surrounding habitats. Preference for habitat community restoration would be determined by the qualified restoration ecologist, and based on the existing and surrounding habitats. The plan would include details of site preparation and implementation, planting specifications, and 5-year maintenance and monitoring procedures. The plan would outline yearly success criteria and remedial measures should the mitigation effort fall short of the success criteria.
<b>Biological Resources</b>	
BIO-4 <b>Mature Tree Protection</b>	All tree replacement would be in accordance with the City's Tree Preservation and Grading Ordinance requirements for mature and any protected trees (Oaks). It is anticipated that any mature and any protected trees (Oaks) would be planted on-site or within adjacent City owned property.

Although construction activities would result in impacts on habitat within the channel, the habitat modifications from the revegetation plan would result in overall net benefits to the habitat and the proposed project's restoration design would reduce and/or eliminate net loss of habitat. As a result, the project may be considered self-mitigating and does not require compensatory mitigation, and the overall impact on species and habitat is less than significant. The native revegetation plan would be successfully incorporated through the implementation of the following mitigation measure:

BIO-3: A 5-year maintenance and monitoring plan shall be prepared by a qualified restoration ecologist. Through the use of this adequate avoidance and minimization measure, the proposed project would have a less-than-significant impact (direct and indirect) on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by CDFW or USFWS.

- c. *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;*

**Less than Significant Impact with Mitigation Incorporated**—As stated above, the proposed project would affect a total of 0.97 acre of jurisdictional waters of the United States and state. Of the 0.97 acre, 0.78 acre is within the earthen segment of the channel and is composed of 0.45 acre of waters of the United States in the form of coastal and valley freshwater marsh (0.41 acre), unvegetated channel (0.04 acre), and urban (<0.01 acre); and 0.33 acre of waters of the state under the exclusive purview of CDFW in the form of eucalyptus woodland (0.09 acre) and disturbed habitat (0.24 acre). The additional 0.19 acre within the concrete-lined channel segment is waters of the United States in the form of coastal and valley freshwater marsh (0.05 acre), southern willow scrub (0.01 acre), and open water (0.12 acre); and less than 0.01 acre of waters of the state under the exclusive purview of CDFW in the form of eucalyptus woodland (<0.01 acre).

The proposed project necessitates work within and around jurisdictional waters. The City has made great efforts to minimize impacts to the greatest extent practicable by incorporating a native revegetation plan as part of the proposed project, while also maintaining the project objectives. The proposed revegetation plan would result in revegetation of 0.978 acre in the instream freshwater marsh (0–4 feet) consisting of yerba mansa, San Diego sedge, Southwestern spiny rush, arrow reed, and arrowgrass, as well as revegetation of 0.989 acre of mid-terrace and upland areas of the channel (4 feet and above) that would also consist of an all-native seed mix. The restoration ecologist would confirm the upland planting areas before seeding. All seed would be collected within 5 miles of the site (or next closest location if unavailable) from a licensed native seed company upon approval by the restoration ecologist. All seed would be mixed and planted by hand and would be raked to a soil depth of one-quarter inch. Although construction activities would result in impacts on habitat within the channel, the habitat modifications from the revegetation plan would result in overall net benefits to the habitat and the proposed project's restoration design would reduce and/or eliminate net loss of habitat.

The proposed native revegetation plan would result in beneficial impacts through the implementation of BIO-3 described above.

- 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 Impact**—The County of San Diego has been providing nonmigratory mosquitofish as a method of vector treatment for several years; however, there are no migratory fish within the channel and the project does not propose improvements that could prevent fish from moving downstream. The proposed project area is not identified as a wildlife corridor within the Multiple Species Conservation Program. In the postproject condition, the area would function similar to the preproject condition in regard to wildlife movement. The proposed project improvements do not include features that would deter wildlife movement beyond existing conditions. No mitigation is required.

- e. *Conflict with any local policies/ordinance that protect biological resources (e.g. tree preservation policy or ordinance); or,*

**Less than Significant Impact with Mitigation Incorporated**—Willow trees occur scattered within the concrete and earthen channels of the proposed project area. Direct impacts on mature trees would result from channel clearing (vegetation removal); however channel clearing will also include the beneficial

removal of invasive eucalyptus. Potential temporary, indirect impacts on mature and/or protected trees may arise during project construction as a result of runoff and sedimentation, erosion, and fugitive dust. Runoff, sedimentation, and erosion can adversely affect plant populations by damaging individuals or by altering site conditions sufficiently to favor other species (native and exotic nonnatives) that would competitively displace native trees. Construction-generated fugitive dust can adversely affect plants by reducing the rates of metabolic processes such as photosynthesis and respiration. Potential permanent indirect impacts on mature and/or protected trees may occur during project operation. Erosion and stormwater contaminant runoff may degrade adjacent habitat.

Potential direct and indirect impacts on mature trees would be considered a significant impact. Because mature trees cannot be preserved on-site, impacts would be mitigated through the following mitigation measure to ensure that impacts of the proposed project on mature trees would be less than significant:

BIO-4: Tree replacement would be in accordance with the City's Tree Preservation and Grading Ordinance requirements for mature and any protected trees (Oaks). A detailed tree survey would be prepared as part of the revegetation plan to determine the number and type of mature and protected trees that would need to be replaced.

- 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.*

**No Impact.** The proposed project is consistent with the provisions of the Draft MHCP Escondido Subarea Plan, because the project area is located within the area defined by the plan as urban/developed land and is not considered a focused planning area. Although the MHCP Escondido Subarea Plan is currently in the draft phase, the project is consistent with the plan, and as a result it would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

### **2.1.3 Mitigation Measures for Biological Resources**

Impacts to biological resources will be mitigated to a level less than significant through the mitigation measures for biological resources listed below in Table 5.

## **2.2 CULTURAL RESOURCES**

This section briefly discusses the cultural resources within the city of Escondido. Specifically, this section provides a description of existing conditions, an outline of significance criteria, an analysis of the potential impacts of the project on eligible or significant cultural resources, and proposed mitigation measures for the protection of these resources.

### **2.2.1 Existing Conditions**

#### Cultural Setting

##### *San Diego Region*

The sequence of human occupation of coastal Southern California begins in the Paleoindian period (11,500–8500 years Before Present [B.P.]), a time when adaptations were formerly believed to have focused on the hunting of large game, but are now recognized to represent more generalized hunting and gathering, with considerable emphasis on marine resources (Erlandson and Colten 1991; Jones 1991). The following period, the Archaic (8500–1300 B.P.), is traditionally seen as encompassing both a coastal and an inland focus, with the coastal Archaic represented by the shell middens of the La Jolla complex

and the inland Archaic represented by the Pauma complex. The Late Prehistoric period (1300–200 B.P.) is marked by the appearance of small projectile points indicating the use of the bow and arrow, the common use of ceramics, and the replacement of inhumations with cremations.

During the Spanish period (1769–1821), the San Diego region was subject to exploration and the establishment of permanent Spanish settlements. The San Diego Presidio and the missions at San Diego and San Luis Rey were built and occupied during this period. Water has always been an important resource in the semiarid San Diego region, and water projects began in the Spanish period with the construction of Padre (Mission) Dam and its appurtenant 6-mile flume. Agriculture and livestock grazing formed the basis of the economy. Aboriginal lifeways were increasingly modified as more and more of the local natives came under the influence of the missions.

Many Spanish practices survived into the early part of the Mexican period (1821–1848). The secularization of the missions in 1834 brought notable changes to land ownership in the region. Large tracts of land were granted to families and individuals. Cattle ranching was a major economic focus.

The American period (1848–present) began when Mexico ceded California to the United States as part of the Treaty of Guadalupe Hidalgo. Some of the previous land claims were validated, but much of the land that was once part of the ranchos became available for settlement. Population movement into California was an outgrowth of several events: the discovery of gold, the conclusion of the Civil War, the passage of the Homestead Act, the construction of connecting railways, and World Wars I and II.

#### *Proposed Project Area*

After the arrival of Spanish explorers, the area that is now Escondido became part of the Spanish mission system. In 1843, the area was part of a rancho (El Rincon del Diablo) granted to Juan Bautista Alvarado, and in 1860, it was acquired by the Wolfskill brothers, who planted vineyards and raised sheep (McGrew 1988). In 1883, much of the area was purchased by the Escondido Company, a group of Stockton speculators that subdivided the property 3 years later. In 1886, a 12,000-acre tract was purchased by a group of investors that formed the Escondido Land and Town Company, which platted the city of Escondido and lobbied for construction of a railroad connection to the coast. Aggressive land promotions during the latter half of the 1880s drew many people to the area, and although growth had slowed considerably during the 1890s, settlers continued to arrive in the back country, establishing small farms and ranches throughout the area. This migration declined sharply with the onset of the Great Depression during the 1930s, as many of the rural farmers abandoned their farms and moved to urban areas. The number of people living on farms fell 63% during the 1930s, while San Diego County's overall population increased by 38% (Van Wormer and Walters 1991). Nevertheless, farming and ranching continued to be the major focus of Escondido's economy until the 1960s.

#### Cultural Resources within the Proposed Project Area

Over the last decade, AECOM has conducted several cultural resources investigations near the proposed project area. These investigations consisted of records searches, field surveys, and test excavations, the results of which reveal that the city of Escondido contains both historical and archaeological resources.

Proposed activities taking place in the proposed project area would involve primarily removing silt and vegetation from the open concrete-lined ditch, underground culvert, earth-lined channel, inlets, and outlets. In most cases, this removal would be done with mechanized equipment (e.g., excavator or backhoe). In some locations, work may be restricted to the use of hand tools (mechanical and manual). The proposed work between South Spruce Street and West 3rd Avenue and in the underground culvert on Spruce Street between West Grand Avenue and West 2nd Avenue would occur within concrete-lined

or encased areas and removal of silt and vegetation would not cause ground disturbance; therefore, no significant impacts on historic resources are expected. In the remaining portion of the proposed project area, between West Grand Avenue and West Valley Parkway, proposed work would occur within an earth-lined channel where mechanical dredging and cleaning are expected to cause ground disturbance averaging 1 foot deep. Additionally, work proposed for the sediment trap option and proposed culvert improvements between West Valley Parkway and Escondido Creek has the potential to disturb previously undisturbed soils. Work at these locations has the potential to cause impacts on significant historic resources.

#### *Records Search*

A cultural resources records search of the proposed project area was conducted on July 19, 2015, by the South Coastal Information Center (SCIC). A total of 58 previous investigations have been conducted within a 1-mile radius of the proposed project area. Of these, 31 are survey investigations, five are evaluation/assessment studies, three are environmental impact reports, 10 are historical resources studies, one is a data recovery effort, three are testing reports, and five are monitoring reports. Two investigations overlap with the proposed project area and consist of survey investigations. Ten cultural resources have been previously recorded within a 1-mile radius of the proposed project area: three bedrock milling stations, one historic artifact scatter, two historic trash dumps, one multi-component site, one isolate (a flake and a mano fragment), and two prehistoric resources that have no description. The isolated flake and mano fragment are located within 200 feet of the proposed project area.

#### *Field Survey*

AECOM conducted a pedestrian survey on July 27, 2015, to identify cultural resources in the proposed project area. The area was very disturbed and overgrown with vegetation, and much of it was inaccessible. Field efforts did not identify any surface evidence of the archaeological sites within the proposed project area. However, the site is part of "Line N" and "Line I" of the larger storm drainage system designed by the City of Escondido in 1960 and constructed thereafter. The section of the storm drainage system that is located within part of the proposed project area was recorded in the field and site forms will be submitted to the SCIC.

#### *City of Escondido Storm Drainage System (1960)*

San Diego County, including Escondido, received a large influx of new residents after World War II. The population of Escondido was 6,544 in 1950; by 1960, the city's population had more than doubled to 16,377 residents, with growth projected to continue unabated in the near future. In response to this growth, the City began several public improvements, including the development of a citywide stormwater drainage system. The portion of the storm drainage system that includes the proposed project area was designed in 1960. The new system, designed by the local firm Sholders, Tanner, Marquardt and Associates, Inc., would include a number of concrete pipelines, concrete-lined channels, underground concrete culverts, and earth-lined channels. The system was bounded by West 13th Street on the south, South Broadway on the east, Escondido Creek on the north, and South Upas Street on the west.

The City of Escondido Storm Drainage System (1960) is of a ubiquitous design for its time and such systems are still being used and built in California. The resource is not associated with significant events in history or with important persons in history. The design is common throughout the region, state, and country and does not possess distinctive characteristics or possess high artistic values. The resource does not have the potential to yield information important to the history of the local area, state, or nation, and the recording of the resource has exhausted its research potential.

Although the proposed project area is largely previously disturbed, ground disturbance associated with the project activities would include work in previously undisturbed soils in an earth-lined channel between West Grand Avenue and West Valley Parkway that may have the potential to contain archaeological resources, and monitoring would be required for all ground-disturbing activities proposed in previously undisturbed soils. Due to the possibility of silt and soil build up from drainage, the professional Archaeological Monitor may determine that there is no potential for archaeological resources within the proposed disturbance area and monitoring may be terminated after in-field observation. Monitoring requirements and protocols in the event of an inadvertent discovery are outlined in CR-1.

### *Tribal Cultural Resources*

As part of the cultural resources evaluation conducted by AECOM, a Sacred Lands File Request was sent to the Native American Heritage Commission (NAHC) on July 19, 2015 for the Project area and a one-mile radius. The letter requested information concerning any tribal cultural resources or concerns within the search area. A follow up email was sent on September 30, 2015. A response from NAHC was received on October 2, 2015 which identified a potential for Native American cultural resources to be impacted during project activities and included a Native American Contact List as an additional source of information. On October 16, 2015 the City's consultant (AECOM) reached out to all tribes included in the Native American Contact List via a hand mailed letter informing the tribes of the proposed project. Each letter included a figure of the proposed project area, as well as a response form. As of November 4<sup>th</sup>, two letters were received from the Pala Band of Mission Indians and the Rincon Band of Luiseño Indians. The Pala Band of Mission Indians indicated that the tribe does not have any objections to the continuation of the project activities as currently planned and to defer to the wishes of Tribes in closer proximity to the project area. A response was received from the Rincon Band of Luiseño Indians on October 23, 2015 indicating no concerns regarding known cultural resources within the area and no further consultation was deemed necessary.

In accordance with California State Assembly Bill AB 52, the City initiated government to government consultation with the three tribes that requested formal notification, Rincon Band of Luiseno Indians, the San Luis Rey Band of Mission Indians and the Soboba Band of Luiseno Indians through written notification of the proposed project activities. As required under AB 52, letters were sent to the tribes on August 18, 2015. A response was not received from the Rincon Band of Luiseno Indians. A response was received from the Soboba Band of Luiseno Indians on September 14, 2015 indicating no concerns regarding known cultural resources within the area and deferring responsibility to the Pauma Band of Luiseño Indians and the Rincon Band of Luiseno Indians. City staff met with the San Luis Rey Band of Mission Indians and received from them a determination that no avoidance or mitigation measures for tribal cultural resources were necessary. Consultation has been concluded in accordance with AB 52 and no Tribal Cultural monitoring is required. For further information regarding correspondence to the tribes please refer to Appendix C (Tribal Correspondence).

## **2.2.2 Significance Criteria and Impact Analysis**

### *Significance Criteria*

Under CEQA, the lead agency is responsible for determining whether a project may have a significant effect on historical and archaeological resources. Section 21083.2 of the Public Resources Code states that if the lead agency determines that the project may have a significant effect on "unique" archaeological resources, an environmental impact report shall address these resources. A unique

archaeological resource is an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one of the following criteria:

1. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
2. Associated with the lives of persons important to local, California, or national history.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values.
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

*The effects of a project on cultural resources are considered to be significant if the proposed project would:*

- a. *Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5;*

**Less than Significant Impact with Mitigation Incorporated**—No potentially significant cultural resources or tribal cultural resources are located within the proposed project area. Even though some portions of the site were not able to be thoroughly surveyed because of access issues or poor visibility from dense vegetation, the likelihood for potential resources to be present in the proposed project area is low due to the previously-developed nature of the project site and surrounding area, and the nature of the current silt and other debris deposited from the upstream drainage. However, appropriate mitigation is in place (Mitigation Measures CR-1, CR-2, and/or CR-3 (see Table 6, Section 2.2.3) should unanticipated historical resources be discovered.

- b. *Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5;*

**Less than Significant Impact with Mitigation Incorporated**—No potentially significant cultural resources or tribal cultural resources are located within the proposed project area. Even though some portions of the site were not able to be thoroughly surveyed because of access issues or poor visibility from dense vegetation, the likelihood for potential resources to be present in the proposed project area is low due to the previously-developed nature of the project site and surrounding area, and the nature of the current silt and other debris deposited from the upstream drainage. However, appropriate mitigation is in place (Mitigation Measures CR-1, CR-2, and/or CR-3 (see Table 6, Section 2.2.3) should unanticipated archaeological resources be discovered.

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

**Less than Significant Impact with Mitigation Incorporated**—The SCIC records search and field survey of the proposed project area indicated that no human remains are present in the area. As such, there would be no impact on known human remains. In the event of an inadvertent discovery of human remains, Mitigation Measure CR-4 shall be followed.

### **2.2.3 Mitigation Measures for Cultural Resources**

Impacts to cultural resources will be mitigated to a level less than significant through the mitigation measures for cultural resources listed below in Table 6.

**Table 6: Mitigation Measures for Cultural Resources**

Measure	Description
<b>Mitigation</b>	
<b>Cultural Resources</b>	
<p>CR-1 <b>Avoidance of Archaeological Resources</b></p>	<p>If an unanticipated archaeological resource is discovered the contractor shall temporarily divert construction activities in the area of cultural resource and immediately notify the resident engineer, as appropriate, and the PI (Principle Investigator) (unless Monitor is the PI).</p> <p>The PI shall immediately notify appropriate City staff by phone of the incident, and shall also submit written documentation to City staff within 24 hours by fax or email with photos of the resource in context. The PI will assess the potential significance of the find and report to City staff. If feasible the unanticipated archaeological will be avoided. If an unanticipated discovery is significant and cannot be avoided see CR-2 below.</p>
<p>CR-2 <b>Testing of Archaeological Resources</b></p>	<p>If an unanticipated archaeological discovery is potentially significant and cannot be avoided, an evaluation plan that identifies research topics and procedures for evaluation of the resource will be prepared. The evaluation plan will be a stand-alone document and will be implemented prior to ground-disturbing maintenance activities.</p>
<p>CR-3 <b>Data Recovery of Archaeological Resources</b></p>	<p>If an unanticipated archaeological discovery is significant and cannot be avoided, a treatment plan will outline the procedures for conducting data recovery. The treatment plan will be a stand-alone document and will be implemented prior to any additional ground-disturbing maintenance activities.</p>
<p>CR-4 <b>Treatment of Human Remains</b></p>	<p>If human remains are inadvertently discovered, they shall be treated according to appropriate state regulations (Public Resources Code Sections 5097.98, 5097.99, 5097.991, 7050.5, and 8010–8011 and Assembly Bill 2641); or on federal land Native American Graves Protection and Repatriation Act provisions, as outlined in the monitoring and discovery plan.</p>

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### **SECTION 3.0: MANDATORY FINDINGS OF SIGNIFICANCE**

Potential impacts of the proposed project on the environment are in the areas of Biological Resources and Cultural Resources. With implementation of the mitigation measures and conditions of approval, the proposed project is not expected to have any significant impacts. The project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, or cause the fish or wildlife population to drop below self-sustaining levels. The project would not threaten to eliminate a plant or animal community or substantially reduce the number or restrict the range of a rare or endangered plant or animal. The project would not eliminate important examples of the major periods of California history or prehistory. The project would not materially degrade levels of service of the adjacent streets, intersections, or utilities. The project would not have impacts that are cumulatively considerable, and would not have effects that would cause substantial adverse effects on human beings, either directly or indirectly. Therefore, in staff's opinion, the proposed project would not have a significant individual or cumulative impact on the environment.

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## SECTION 4.0: SUMMARY OF AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

Appropriate avoidance, minimization, and mitigation measures for the various resource areas are described in the project description, individual resource area sections of this document, and Table 7.

**Table 7: Summary of Avoidance, Minimization, and Compensatory Mitigation Measures**

<b>Biological Resources</b>	
<i>Biological Resources General Avoidance and Minimization</i>	
<b>Migratory and Nesting Bird Avoidance and Minimization</b>	
<b>BIO-1 Nesting Season Avoidance</b>	Vegetation clearing shall occur outside of the typical breeding season for raptors and migratory birds (February 15 through September 15). However, if this is not possible, then a qualified biologist will conduct a raptor nesting survey prior to construction to determine the presence or absence of nests in the riparian habitat, and the potential need for additional project mitigation measures.
<b>BIO-2 Nest Buffers</b>	<p>To the greatest extent feasible, vegetation clearing, dredging, and other mechanized activities within 500 feet of undeveloped vegetation communities will be conducted outside the breeding season for federally protected migratory and listed bird species. In situations where these types of maintenance activities will occur adjacent to undeveloped vegetation communities during the breeding season (February 15 through September 15), the following measures will be implemented:</p> <ol style="list-style-type: none"> <li>1. A preconstruction survey for migratory birds shall be performed by a qualified biologist within 3 days prior to any removal of trees, shrubs, or structures on the project site. If no active nests are found, then no further action will be warranted.</li> <li>2. If an active nest is detected on or within 300 feet of the project site (500 feet for raptors), no work shall be conducted within a 300-foot radius (500 feet for raptors) of the detected nest until a biological monitor determines the nest is no longer active.</li> </ol>
<b>Maintenance and Monitoring</b>	
<b>BIO-3 5-Year Maintenance and Monitoring Plan</b>	A revegetation and monitoring plan for 0.978 acre of instream freshwater marsh and 0.985 acre of terrace and upland habitats would be prepared by the City. The City plans to restore the habitat beyond its existing state through a comprehensive revegetation plan that would include the use of native species. The City would identify a qualified restoration ecologist that would be responsible for preparing the revegetation and monitoring plan. The revegetation and monitoring plan would incorporate an appropriate native species palette to blend in with the existing and surrounding habitats. Preference for habitat community restoration would be determined by the qualified restoration ecologist, and based on the existing and surrounding habitats. The plan would include details of site preparation and implementation, planting specifications, and 5-year maintenance and monitoring procedures. The plan would outline yearly success criteria and remedial measures should the mitigation effort fall short of the success criteria.
<b>Biological Resources</b>	
<b>BIO-4 Mature Tree Protection</b>	All tree replacement would be in accordance with the City's Tree Preservation and Grading Ordinance requirements for mature and any protected trees (Oaks). It is anticipated that any mature and any protected trees (Oaks) would be planted on-site or within adjacent City owned property.
<b>Cultural Resources</b>	
<i>Cultural Resources General Avoidance and Minimization</i>	
<b>CR-1 Avoidance of Archaeological Resources</b>	<p>If an unanticipated archaeological resource is discovered the contractor shall temporarily divert construction activities in the area of cultural resource and immediately notify the resident engineer, as appropriate, and the PI (unless Monitor is the PI).</p> <p>The PI shall immediately notify appropriate City staff by phone of the incident, and shall also submit written documentation to City staff within 24 hours by fax or email with photos of the resource in context. The PI will assess the potential significance of the find and report to City staff. If feasible the unanticipated archaeological will be avoided. If an unanticipated discovery is significant and cannot be avoided see CR-2 below.</p>

<p>CR-2 <b>Testing of Archaeological Resources</b></p>	<p>If an unanticipated archaeological discovery is potentially significant and cannot be avoided, an evaluation plan that identifies research topics and procedures for evaluation of the resource will be prepared. The evaluation plan will be a stand-alone document and will be implemented prior to ground-disturbing maintenance activities.</p>
<p>CR-3 <b>Data Recovery of Archaeological Resources</b></p>	<p>If an unanticipated archaeological discovery is significant and cannot be avoided, a treatment plan will outline the procedures for conducting data recovery. The treatment plan will be a stand-alone document and will be implemented prior to any additional ground-disturbing maintenance activities.</p>
<p>CR-4 <b>Treatment of Human Remains</b></p>	<p>If human remains are inadvertently discovered, they shall be treated according to appropriate state regulations(Public Resources Code Sections 5097.98, 5097.99, 5097.991, 7050.5, and 8010–8011 and Assembly Bill 2641); or on federal land Native American Graves Protection and Repatriation Act provisions, as outlined in the monitoring and discovery plan.</p>

## SECTION 5.0: REFERENCES

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U.S. Natural Resources Conservation Service (NRCS)

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## **APPENDIX A**

### **CEQA ENVIRONMENTAL CHECKLIST**



## ENVIRONMENTAL CHECKLIST FORM

1. Project title: *Spruce Street Drainage Improvements*
2. Lead agency name and address: *City of Escondido, 201 N. Broadway, Escondido, CA 92025-2798*
3. Contact persons and phone numbers:  
*Helen Davies, (760) 839-6315*
4. Project location: *City of Escondido, San Diego County, CA*
5. Project sponsor's name and address:  
*City of Escondido  
201 N. Broadway  
Escondido, CA 92025-2798*
6. General plan designation: *General Industrial (GI) and Downtown Specific Plan Area #9*
7. Zoning: *General Industrial (M-2) and Specific Plan (SP)*
8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)  
*Please see above.*
9. Surrounding land uses and setting: Briefly describe the project's surroundings:  
*Please see above.*
10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

*U.S. Army Corps of Engineers—Individual or Nationwide Permit  
San Diego Regional Water Quality Control Board—Water Quality Certification  
California Department of Fish and Wildlife—Streambed Alteration Agreement*

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

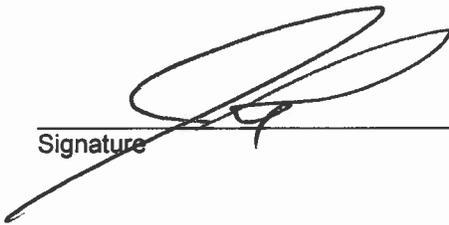
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- |                                                          |                                                             |                                                                        |
|----------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------|
| <input type="checkbox"/> Aesthetics                      | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality                                   |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources      | <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/Traffic          | <input type="checkbox"/> Utilities / Service Systems        | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

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

On the basis of this initial evaluation:

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

  
\_\_\_\_\_  
Signature

12-24-15  
\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## EVALUATION OF ENVIRONMENTAL IMPACTS:

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>I. AESTHETICS.</b> Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>The project would not construct structures or modify the existing land form in a way that would cause an adverse effect on a scenic vista, and the project does not propose activities that would damage scenic resources or degrade the existing visual character. The project includes ancillary aesthetic improvements to the area through pedestrian improvements and integrated community amenities including a sitting knoll and picnic area. The project would not significantly alter the developed character of the site or adversely affect any scenic views through and across the property.</i>				
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Less than Significant Impact.</b> <i>The project does not propose activities that would damage scenic resources or degrade the existing visual character. Because the project is not located along a scenic highway, it would not damage any significant scenic resources within a designated state scenic highway or create an aesthetically offensive site open to the public. The proposed project would include a visual change through the removal of invasive species and the replanting with drought-resistant vegetation via restoration management plan. Although included as part of the proposed project, the restoration plan has not yet been developed, but it proposes an increase in native vegetation and a landscape design that would include the revegetation of the entire earthen channel, as well as a vegetative screen along the proposed pedestrian pathway that would connect from the Escondido Sprinter Station to Grand Avenue. Although the proposed project includes vegetation removal within the channels, it would not include substantial damage to scenic resources, and scenic resources are expected to be improved through the implementation of the proposed restoration plan. As a result, impacts would be less than significant and no mitigation is required.</i>				
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Less than Significant Impact.</b> <i>The proposed project would include the removal of existing vegetation. Although the proposed revegetation plan has not yet been developed, it would include replanting with native grasses, shrubs, and trees throughout the channel. In addition, the proposed project would replace the existing vacant parking lot with a sediment trapping basin that would have a picnic area, sitting knoll, and pedestrian walkway along its eastern side. Impacts on existing visual character would occur; however, the design features listed in the latter would improve the visual character and quality of the area.</i>				
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>The project would not create a new source of light or glare that would affect daytime or nighttime views of the area.</i>				

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Although no impacts are anticipated, compliance with the City of Escondido's (City's) Outdoor Lighting Ordinance would ensure that any impacts of the project related to light and glare would be less than significant.

**II. AGRICULTURE AND FORESTRY RESOURCES.** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

- |                                                                                                                                                                                                                                                |                          |                          |                          |                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

**No Impact.** The majority of the proposed project area is within urban and suburban areas, and the project does not involve changes to the existing environment that would result in conversion of farmland to a nonagricultural use.

- |                                                                                      |                          |                          |                          |                                     |
|--------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

**No Impact.** The majority of the proposed project area is within urban and suburban areas, and the project does not conflict with existing zoning for agricultural use or a Williamson Act contract.

- |                                                                                                                                                                                                                                                                                            |                          |                          |                          |                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

**No Impact.** The proposed project does not conflict with existing zoning for forest land and does not propose to rezone existing forest land or timberland.

- |                                                                                      |                          |                          |                          |                                     |
|--------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

**No Impact.** The project does not propose to convert forest land to a nonforest use and would not result in the loss of forest land.

- |                                                                                                                                                                                                              |                          |                          |                          |                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

**No Impact.** The proposed project does not involve any other

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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changes to the existing environment that would result in conversion of farmland to a nonagricultural use, or forest land to a non-forest use.

**III. AIR QUALITY.** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

- |                                                                                 |                          |                          |                                     |                          |
|---------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Less than Significant Impact.** Air quality plans describe air pollution control strategies to be implemented by a city, county, or regional air district. The primary purpose of an air quality plan is to bring an area that does not attain national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS) into compliance with those standards pursuant to the requirements of the Clean Air Act (CAA) and California CAA. NAAQS and CAAQS have been established for the following criteria pollutants: ozone, carbon monoxide (CO), sulfur dioxide, nitrogen dioxide, particulate matter less than 10 microns in diameter (PM<sub>10</sub>), particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>), and lead.

The proposed project area is located within the San Diego Air Basin. The State Implementation Plan includes strategies and tactics to be used to attain and maintain acceptable air quality in the county; this list of strategies is called the San Diego Regional Air Quality Strategy (RAQS). The RAQS was developed pursuant to California CAA requirements and identifies feasible emissions control measures to provide expeditious progress toward attaining the state ozone standard in San Diego County.

Projects that are consistent with the assumptions used in development of the air quality plan are considered to not conflict with or obstruct the attainment of the air quality levels identified in the plan. The contribution of construction equipment emissions forecasted in the RAQS emissions inventory is estimated for the region on an annual basis. The proposed project would not result in a substantial increase in employment and is not growth inducing. Moreover, as discussed in (b), emissions generated from the proposed project would not exceed City thresholds and, therefore, would not create or contribute substantially to existing or projected violations of the NAAQS or CAAQS.

The proposed project would comply with all San Diego Air Pollution Control District rules and regulations and would not construct a land use that would result in a net increase in long-term operational emissions. For these reasons, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. The impact would be less than significant and no mitigation is required.

- |                                                                                                                    |                          |                          |                                     |                          |
|--------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Less than Significant Impact.** Construction emissions are considered short term and temporary, but they have the potential to represent a significant impact with respect to air quality.

**Potentially Significant Impact**     
 **Less Than Significant with Mitigation Incorporated**     
 **Less Than Significant Impact**     
 **No Impact**

Construction of the proposed project would temporarily generate emissions of volatile organic compounds (VOCs) and oxides of nitrogen (NO<sub>x</sub>), CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. Emissions of VOCs and NO<sub>x</sub> are generated primarily by on-road mobile sources (i.e., delivery vehicles, construction worker vehicles) and off-road construction equipment. The level of emissions generated varies as a function of vehicle trips per day for worker commute trips; the types and number of heavy-duty, off-road equipment used; and the intensity and frequency of their operation. Fugitive PM dust emissions are associated primarily with site preparation and vary as a function of such parameters as soil silt content, soil moisture, wind speed, acreage of disturbance area, and vehicle miles traveled by construction vehicles on- and off-site.

Construction of the proposed project is expected to begin in May 2016 and would be completed within 3 to 4 months. Construction-related emissions were modeled using the California Emissions Estimator Model (CalEEMod), Version 2013.2.2. CalEEMod allows the user to enter project-specific construction information, such as types, number, and horsepower of construction equipment, and number and length of off-site motor vehicle trips. Vehicle fleet characteristics and data specific to San Diego County or specific to the project were used in place of CalEEMod defaults, where available.

As shown in Table 1, construction emissions for the proposed project would result in maximum daily emissions of approximately 2 pounds of VOCs, 16 pounds of NO<sub>x</sub>, 11 pounds of CO, 7 pounds of PM<sub>10</sub>, and 4 pounds of PM<sub>2.5</sub>. Additional modeling assumptions and details are provided in Appendix B.

**Table 1  
Estimated Maximum Daily Construction Emissions**

	VOCs	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Maximum Daily Construction Emissions (lb/day)	1.57	16.36	11.30	6.54	3.66
City of Escondido Threshold of Significance (lb/day)	75	250	550	100	55
Significant Impact?	No	No	No	No	No

CO = carbon monoxide; lb/day = pounds per day; PM<sub>10</sub> = suspended particulate matter; PM<sub>2.5</sub> = fine particulate matter; NO<sub>x</sub> = oxides of nitrogen; VOCs = volatile organic compounds

Source: Estimated by AECOM in 2015

As shown in Table 1, construction-generated emissions of VOCs, NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> would not exceed applicable daily thresholds established by the City of Escondido. The proposed project would not involve a change to existing operational activities. Regular maintenance and inspection activities would not increase beyond existing conditions. For these reasons, the proposed project would not result in a violation of any air quality standard or contribute substantially to an existing or projected air quality violation. The impact would be less than significant and no mitigation is necessary.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Less than Significant Impact.** *The cumulative analysis focuses on whether a specific project would result in a cumulatively considerable increase in emissions. By its very nature, air pollution is largely a cumulative impact. A project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects. The thresholds of significance are relevant to whether a project's individual emissions would result in a cumulatively considerable incremental contribution to the existing cumulative air quality conditions.*

*As discussed in (b) above, the proposed project would generate emissions of criteria air pollutants, but at levels that do not exceed any of the City thresholds. Projects that would not exceed the thresholds of significance would be considered not to contribute a considerable amount of criteria air pollutant emissions to the region's emission profile and not impede attainment and maintenance of ambient air quality standards. Accordingly, the proposed project's construction and operational emissions would not result in a cumulatively considerable contribution to the region's air quality. Therefore, the impact would be less than significant and no mitigation is necessary.*

d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
------------------------------------------------------------------------	--------------------------	--------------------------	-------------------------------------	--------------------------

**Less than Significant Impact.** *Some members of the population are especially sensitive to emissions of air pollutants and should be given special consideration during the evaluation of a project's air quality impacts. These people include children, older adults, persons with preexisting respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Sensitive receptors include residences, schools, playgrounds, child care centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The proposed project area is located in a primarily commercial area. However, the nearest sensitive receptor is a single-family residence located approximately 100 feet southwest of the site.*

*The greatest potential for toxic air contaminant (TAC) emissions would be related to diesel PM emissions associated with activity by heavy-duty construction equipment. According to the California Air Resources Board, most of the estimated local health risk from TACs is from diesel PM. The dose to which receptors are exposed is the primary factor used to determine health risk and is a function of the concentration and duration of exposure. According to the Office of Environmental Health Hazard Assessment, health risk assessments that determine the health risks associated with exposure of residential receptors to TAC emissions should be based on a 30-year exposure period (OEHHA 2015). However, health risk assessments should be limited to the period/duration of activities associated with the emissions activity. Construction*

	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
--	-----------------------------------------------	---------------------------------------------------------------------------	---------------------------------------------	----------------------

activities would likely occur at a location for days or weeks.

Because the proposed project would require only a few pieces of off-road equipment, and because that equipment would be used for a relatively short time period, construction activities would not be anticipated to expose sensitive receptors to substantial TAC concentrations. For these reasons, the proposed project would not result in a substantial adverse effect related to the exposure of sensitive receptors to substantial pollutant concentrations. This impact would be less than significant and no mitigation is required.

e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less than Significant Impact.** The occurrence and severity of odor impacts depend on numerous factors such as the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. Offensive odors rarely cause any physical harm, but they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies.

Sources that may emit odors during construction activities include exhaust from diesel construction equipment, which some individuals could consider offensive. Odors from these sources would be localized and generally confined to the immediate area surrounding the proposed project area. The proposed project would use typical construction techniques, and the odors from off-road equipment and on-road vehicles would be typical of most construction sites and temporary in nature. As a result, the proposed project would not create objectionable odors affecting a substantial number of people. This impact would be less than significant and no mitigation is required.

**IV. BIOLOGICAL RESOURCES.**

The existing vegetation within the earthen portions of the Spruce Street drainage system includes a substantial presence of nonnative species, as well as minimal native vegetation. Most of the existing vegetation occurs within earthen portions of the channel and channel banks, although some vegetation is temporarily established in the concrete-lined sections of the channel where sediment accumulates. Currently, the predominant habitat within the channel and lower channel banks is freshwater marsh, which includes the native species of southern cattail and American tule, but also nonnatives such as Mexican fan palm, broadleaf annuals, and grasses. The channel zone also includes some nonvegetated areas and open water. The higher channel banks and other upland areas within the site include disturbed habitat and urban/developed areas and are dominated by nonnative species such as castor-bean, short-pod mustard, Russian thistle, periwinkle, hottentot-fig, and Mexican fan palm. Potential impacts on sensitive habitat communities and species known to occur on-site or with a moderate to high potential to occur on-site are discussed below.

A total of 0.97 acre of jurisdictional waters of the United States and state occurs within the project site. Of the 0.97 acre, 0.78 acre is within the earthen segment of the channel and is composed of 0.45 acre of waters of the United States in the form of coastal and valley freshwater marsh (0.41 acre), unvegetated channel (0.04

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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acre), and urban (<0.01 acre); and 0.33 acre of waters of the state under the exclusive purview of the California Department of Fish and Wildlife (CDFW) in the form of eucalyptus woodland (0.09 acre) and disturbed habitat (0.24 acre). The additional 0.19 acre within the concrete-lined channel segment is waters of the United States in the form of coastal and valley freshwater marsh (0.05 acre), southern willow scrub (0.01 acre), and open water (0.12 acre); and less than 0.01 acre of waters of the state under the exclusive purview of CDFW in the form of eucalyptus woodland (<0.01 acre). See Section 1.0, "Project Description," of the Mitigated Negative Declaration (MND) for further information regarding biological resources and waters of the United States and state that occur within the proposed project area and that have the potential to be affected by project activities.

Would the project:

- |                                                                                                                                                                                                                                                                                                                  |                          |                                     |                          |                          |
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| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|

**Less than Significant with Mitigation Incorporated.** The proposed project would affect a total of 0.97 acre of jurisdictional waters of the United States and state. Of the 0.97 acre, 0.78 acre is within the earthen segment of the channel and is composed of 0.45 acre of waters of the United States in the form of coastal and valley freshwater marsh (0.41 acre), unvegetated channel (0.04 acre), and urban (<0.01 acre); and 0.33 acre of waters of the state under the exclusive purview of CDFW in the form of eucalyptus woodland (0.09 acre) and disturbed habitat (0.24 acre). The additional 0.19 acre within the concrete-lined channel segment is waters of the United States in the form of coastal and valley freshwater marsh (0.05 acre), southern willow scrub (0.01 acre), and open water (0.12 acre); and less than 0.01 acre of waters of the state under the exclusive purview of CDFW in the form of eucalyptus woodland (<0.01 acre).

Although impacts on habitat within the channel would occur, the project proposes a revegetation plan that would result in revegetation of 0.978 acre in the instream freshwater marsh (0–4 feet) consisting of yerba mansa, San Diego sedge, Southwestern spiny rush, arrow reed, and arrowgrass, as well as revegetation of 0.989 acre of mid-terrace and upland areas of the channel (4 feet and above) that would also consist of an all-native seed mix. The restoration ecologist would confirm the upland planting areas before seeding. All seed would be collected within 5 miles of the site (or next closest location if unavailable) from a licensed native seed company upon approval by the restoration ecologist. All seed would be mixed and planted by hand and would be raked to a soil depth of one-quarter inch. Although construction activities would result in impacts on habitat within the channel, the habitat modifications from the revegetation plan would result in overall net benefits to the habitat and the proposed project's restoration design would reduce and/or eliminate net loss of habitat. As a result, the project may be considered self-mitigating and does not require compensatory mitigation, and the overall impact on

	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>Potentially Significant Impact</b>			

species and habitat is less than significant.

Historically the proposed project area provided habitat to a variety of currently threatened/endangered and special-status species, however in its existing condition, the only potential suitable habitat within the project area for a special-status species would be for the Western Red Bat (*Lasiurus blossevillii*) (SSC). As determined by a CNNDDB quadrangle search, field surveys and vegetation mapping the potential for this species to occur within the project area is low. Species were determined in the CNNDDB quad search, with the most recent record in 2003 approximately 8 miles away in native habitat, however there is a low potential for this species to occur within tall trees in urbanized areas. All potential impacts to the species would be minor and temporary in nature. As a result, mitigation for this special-status species is not required.

Although construction activities would result in impacts on habitat within the channel, the project proposes to replace a greater acreage of vegetation than what the proposed project would affect. Overall net benefits to the habitat through the proposed project's restoration design would result in no net loss of habitat. The proposed project would therefore be considered self-mitigating and does not require compensatory mitigation.

Because project activities would result in direct impacts on small migratory birds, including raptors (Cooper's hawk and red-shouldered hawk) that may breed and nest within the vicinity of the project site, mitigation is required. Mitigation would include but would not be limited to vegetation clearing outside of the breeding season (February 15–September 15) and surveys by a qualified biologist, which would result in impacts on migratory birds and raptors that would be less than significant. Further details regarding mitigation are provided in the MND.

- |                                                                                                                                                                                                                                                  |                          |                                     |                          |                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|
| 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 Game or US Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|

**Less than Significant with Mitigation Incorporated.** As discussed above, the proposed project would include permanent direct impacts on 0.41 acre of wetland (0.41 acre of coastal and valley freshwater marsh) in jurisdictional waters of the United States and state located in the earthen channel and 0.64 acre of wetland (0.05 acre of coastal and valley freshwater marsh and 0.01 acre of southern willow scrub), and 0.09 acre of riparian habitat (eucalyptus woodland) located in the earthen channel and <0.1 acre of riparian habitat (eucalyptus woodland) located in the concrete channel that is jurisdictional waters of the state; however, as discussed previously, the revegetation plan would result in a greater amount of native vegetation within the channel than what would be affected by the proposed project.

The areas of vegetation occurring within the concrete-lined channel are temporal resources. Although these resources may have minor positive effects because of a temporary increase in habitat, they also have negative effects on water quality. The negative effects caused by sediment buildup and vegetation within

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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concrete-lined channels include but are not limited to:

- reduction in flow, which allows water to heat (beneficial use is listed as warm/cold)—lower flows can result in algae growth and reduction of dissolved oxygen;
- wet-weather discharge of sediment and organic materials downstream to San Elijo Lagoon (the downstream receiving water), which is currently listed as a 303(d) water body that is impaired for sediment;
- increase in turbidity, total suspended solids, and total dissolved solids;
- increase in sediment-bound pollutants traveling downstream and into receiving waters;
- increase in total coliform (e.g., vegetation/organic materials decomposing in the water column); and
- increase in anthropogenic gross solids.

The project proposes channel stabilization to prevent further erosion and would incorporate a restoration design to reduce and/or eliminate no net loss of jurisdictional waters. Because (as discussed above) the proposed revegetation plan would result in benefits that are greater than the impacts, off-site compensatory mitigation would not be required. Although a native revegetation plan would result in beneficial impacts, it is unclear how the revegetation plan would be incorporated. As a result, incorporated mitigation is required and is suggested to be a 5-year maintenance and monitoring plan prepared by a qualified restoration ecologist. Further details regarding mitigation requirements are provided in the MND.

- |                                                                                                                                                                                                                                                                      |                          |                                     |                          |                          |
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| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|

**Less than Significant with Mitigation Incorporated.** Channel clearing (plant and sediment removal) and channel grading for the proposed project would result in permanent direct impacts on 0.41 acre of wetland in jurisdictional waters of the United States and state (0.41 acre of coastal and valley freshwater marsh) located in the earthen channel and 0.64 acre of wetland in jurisdictional waters of the state (0.05 acre of coastal and valley freshwater marsh and 0.01 acre of southern willow scrub) located in the concrete channel. As discussed previously, however, the proposed revegetation plan would result in revegetation of 0.978 acre of freshwater marsh. The areas of vegetation occurring within the concrete-lined channel are temporal resources. Although these resources may have minor positive effects because of a temporary increase in habitat, they also result in negative effects on water quality. The negative effects caused by sediment buildup and vegetation within concrete-lined channels include but are not limited to the following:

- reduction in flow, which allows water to heat (beneficial use is listed as warm/cold)—lower flows can result in algae growth

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

and reduction of dissolved oxygen;

- wet-weather discharge of sediment and organic materials downstream to San Elijo Lagoon (the downstream receiving water), which is currently listed as a 303(d) water body that is impaired for sediment;
- increase in turbidity, total suspended solids, and total dissolved solids;
- increase in sediment-bound pollutants traveling downstream and into receiving waters;
- increase in total coliform (e.g., vegetation/organic materials decomposing in the water column); and
- increase in anthropogenic gross solids.

The project proposes channel stabilization to prevent further erosion and would incorporate a restoration design to result in a no net loss of jurisdictional waters (i.e., using a bioengineered approach and revegetating the channel and banks with native wetland/riparian plant species). Table 2 lists the proposed native candidate restoration species to be included in the restoration plan.

**Table 2  
Candidate Restoration Species, Spruce Street  
Drainage Improvements**

Scientific Name	Common Name
<b>Instream (Freshwater Marsh) Palette</b>	
<i>Anemopsis californica</i>	Yerba mansa
<i>Carex spissa</i>	San Diego sedge
<i>Iva hayesiana</i>	San Diego marsh elder
<i>Juncus acutus</i> ssp. <i>leopoldii</i>	Southwestern spiny rush
<i>Pluchea sericea</i>	Arrow weed
<i>Triglochin concinna</i>	Arrowgrass
<b>Mid-terrace and Upland Palette</b>	
<i>Baccharis salicifolia</i>	Mule fat
<i>Juncus acutus</i> ssp. <i>leopoldii</i>	Southwestern spiny rush
<i>Encelia californica</i>	California bush sunflower
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>Pluchea sericea</i>	Arrow weed
<i>Rosa californica</i>	California rose
<i>Platanus racemosa</i>	Western sycamore
<i>Populus fremontii</i>	Fremont cottonwood
<i>Salix gooddingii</i>	Black willow
<i>Sambucus mexicana</i>	Blue elderberry
<i>Artemisia californica</i>	California sagebrush
<i>Hymenoclea monogyra</i>	Leafy burrowbush
<i>Isomeris arborea</i>	Bladderpod
<i>Nassella pulchra</i>	Purple needlegrass
<i>Simmondsia chinensis</i>	Jojoba

Therefore, the project may be considered self-mitigating and would not require compensatory mitigation. Because the project proposes a revegetation plan with native species resulting in beneficial impacts that would outweigh the negative effects of the

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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existing conditions discussed above, off-site compensatory mitigation would not be required. Although a native revegetation plan would result in beneficial impacts, it is unclear how the revegetation plan would be incorporated. As a result, incorporated mitigation is required and is suggested to be a 5-year restoration maintenance and monitoring plan prepared by a qualified restoration ecologist. Further details regarding mitigation requirements are provided in the MND.

- |                                                                                                                                                                                                                                    |                          |                                     |                          |                          |
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| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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**Less than Significant with Mitigation Incorporated.** The County of San Diego has been providing nonmigratory mosquitofish as a method of vector treatment for several years; however, there are no migratory fish within the channel and the project does not propose improvements that could prevent fish from moving downstream. The proposed project is not identified as a wildlife corridor within the Multiple Species Conservation Program. In the postproject condition, the area would function similar to the preproject condition in regard to wildlife movement. The proposed project improvements do not include features that would deter wildlife movement beyond existing conditions.

- |                                                                                                                                     |                          |                                     |                          |                          |
|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|

**Less than Significant with Mitigation Incorporated.** Willow trees occur scattered within the concrete and earthen channels of the proposed project area. Direct impacts on mature trees would result from channel clearing (vegetation removal). Potential temporary, indirect impacts on mature and/or protected trees may arise during project construction as a result of runoff and sedimentation, erosion, and fugitive dust. Runoff, sedimentation, and erosion can adversely affect plant populations by damaging individuals or by altering site conditions sufficiently to favor other species (native and exotic nonnatives) that would competitively displace native trees. Construction-generated fugitive dust can adversely affect plants by reducing the rates of metabolic processes such as photosynthesis and respiration. Potential permanent indirect impacts on mature and/or protected trees may occur during project operation. Erosion and stormwater contaminant runoff may degrade adjacent habitat. Potential direct and indirect impacts on mature trees would be considered a significant impact. Because mature trees cannot be preserved on-site, then impacts would be mitigated as required under the City of Escondido Municipal Code (Chapter 33, Article 55) to ensure that impacts on mature trees would be less than significant.

- |                                                                                                                                                                                      |                          |                          |                          |                                     |
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| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

**No Impact.** The proposed project is consistent with the proposed provisions of the Draft Multiple Habitat Conservation Program

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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(MHCP) Escondido Subarea Plan, because the project area is located within the area defined as urban/developed land and it not considered a focused planning area. Although the MHCP Escondido Subarea Plan is currently in the draft phase, the proposed project is consistent with the plan, and as a result it would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan (NCCP), or other approved local, regional, or state habitat conservation plan.

**V. CULTURAL RESOURCES.** Would the project:

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|-------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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**Less than Significant Impact with Mitigation Incorporated—**  
*No potentially significant cultural resources are located within the proposed project area. Although no known cultural resources would be adversely affected by the proposed project, portions of the site were not adequately surveyed because of access issues or poor visibility from dense vegetation. Therefore, the potential exists for resources to be present in the proposed project area. Any adverse impacts on unknown archaeological resources would be mitigated to a less-than-significant level with the use of mitigation measures as discussed in detail in the MND. It is recommended that the mitigation measures include but not be limited to a monitoring and discovery plan.*

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| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|----------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|

**Less than Significant Impact with Mitigation Incorporated—**  
*No potentially significant cultural resources are located within the proposed project area. Although no known cultural resources would be adversely affected by the project, portions of the site were not adequately surveyed because of access issues or poor visibility from dense vegetation. Therefore, the potential exists for resources to be present in the proposed project area. Any adverse impacts on unknown archaeological resources would be mitigated to a less-than-significant level with the use of mitigation measures as discussed in detail in the MND. It is recommended that the mitigation measures include but not be limited to an archaeological monitor and Native American monitor on-site during ground disturbing activities.*

- |                                                                                                         |                          |                          |                                     |                          |
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| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Less than Significant Impact—**  
*No paleontological resources have been identified within the city of Escondido (Demere 2007) and the concrete-lined portion of the proposed project area does not have the potential for discovery of paleontological resources. The underlying formation of the proposed project area consists of Undivided Pliocene Nonmarine deposits. The underlying formation may have the potential for paleontological resources; however, the proposed project includes excavation at depths that are not expected to be significant enough to effect potential paleontological resources (e.g., less than 5 feet). As a result, impacts to paleontological resources would be less than significant*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>and no mitigation is required.</i>				
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Less than Significant Impact with Mitigation Incorporated—**  
*The South Coastal Information Center records search and field survey of the proposed project area indicated that no human remains are present in the area. As such, there would be no impact on known human remains. Any adverse impacts that may result in the event of an inadvertent discovery of human remains would be mitigated to a less-than-significant level with the use of mitigation measures as discussed in detail in the MND.*

**VI. GEOLOGY AND SOILS.** Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**No Impact.** *The project site is located within the city of Escondido, which is located within Seismic Zone 4; however, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, the proposed project area is not located near active faults. The closest known active faults are the Rose Canyon Fault and the Elsinore Fault. Because of the distance of the proposed project area from these faults, fault surface rupture is not likely at the site. In the event of a major earthquake on these faults, or other faults within the Southern California region, the site could be subjected to moderate to severe ground shaking. However, the site is not considered to possess a significantly greater seismic risk than that of the surrounding area in general. Furthermore, the proposed project does not involve the construction of structures that would subject people to risk from fault rupture.*

ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact.** *Please see response above, as strong seismic shaking would be the result of the rupture of an earthquake fault.*

iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact.** *Please see response above, as ground failure, including liquefaction, would be the result of the rupture of an earthquake fault.*

iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact.** *The proposed project includes minimal grading of the earthen channel slopes to increase channel depth to accommodate the 100-year flood event and to clear the accumulated sediment. The engineering design has considered soils susceptible to landslides and proposes the replanting of slopes with a variety of native species.*

b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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**No Impact.** The purpose of the proposed project is to increase flood control through various drainage improvement activities. In its existing condition, the channel experiences severe erosion along its banks, leading to sediment/siltation loading and the transport of pollutant-loaded sediment downstream to San Elijo Lagoon (a 303[d] impaired water body for sediment). Severe erosion along the eastern bank is also a hazard to the existing railroad system. The proposed project design includes features to reduce the existing erosion issues, including clearing the existing accumulated sediment and installing a sediment trapping basin in the existing vacant parking lot. The proposed project is required to comply with best management practices (BMPs) as required by the City's Stormwater Management Requirements and the National Pollutant Discharge Elimination System (NPDES) storm water pollution prevention plan (SWPPP). With implementation of these measures, the project would not result in substantial soil erosion or loss of topsoil.

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| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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**No Impact.** Potential geologic hazards such as tsunamis, seiches, liquefaction, or collapse should be considered to be negligible or nonexistent.

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| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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**No Impact.** Expansive soils contain minerals such as smectite clays that are capable of absorbing water. When these soils absorb water, they increase in volume. This change in volume can exert enough force on a building or other structure to cause damage. Expansive soils will also shrink when they dry out. This shrinkage can remove support from structures and result in damage when structures are not designed to withstand changing soil pressures. Fissures in the soil can also develop. These fissures can facilitate dispersion of water when a moist condition or runoff occurs. The proposed project area is located on Visalia sandy loam, 2 to 5% slopes, which has a low shrink-swell behavior. As a result, the site is not located on an expansive soil.

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| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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**No Impact.** The proposed project includes drainage improvement activities within existing channels. Activities include dredging and excavation work that would require dewatering to maintain the stability of the earthen channel slopes. Disposal of water produced in the dewatering operation would occur in accordance with applicable government regulations and all applicable water quality regulations (i.e., General Waste Discharge Requirements for Discharges from Groundwater Extraction and Similar Discharges to Surface Waters within the San Diego Region Except for San Diego Bay, Order R9-2008-0002). Dewatering activities would

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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require on-site tanks for collection and settling before off-site disposal at a predetermined landfill or the City's Corporate Yard for later reuse. The dewatering operation would occur within the existing vacant parking lot until the area is scheduled for construction into the proposed sediment trapping basin, at which point dewatering of dredged spoils would occur within the City's Corporate Yard. The use and addition of septic tanks and waste disposal systems would not be needed to dispose of wastewater from the project.

**VII. GREENHOUSE GAS EMISSIONS.** Would the project:

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|-----------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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**Less than Significant Impact.** Greenhouse gases (GHGs) are present in the atmosphere naturally, are released by natural sources, and are formed from secondary reactions taking place in the atmosphere. Natural sources of GHGs include the respiration of humans, animals, and plants; decomposition of organic matter; and evaporation from the oceans. Anthropogenic sources include the combustion of fossil fuels, waste treatment, and agricultural processes.

Construction-related GHG emissions would be generated by sources such as heavy-duty off-road equipment, trucks hauling materials to the project site, and worker commute vehicles. GHG emissions generated by the proposed project would consist primarily of carbon dioxide (CO<sub>2</sub>). While emissions of other GHGs, such as methane and nitrous oxide, are important with respect to global climate change, emission levels of other GHGs are less dependent on the emissions-generating activities associated with the proposed project than are levels of CO<sub>2</sub>.

Global warming potential (GWP) is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to CO<sub>2</sub>. The GWP of a GHG is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time (i.e., lifetime) that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO<sub>2</sub>, the most abundant GHG. GHGs with lower emissions rates than CO<sub>2</sub> may still contribute to climate change because they are more effective at absorbing outgoing infrared radiation than CO<sub>2</sub> (i.e., high GWP). The concept of CO<sub>2</sub>-equivalents (CO<sub>2</sub>e) is used to account for the different GWP potentials of GHGs to absorb infrared radiation.

The City has established a threshold of 2,500 metric tons (MT) CO<sub>2</sub>e per year as a project-level GHG significance threshold that would apply to land use development projects (City of Escondido 2013). The emissions level is considered a threshold above which a project would require "project-specific technical analysis to quantify and mitigate project emissions" (City of Escondido 2013).

GHG emissions associated with the proposed project were estimated using the same methodology discussed earlier under Section III, "Air Quality." The total emissions during construction of the proposed project were estimated at 31 MT CO<sub>2</sub>e per year. The

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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GHG emissions associated with the proposed project would be less than the threshold of 2,500 MT CO<sub>2</sub>e per year. Therefore, the proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. This impact would be less than significant and no mitigation is required.

- |                                                                                                                                  |                          |                          |                                     |                          |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Less than Significant Impact.** In 2013, the City developed the Escondido Climate Action Plan (E-CAP), which revised the 2005 inventory and developed emission estimates for 2010, 2020, and 2035. Pursuant to the state’s adopted Assembly Bill 32 GHG reduction target, Escondido has set a goal to reduce emissions back to 1990 levels by the year 2020. This target was calculated as a 15% decrease from 2005 levels, as recommended in the Assembly Bill 32 Scoping Plan. To reach the reduction target, the City would implement additional local reduction measures that encourage energy efficiency and renewable energy in buildings, transit-oriented planning, and water conservation, and increase waste diversion. After 2020, many of the E-CAP and statewide reduction measures would continue to reduce GHG emissions.

The E-CAP is an implementation tool of the City’s general plan to guide development in Escondido by focusing on attaining the various general plan goals and policies while also achieving GHG reduction goals. Measure R2-C1, “Construction Emissions Reductions,” includes optional measures for projects to reduce construction-related emissions. According to the City, projects that generate less than 2,500 MT CO<sub>2</sub>e would be considered to have a “less than significant GHG emissions impact” and would have a difficult time implementing the R2 measures (City of Escondido 2013). As discussed in (a), the annual emissions for the proposed project would not exceed the threshold of significance. As a result, the proposed project would be consistent with the goals of the E-CAP and implementation of Measure R2-C1 is not required. Therefore, the project would not conflict with any applicable plan, policy, or regulation for the purpose of reducing GHG emissions. This impact would be less than significant and no mitigation is required.

**VIII. HAZARDS AND HAZARDOUS MATERIALS.** Would the project:

- |                                                                                                                                         |                          |                          |                                     |                          |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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**Less than Significant Impact.** Waste materials generated from the project, including sediment spoils and removed vegetation, are expected to be nonhazardous. Regardless, the proposed project would be subject to federal, local, and state agency regulations for the handling of hazardous materials, including the use of BMPs in compliance with the City of Escondido’s Storm Water Management Requirements. The project’s compliance with these regulations would ensure that potential health and safety impacts associated with the exposure to hazardous materials would be

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>less than significant.</i>				
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>The proposed project would not result in the creation of any health hazards, nor would it involve a risk of an explosion or the release of hazardous substances. The project would not involve the use or storage of hazardous materials, beyond typical construction materials, that would result in reasonably foreseeable upset or accident conditions.</i>				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Less than Significant Impact.</b> <i>An existing school, Diego Valley Charter School, is located within one-quarter mile west of the proposed project area. Waste materials generated from the project, including sediment spoils and removed vegetation, are expected to be nonhazardous. Regardless, the proposed project would be subject to federal, local, and state agency regulations for the handling of hazardous materials, including the use of BMPs in compliance with the City of Escondido's Storm Water Management Requirements. The project's compliance with these regulations would ensure that potential health and safety impacts associated with the exposure to hazardous materials would be less than significant.</i>				
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>No significant odors, pools of liquid, significantly stained soils, indicators of underground storage tanks, pits, or ponds have been observed at the site. No evidence or indication of releases of petroleum hydrocarbons, heavy metals, hazardous chemicals, or other "recognized environmental conditions" have been revealed at the site in present or previous conditions. According to the California Department of Toxic Substances Control Hazardous Waste and Substances Site List (DTSC 2007), only one active hazardous waste and substances site is located in Escondido. This site is known as the Chatham Brothers Barrel Yard and is located at 2257 Bernardo Avenue, Escondido, California. This site is located approximately 1 mile from the closest structure/channel (H-07) and therefore would not create or contribute to a significant hazard to the public or environment.</i>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>The proposed project area is not located within 2 miles of a public airport or public-use airport and would not result</i>				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>in a safety hazard for people residing or working in the area.</i>				
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>The proposed project area is not located within the vicinity of a private airstrip and would not result in a safety hazard for people residing or working in the area.</i>				
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>The proposed project consists of drainage improvement activities, including channel clearing and water quality improvements, within existing channels. The proposed project would not include activities or structures that would impair the implementation of, or physically interfere with, an adopted emergency response plan or evacuation plan and is not expected to result in the need for additional emergency and fire facilities.</i>				
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>The proposed project area is located in an urban setting. Most project activities would occur within existing channels and an adjacent vacant parking lot. As a result, the proposed project would not expose people or structures to wildland fires. The project does not include activities that would increase the risk of fires and/or result in the need for additional emergency and fire facilities.</i>				
<b>IX. HYDROLOGY AND WATER QUALITY.</b> Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Less than Significant Impact.</b> <i>The proposed project has the potential to discharge pollutants to receiving waters through the implementation of various proposed drainage improvement activities. Potential pollutants include (1) sediment, siltation, and turbidity from ground-disturbing activities, vegetation removal, and/or dredging of channels (concrete- and earth-lined); (2) reentrainment of pollutants in accumulated sediment that are disturbed/removed; and (3) pollutants from heavy equipment, which may consist of oil and grease, heavy metals, and various petroleum products.</i>				
<i>The proposed project is required to implement BMPs to protect water quality in compliance with the City of Escondido's Stormwater Management Requirements and the NPDES SWPPP that will be developed for the project. With implementation of these measures, impacts on water quality from drainage improvement activities would be less than significant. Because of the nature of the accumulated sediment/vegetation that would be proposed for removal, hazardous pollutant levels within the sediment would not be expected.</i>				

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| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Less than Significant Impact.** *The proposed project would involve removing vegetation and/or sediment/silt from earth-lined and concrete-lined channels to improve flood control and vector control. The project includes the possibility of withdrawal of groundwater, if encountered during excavation work within the channels. Any groundwater encountered during excavation would be disposed of in accordance with applicable government regulations, in an environmentally safe manner, and in strict conformance with applicable water quality regulations (i.e., General Waste Discharge Requirements for Discharges from Groundwater Extraction and Similar Discharges to Surface Waters within the San Diego Region Except for San Diego Bay, Order R9-2008-0002).*

- |                                                                                                                                                                                                                                    |                          |                          |                                     |                          |
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| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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**Less than Significant Impact.** *The proposed project may include the short-term potential for an increase in erosion and sedimentation during construction activities. As discussed previously, however, the project's compliance with regulations mandating the preparation and implementation of a SWPPP would ensure that impacts associated with erosion and sedimentation would not be significant.*

*The proposed project design does not include permanent features that would alter the existing drainage pattern of the site or area in a manner that would result in substantial increase in the rate or amount of surface runoff. The proposed project would include beneficial improvements to existing erosion and siltation issues on-site and off-site, which would incorporate the construction of water quality improvement features throughout the channel, including a proposed sediment trapping basin that would reduce the transport of sediment downstream into Escondido Creek.*

- |                                                                                                                                                                                                                                                                           |                          |                          |                                     |                          |
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| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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**Less than Significant Impact.** *The proposed drainage improvement project would include alteration of the existing channels through grading and recontouring activities. The negative effects caused by sediment buildup and vegetation within concrete-lined channels include but are not limited to:*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p><i>reduction in flow, which allows water to heat (beneficial use is listed as warm/cold)—lower flows can result in algae growth and reduction of dissolved oxygen;</i></p> <ul style="list-style-type: none"> <li><i>wet-weather discharge of sediment and organic materials downstream to San Elijo Lagoon (the downstream receiving water), which is currently listed as a 303(d) water body that is impaired for sediment;</i></li> <li><i>increase in turbidity, total suspended solids, and total dissolved solids;</i></li> <li><i>increase in sediment-bound pollutants traveling downstream and into receiving waters;</i></li> <li><i>increase in total coliform (e.g., vegetation/organic materials decomposing in the water column); and</i></li> <li><i>increase in anthropogenic gross solids.</i></li> </ul> <p><i>Although grading and recontouring activities would result in the alteration of the existing channel, the alterations would be minor and would result in beneficial effects on the existing drainage pattern that would outweigh the negative effects caused by the existing conditions listed above. Impacts would be less than significant and no mitigation is required.</i></p>				
<p>e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?</p> <p><b>No Impact.</b> <i>The proposed project would serve to increase stormwater conveyance capacity within the limits of the original design. Proposed improvements would not create or contribute runoff water to existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>f) Otherwise substantially degrade water quality?</p> <p><b>No Impact.</b> <i>The proposed project design does not include activities that would otherwise substantially degrade water quality; however, as a preventative measure, and as discussed previously, the project's compliance with regulations mandating the preparation and implementation of a SWPPP would ensure that water quality would not be degraded.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?</p> <p><b>No Impact.</b> <i>The project does not propose to construct any housing within a flood hazard area.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?</p> <p><b>No Impact.</b> <i>The project does not propose to construct structures that would impede or redirect flows within a 100-year flood hazard area. The purpose of the proposed project is to improve the</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>existing drainage of the channels, resulting in improved flood control in the area.</i>				
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>The project does not propose to construct a levee or dam and would not otherwise expose people or structures to a significant risk of flooding. The purpose of the proposed project is to improve the existing drainage of the channels, resulting in improved flood control in the area.</i>				
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>The project does not propose activities that would increase the risk of inundation by seiche, tsunami, or mudflow.</i>				
<b>X. LAND USE AND PLANNING.</b> Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>The proposed project does not include the creation of any new land use barriers, or the construction of any new physical structures that would otherwise divide or disrupt the physical arrangement of the surrounding community. As an ancillary benefit to drainage improvements, the design of the proposed project includes features such as picnic areas and permeable walkways, which would improve the connectivity of the established community surrounding the area.</i>				
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>The proposed project activities would occur in existing channels and an adjacent vacant parking lot. The land use designations in the City's general plan define the proposed project area from West 3rd Avenue north to West Grand Avenue as General Industrial and from West Grand Avenue north to West Valley Creek as Downtown Specific Planning Area #9. The City has designed the project so that it would comply with the general plan's land use designations and with elements of its general open space/conservation plan, which have the potential to apply to the project. The project has been designed to comply with the NCCP. The Draft MHCP Escondido Subarea Plan defines the project location as "Developed and Disturbed Land," and therefore, located outside of the focused planning area. The project is intended to be self-mitigating and would provide overall benefits to the environment by reducing sediment load and sediment-bound pollutants to San Elijo Lagoon (currently listed as a 303[d] water body that is impaired for sediment). See Section 1.0, "Project Description," of the MND for further details regarding the overall benefits of the proposed project.</i>				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**No Impact.** Please see above. The proposed project would not conflict with any habitat conservation plan.

**XI. MINERAL RESOURCES.** Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact.** The proposed project consists of drainage improvement activities within an existing channel and a vacant parking lot. As a result, project activities would not change the existing availability of mineral resources that would be of value to the region and residents of the state.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact.** No known locally important mineral resource recovery site is located in or near the proposed project area.

**XII. NOISE.** Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less than Significant Impact.** The City Noise Ordinance is contained in Chapter 17, Article 12, Noise Abatement and Control, of the City Municipal Code (Code). General construction noise is governed by Section 17-234 of the Code, which limits construction operations to 7:00 a.m. through 6:00 p.m., Monday through Friday, and hours 9:00 a.m. through 5:00 p.m. on Saturdays, and prohibits construction on Sundays and City holidays. Noise generated by grading activities is governed by Section 17-238 of the Code, which limits grading operations to 7:00 a.m. to 6:00 p.m., Monday through Friday and prohibits grading on Saturdays, Sundays, and City holidays. A variance for grading may be issued by the City Manager to allow grading operations on Saturdays between 10:00 a.m. and 5:00 p.m., if it can be demonstrated that it would benefit the community. Both Section 17-234 and Section 17-238 of the Code limit noise generated by construction equipment to a maximum of 75 A-weighted decibels (dBA) for a 1-hour noise level equivalence ( $L_{eq}$ ) at the property line of any property developed for residential purposes, unless a variance is obtained from the City Manager (pursuant to Code Sections 17-249 through 17-257) (City of Escondido 2015).

Construction activities are typically carried out in phases with noise characteristics based on the mix and duration of operation of construction equipment in use at a given time. Earth-moving and impact activities typically generate the highest noise levels. Earth-moving typically involves the largest and heaviest equipment and may include excavators, dump trucks, front-end loaders, and graders. Impact equipment may include pavement breakers and industrial/concrete saws. Typical maximum noise levels from construction equipment would range from 70 to 90 dBA maximum

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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noise level (FTA 2006) at a distance of 50 feet from the noise source. Construction activities, with equipment moving from one point to another, work breaks, and idle time, have long-term noise averages that are lower than loud short-term noise events. For purposes of this analysis, a 1-hour average noise level of 75 dBA  $L_{eq}$  at a distance of 50 feet from the construction area is assumed to occur. Based on the project's developed urban area, the intervening ground surface is conservatively characterized as acoustically hard and noise levels would attenuate or drop off based on distance alone at a rate of -6 dBA per doubling of distance with no ground absorption of noise (i.e., 74 dBA  $L_{eq}$  at 100 feet). Thus, because most of the alignment is industrial/limited residential, construction-related noise levels are not anticipated to exceed the noise level limits of 75 dBA  $L_{eq}$  at a residential property line identified in Sections 17-234 and 17-238. The project does not contain operational components that would be subject to Section 17-229. Therefore, the proposed project would not result in noise levels in excess of standards established in the local general plan or noise ordinance, or other applicable standards. Impacts would be less than significant. No mitigation is required.

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| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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**Less than Significant Impact.** Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Project activities would generate groundborne vibration and potentially groundborne noise from the operation of heavy equipment (e.g., trucks) during construction activities. Potential vibration impacts would be structural damage and human annoyance, when near structures and humans. However, vibration levels from the proposed equipment, reported as the peak particle velocity in inches per second (PPV in/sec), would be 0.1 PPV in/sec or less at distances of 30 feet or more, which is well below the thresholds that would cause annoyance to people or damage structures. Therefore, less-than-significant vibration and groundborne noise impacts would be associated with the proposed project. Project activities would not establish any permanent vibration sources. Therefore, the project would not expose persons to or generation of excessive groundborne vibration and groundborne noise levels. Impacts would be less than significant. No mitigation is required.

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| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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**No Impact.** Project activities would not establish permanent noise sources and therefore would not generate a permanent increase in existing ambient noise levels. There would be no impact and no mitigation is required.

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| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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**Less than Significant Impact.** Project activities would generate temporary noise from the operation of equipment during construction activities, which may result in a substantial temporary

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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or periodic increase in existing ambient noise levels. However, the proposed project area is located in an urbanized area adjacent to roadway traffic, with the southeast section in an industrial portion of the alignment, where ambient levels are elevated. In addition, ambient noise level increases from project construction activities would occur during daytime hours, not affecting residential uses (i.e., sleeping activities), and typically would last for less than a few days in one area. Noise impacts would be reduced by City standard construction procedures and compliance with the City noise ordinance. Impacts would be less than significant. No mitigation is required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact.** The proposed project area is not located within an airport land use plan or within 2 miles of a public airport or public-use airport, and would not expose people residing or working in the area to excessive noise levels. There would be no impact and no mitigation is required.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact.** The proposed project area is not located near a private airstrip; thus, people residing or working in the project area would not be exposed to excessive noise levels as a result of airport operations. There would be no impact and no mitigation is required.

**XIII. POPULATION AND HOUSING.** Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact.** The population in the surrounding area and Escondido would not incrementally increase as a result of the proposed project. The proposed channel drainage improvement activities would not alter the location, distribution, or population density within the area, nor would it adversely impact the City's housing demand. The project does not propose to create or expand infrastructure that would induce population growth.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact.** The locations of structures requiring drainage improvement activities do not contain any existing housing or rental units that would be displaced. The proposed project would not add any units to the existing housing stock and would not create a demand for additional housing or necessitate the construction of housing elsewhere.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**No Impact.** The proposed project consists of drainage improvement activities in existing channels as well as a vacant parking lot. These activities would not displace any people or necessitate the construction of replacement housing.

**XIV. PUBLIC SERVICES.**

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:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact.** Escondido is currently served by seven fire stations, located throughout the city. The proposed project would not impact fire protection services and would not result in the need for expanded fire protection services.

ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact.** No impacts on police services are anticipated, and the proposed project would not result in the need for expanded police protection services.

iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact.** The proposed project would not result in additional elementary or high school students, and would not result in the need for construction of additional schools.

iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact.** As an ancillary benefit to the project, the proposed project design incorporates sustainable design features that would complement similar improvements currently occurring throughout the community. The proposed project's sustainable design features include integrated community amenities, such as a picnic area and a knoll area for sitting. The proposed project would not result in an incremental increase in the demand on the City's recreational facilities; however, it would require additional City maintenance crews. The site design includes a permanent access route onto the recreational grounds for City maintenance personnel.

v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Less than Significant Impact.** The project may require the relocation of an existing major utility pole located within the existing parking lot. Conversion of the parking lot to the proposed sediment trapping basin would require relocating the utility pole. It is expected that the relocation would occur on the east side of the basin and would align with the existing location.

The proposed project includes the removal of an existing east/west pedestrian bridge and its associated concrete pathway

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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located just north of West Valley Parkway to improve flood control in the channel. To continue east/west pedestrian access, the proposed project includes the placement of a sidewalk along the northern perimeter of West Valley Parkway where the existing sidewalk disconnects above the channel. The project also includes the construction of a permeable pedestrian pathway between West Grand Avenue and West Valley Parkway along the eastern edge of the proposed sediment trapping basin.

The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities or staff. The project would not result in a significant increase in demand on library services or the development of additional library spaces. The project would not affect any other public facilities in a manner that would result in the need for additional or expanded public facilities.

**XV. RECREATION.**

- |                                                                                                                                                                                                                |                          |                          |                          |                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

**No Impact.** The proposed project would not increase the use of existing neighborhood parks and regional parks or other recreational facilities. No impact on recreational resources is 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

**No Impact.** The proposed project does not include any recreational facilities or require the construction or expansion of recreational facilities. The project proposes to improve upon a vacant parking lot by constructing a sustainable streetscape. No impacts on recreational resources are expected.

**XVI. TRANSPORTATION/TRAFFIC.** Would the project:

- |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                          |                          |                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

**No Impact.** The proposed project would not conflict with adopted policies, plans, or programs related to the performance of the circulation system or supporting alternative transportation. The proposed project would not affect any proposed bus routes or stops or require the development of new or relocated bus stops. All work associated with public convenience, safety, traffic control, and detours would conform to Section 7-10, "Public Convenience and Safety," of the Standard Specifications for Public Works Construction. Any and all traffic control plans and/or devices would conform to the Manual on Uniform Traffic Control Devices, 2012 Edition, and the technical provisions for this project.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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- b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	-------------------------------------	--------------------------

**Less than Significant Impact.** Construction of the proposed project would disrupt current traffic operations in the project area as a result of heavy equipment operating within or adjacent to public streets. Construction activities are assumed to occur within an 8-hour shift per day (typical 8-hour construction schedule with 30-minute lunch: 7:00 a.m. to 3:30 p.m.).

During underground dredging and subsequent hauling, traffic would be affected by the arrival and departure of trucks hauling sediment. However, as the four new 36-inch manhole access points are constructed, traffic mobility and parking in the immediate construction area would be affected. Additional parking is available on the west side of South Spruce Street.

The proposed project also includes waste hauling around the immediate area to access the vacant parking lot on the northeast side of the short earthen channel. Depending on work location, the following routes are anticipated:

- West Valley Parkway to South Tulip Street to West Grand Avenue and into the southeast entrance of the vacant parking lot (solid line)
- West Valley Parkway to North Tulip Street with a U-turn onto West Grand Avenue and into the southeast entrance of the vacant parking lot (dashed-line alternative)

The amount of vegetation and sediment waste would need to be continually managed within the dewatering area in the vacant parking lot. It is expected that additional space would be required for waste staging. The unpaved portion of the City's Corporate Public Works Yard off of Washington Avenue is proposed for waste management. This lot is approximately 1 mile from the West Valley Parkway overcrossing of the project. If the Corporate Yard proves feasible, the haul route as depicted in Figure 2 would be anticipated:

The proposed project includes the employment of traffic-management measures at the upstream and downstream culvert openings; however, the designated contractor would be responsible for the development of traffic control plans by the Contractor's Civil or Traffic Engineer. Impacts on traffic would be temporary and short term. Although a traffic control plan has not yet been developed, it is proposed as part of the project and is expected to be in conformance with applicable City and state regulations. As a result, traffic impacts are expected to be less than significant and no mitigation is required.

- c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact.** The proposed project would not result in a change in air traffic patterns.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>The proposed project consists of activities in a storm drain channel, and does not propose any changes to existing design features or any incompatible uses.</i>				
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>Construction activities would adhere to requirements that allow for access for all emergency vehicles along roads. The Escondido Fire Department would be notified when access to any of the streets or intersections would be reduced.</i>				
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>The proposed project would not conflict with adopted policies, plans, or programs supporting alternative transportation.</i>				
<u>XVII. UTILITIES AND SERVICE SYSTEMS.</u> Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>The project would not discharge effluent that would exceed wastewater treatment requirements of the San Diego Regional Water Quality Control Board (RWQCB).</i>				
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>The proposed project includes improvements of existing flood control channels, as well as the construction of a new sediment trapping basin, and does not require construction of a new wastewater treatment facility or new stormwater facilities.</i>				
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>No Impact.</b> <i>The proposed project includes flood control improvement activities of existing flood control channels, as well as the construction of a new sediment trapping basin where a vacant parking lot currently exists. The sediment trapping basin would capture and reduce sediment contribution to Escondido Creek, and ultimately San Elijo Lagoon, which is currently listed on the Clean Water Act Section 303(d) list of impaired waters as being impaired for sediment. The project does not include the construction of new stormwater drainage facilities or expansion of existing facilities that would cause significant environmental effects.</i>				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**No Impact.** The proposed project does not require a permanent source of water supply and would not require additional water entitlements.

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------	--------------------------	--------------------------	-------------------------------------

**No impact.** The proposed project would not require wastewater treatment services or the expansion of a wastewater treatment facility.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
------------------------------------------------------------------------------------------------------------------------	--------------------------	--------------------------	--------------------------	-------------------------------------

**No Impact.** The proposed project includes the Sycamore Landfill and Otay Mesa Landfill as designated waste disposal sites. Each landfill has sufficient capacity for the project's estimated solid waste disposal needs. The City or contractor may also choose to recycle suitable dredged spoil material for land application, in accordance with the requirements of Conditional Waiver Number 8.1.A (RWQCB Resolution R9-2007-0104). Management of maintenance waste products removed from the project footprint would use the vacant parking lot or the City's Corporate Yard for temporary dewatering, recycling, and/or disposal. It is expected that the project's solid waste needs could be adequately served by the landfills or the combination of the landfills and recycled reuse by the City.

g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**No Impact.** All construction activities would comply with all federal, state, and local statutes and regulations related to solid waste. Construction personnel would dispose of solid waste in accordance with applicable solid waste regulations. Management of maintenance waste products removed from the project footprint would use the vacant parking lot or the City's Corporate Yard for temporary dewatering, recycling, and/or disposal. All soil (or sediment) designated for disposal to a permitted hazardous waste or specified waste facility or to a treatment/recycling facility would be sampled and analyzed in accordance with the receiving facilities requirements.

**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.**

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

	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
--	-----------------------------------------------	---------------------------------------------------------------------------	---------------------------------------------	----------------------

**Less than Significant Impact with Mitigation.** As indicated in the analysis above, the proposed project activities are located in an existing channel and an existing vacant parking lot. The proposed project has the potential to discharge pollutants to receiving waters through the implementation of various proposed drainage improvement activities; however, these impacts would be reduced to below a level of significance through the use of BMPs as required by the City's Stormwater Management Requirements and the NPDES SWPPP.

The proposed project includes drainage improvement activities that would result in beneficial effects on the existing condition of the channel and surrounding area that would outweigh the negative effects caused from the accumulation of sediment and vegetation within the channel. Although the overall benefits would be greater than the existing conditions, the proposed project does have the potential to reduce the quality of habitat for wildlife species, including migratory birds and raptors. These impacts would be less than significant with the incorporation of the mitigation measures discussed in the MND.

- |                                                                                                                                                                                                                                                                                                                                                |                          |                          |                          |                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

**No Impact.** The project would not have impacts that are cumulatively considerable, and would not have effects that would cause substantial adverse effects on human beings, either directly or indirectly.

- |                                                                                                                                             |                          |                          |                                     |                          |
|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Less than Significant Impact.** As discussed previously, the proposed project is not expected to encounter hazardous material; however, there is a possibility that hazardous levels of contaminants could be found. The project would be subject to federal, state, and local agency regulations for the handling of hazardous materials, including the use of BMPs in compliance with the City's Storm Water Management Requirements. The project's compliance with these regulations would ensure that potential health and safety impacts associated with the exposure to hazardous materials would be less than significant.

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

Revised 2009

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2007 *Technical Report Paleontological Resource Assessment, Citracado Parkway Extension, City of Escondido, San Diego County, California.* Report on file at the San Diego Natural History Museum, San Diego, CA.

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## **APPENDIX B**

### **AIR QUALITY MODELING DETAILS**



## Spruce Street San Diego Air Basin, Summer

### 1.0 Project Characteristics

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#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.60	User Defined Unit	1.60	70,000.00	0

#### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2016
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics -

Land Use - Acreage consistent with engineering report.

Construction Phase - Construction schedule consistent with the engineering report.

Off-road Equipment - Consistent with the engineering report.

Trips and VMT - Worker and haul trips consistent with engineering report. Assumes 2-mile roundtrip haul distance to the City's Corporate Public Works Yard.

Grading - Consistent with the engineering report.



tblOffRoadEquipment	PhaseName		Concrete Channel
tblOffRoadEquipment	PhaseName		Spruce Street
tblOffRoadEquipment	PhaseName		Short Channel
tblOffRoadEquipment	PhaseName		Main Channel
tblOffRoadEquipment	PhaseName		Spruce Street
tblOffRoadEquipment	PhaseName		Concrete Channel
tblProjectCharacteristics	OperationalYear	2014	2016
tblTripsAndVMT	HaulingTripLength	20.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	832.00
tblTripsAndVMT	HaulingTripNumber	0.00	32.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	HaulingTripNumber	0.00	62.00
tblTripsAndVMT	VendorTripNumber	11.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	6.00
tblTripsAndVMT	WorkerTripNumber	10.00	4.00
tblTripsAndVMT	WorkerTripNumber	13.00	6.00
tblTripsAndVMT	WorkerTripNumber	13.00	6.00
tblTripsAndVMT	WorkerTripNumber	29.00	4.00

## 2.0 Emissions Summary

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**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.9425	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.9425</b>	<b>0.0000</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>3.5000e-004</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.7000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.9425	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.9425</b>	<b>0.0000</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>3.5000e-004</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.7000e-004</b>

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

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Main Channel	Site Preparation	5/1/2016	7/1/2016	5	45	
2	Short Channel	Site Preparation	7/2/2016	7/6/2016	5	3	
3	Spruce Street	Site Preparation	7/7/2016	7/22/2016	5	12	
4	Concrete Channel	Site Preparation	7/23/2016	7/28/2016	5	4	
5	Dewatering Platform	Building Construction	7/29/2016	7/29/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Dewatering Platform	Cranes	1	6.00	226	0.29
Concrete Channel	Off-Highway Trucks	1	8.00	400	0.38
Spruce Street	Off-Highway Trucks	1	8.00	400	0.38
Short Channel	Skid Steer Loaders	1	8.00	64	0.37
Spruce Street	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Short Channel	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Concrete Channel	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Main Channel	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Main Channel	Skid Steer Loaders	1	8.00	64	0.37
Spruce Street	Skid Steer Loaders	1	8.00	64	0.37
Concrete Channel	Skid Steer Loaders	1	8.00	64	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Main Channel	4	6.00	0.00	832.00	10.80	7.30	2.00	LD_Mix	HDT_Mix	HHDT
Short Channel	4	4.00	0.00	32.00	10.80	7.30	2.00	LD_Mix	HDT_Mix	HHDT
Spruce Street	5	6.00	0.00	94.00	10.80	7.30	2.00	LD_Mix	HDT_Mix	HHDT
Concrete Channel	5	6.00	0.00	62.00	10.80	7.30	2.00	LD_Mix	HDT_Mix	HHDT
Dewatering Platform	7	4.00	0.00	0.00	10.80	7.30	2.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 Main Channel - 2016****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3278	0.0000	5.3278	2.9037	0.0000	2.9037			0.0000			0.0000
Off-Road	0.4547	4.7312	3.8024	5.1500e-003		0.3331	0.3331		0.3064	0.3064		535.1291	535.1291	0.1614		538.5188
<b>Total</b>	<b>0.4547</b>	<b>4.7312</b>	<b>3.8024</b>	<b>5.1500e-003</b>	<b>5.3278</b>	<b>0.3331</b>	<b>5.6609</b>	<b>2.9037</b>	<b>0.3064</b>	<b>3.2101</b>		<b>535.1291</b>	<b>535.1291</b>	<b>0.1614</b>		<b>538.5188</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1796	0.8949	2.5909	1.7200e-003	0.0326	7.9300e-003	0.0405	8.9500e-003	7.2800e-003	0.0162		169.6334	169.6334	1.8300e-003		169.6719
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0210	0.0246	0.2684	6.2000e-004	0.0493	3.7000e-004	0.0497	0.0131	3.4000e-004	0.0134		52.1119	52.1119	2.6100e-003		52.1668
<b>Total</b>	<b>0.2005</b>	<b>0.9196</b>	<b>2.8594</b>	<b>2.3400e-003</b>	<b>0.0819</b>	<b>8.3000e-003</b>	<b>0.0902</b>	<b>0.0220</b>	<b>7.6200e-003</b>	<b>0.0296</b>		<b>221.7453</b>	<b>221.7453</b>	<b>4.4400e-003</b>		<b>221.8387</b>

**3.2 Main Channel - 2016****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3278	0.0000	5.3278	2.9037	0.0000	2.9037			0.0000			0.0000
Off-Road	0.4547	4.7312	3.8024	5.1500e-003		0.3331	0.3331		0.3064	0.3064	0.0000	535.1291	535.1291	0.1614		538.5188
<b>Total</b>	<b>0.4547</b>	<b>4.7312</b>	<b>3.8024</b>	<b>5.1500e-003</b>	<b>5.3278</b>	<b>0.3331</b>	<b>5.6609</b>	<b>2.9037</b>	<b>0.3064</b>	<b>3.2101</b>	<b>0.0000</b>	<b>535.1291</b>	<b>535.1291</b>	<b>0.1614</b>		<b>538.5188</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1796	0.8949	2.5909	1.7200e-003	0.0326	7.9300e-003	0.0405	8.9500e-003	7.2800e-003	0.0162		169.6334	169.6334	1.8300e-003		169.6719
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0210	0.0246	0.2684	6.2000e-004	0.0493	3.7000e-004	0.0497	0.0131	3.4000e-004	0.0134		52.1119	52.1119	2.6100e-003		52.1668
<b>Total</b>	<b>0.2005</b>	<b>0.9196</b>	<b>2.8594</b>	<b>2.3400e-003</b>	<b>0.0819</b>	<b>8.3000e-003</b>	<b>0.0902</b>	<b>0.0220</b>	<b>7.6200e-003</b>	<b>0.0296</b>		<b>221.7453</b>	<b>221.7453</b>	<b>4.4400e-003</b>		<b>221.8387</b>

### 3.3 Short Channel - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.8471	0.0000	5.8471	2.9594	0.0000	2.9594			0.0000			0.0000
Off-Road	0.4547	4.7312	3.8024	5.1500e-003		0.3331	0.3331		0.3064	0.3064		535.1291	535.1291	0.1614		538.5188
<b>Total</b>	<b>0.4547</b>	<b>4.7312</b>	<b>3.8024</b>	<b>5.1500e-003</b>	<b>5.8471</b>	<b>0.3331</b>	<b>6.1801</b>	<b>2.9594</b>	<b>0.3064</b>	<b>3.2658</b>		<b>535.1291</b>	<b>535.1291</b>	<b>0.1614</b>		<b>538.5188</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1036	0.5163	1.4948	9.9000e-004	0.0188	4.5700e-003	0.0234	5.1600e-003	4.2000e-003	9.3600e-003		97.8654	97.8654	1.0600e-003		97.8876
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0140	0.0164	0.1790	4.2000e-004	0.0329	2.5000e-004	0.0331	8.7200e-003	2.3000e-004	8.9400e-003		34.7413	34.7413	1.7400e-003		34.7778
<b>Total</b>	<b>0.1176</b>	<b>0.5327</b>	<b>1.6737</b>	<b>1.4100e-003</b>	<b>0.0517</b>	<b>4.8200e-003</b>	<b>0.0565</b>	<b>0.0139</b>	<b>4.4300e-003</b>	<b>0.0183</b>		<b>132.6067</b>	<b>132.6067</b>	<b>2.8000e-003</b>		<b>132.6655</b>

### 3.3 Short Channel - 2016

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.8471	0.0000	5.8471	2.9594	0.0000	2.9594			0.0000			0.0000
Off-Road	0.4547	4.7312	3.8024	5.1500e-003		0.3331	0.3331		0.3064	0.3064	0.0000	535.1291	535.1291	0.1614		538.5188
<b>Total</b>	<b>0.4547</b>	<b>4.7312</b>	<b>3.8024</b>	<b>5.1500e-003</b>	<b>5.8471</b>	<b>0.3331</b>	<b>6.1801</b>	<b>2.9594</b>	<b>0.3064</b>	<b>3.2658</b>	<b>0.0000</b>	<b>535.1291</b>	<b>535.1291</b>	<b>0.1614</b>		<b>538.5188</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1036	0.5163	1.4948	9.9000e-004	0.0188	4.5700e-003	0.0234	5.1600e-003	4.2000e-003	9.3600e-003		97.8654	97.8654	1.0600e-003		97.8876
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0140	0.0164	0.1790	4.2000e-004	0.0329	2.5000e-004	0.0331	8.7200e-003	2.3000e-004	8.9400e-003		34.7413	34.7413	1.7400e-003		34.7778
<b>Total</b>	<b>0.1176</b>	<b>0.5327</b>	<b>1.6737</b>	<b>1.4100e-003</b>	<b>0.0517</b>	<b>4.8200e-003</b>	<b>0.0565</b>	<b>0.0139</b>	<b>4.4300e-003</b>	<b>0.0183</b>		<b>132.6067</b>	<b>132.6067</b>	<b>2.8000e-003</b>		<b>132.6655</b>

### 3.4 Spruce Street - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					5.4195	0.0000	5.4195	2.9131	0.0000	2.9131			0.0000				0.0000
Off-Road	1.3966	15.5831	8.8564	0.0183		0.7425	0.7425		0.6831	0.6831		1,901.9736	1,901.9736	0.5737			1,914.0214
<b>Total</b>	<b>1.3966</b>	<b>15.5831</b>	<b>8.8564</b>	<b>0.0183</b>	<b>5.4195</b>	<b>0.7425</b>	<b>6.1620</b>	<b>2.9131</b>	<b>0.6831</b>	<b>3.5961</b>		<b>1,901.9736</b>	<b>1,901.9736</b>	<b>0.5737</b>			<b>1,914.0214</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0761	0.3792	1.0977	7.3000e-004	0.0138	3.3600e-003	0.0172	3.7900e-003	3.0900e-003	6.8800e-003		71.8699	71.8699	7.8000e-004			71.8862
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0210	0.0246	0.2684	6.2000e-004	0.0493	3.7000e-004	0.0497	0.0131	3.4000e-004	0.0134		52.1119	52.1119	2.6100e-003			52.1668
<b>Total</b>	<b>0.0971</b>	<b>0.4038</b>	<b>1.3662</b>	<b>1.3500e-003</b>	<b>0.0631</b>	<b>3.7300e-003</b>	<b>0.0668</b>	<b>0.0169</b>	<b>3.4300e-003</b>	<b>0.0203</b>		<b>123.9819</b>	<b>123.9819</b>	<b>3.3900e-003</b>			<b>124.0530</b>

### 3.4 Spruce Street - 2016

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.4195	0.0000	5.4195	2.9131	0.0000	2.9131			0.0000			0.0000
Off-Road	1.3966	15.5831	8.8564	0.0183		0.7425	0.7425		0.6831	0.6831	0.0000	1,901.9736	1,901.9736	0.5737		1,914.0214
<b>Total</b>	<b>1.3966</b>	<b>15.5831</b>	<b>8.8564</b>	<b>0.0183</b>	<b>5.4195</b>	<b>0.7425</b>	<b>6.1620</b>	<b>2.9131</b>	<b>0.6831</b>	<b>3.5961</b>	<b>0.0000</b>	<b>1,901.9736</b>	<b>1,901.9736</b>	<b>0.5737</b>		<b>1,914.0214</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0761	0.3792	1.0977	7.3000e-004	0.0138	3.3600e-003	0.0172	3.7900e-003	3.0900e-003	6.8800e-003		71.8699	71.8699	7.8000e-004		71.8862
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0210	0.0246	0.2684	6.2000e-004	0.0493	3.7000e-004	0.0497	0.0131	3.4000e-004	0.0134		52.1119	52.1119	2.6100e-003		52.1668
<b>Total</b>	<b>0.0971</b>	<b>0.4038</b>	<b>1.3662</b>	<b>1.3500e-003</b>	<b>0.0631</b>	<b>3.7300e-003</b>	<b>0.0668</b>	<b>0.0169</b>	<b>3.4300e-003</b>	<b>0.0203</b>		<b>123.9819</b>	<b>123.9819</b>	<b>3.3900e-003</b>		<b>124.0530</b>

### 3.5 Concrete Channel - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7109	0.0000	5.7109	2.9449	0.0000	2.9449			0.0000			0.0000
Off-Road	1.3966	15.5831	8.8564	0.0183		0.7425	0.7425		0.6831	0.6831		1,901.9736	1,901.9736	0.5737		1,914.0214
<b>Total</b>	<b>1.3966</b>	<b>15.5831</b>	<b>8.8564</b>	<b>0.0183</b>	<b>5.7109</b>	<b>0.7425</b>	<b>6.4534</b>	<b>2.9449</b>	<b>0.6831</b>	<b>3.6280</b>		<b>1,901.9736</b>	<b>1,901.9736</b>	<b>0.5737</b>		<b>1,914.0214</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1505	0.7503	2.1721	1.4400e-003	0.0273	6.6500e-003	0.0339	7.5000e-003	6.1000e-003	0.0136		142.2107	142.2107	1.5400e-003		142.2430
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0210	0.0246	0.2684	6.2000e-004	0.0493	3.7000e-004	0.0497	0.0131	3.4000e-004	0.0134		52.1119	52.1119	2.6100e-003		52.1668
<b>Total</b>	<b>0.1715</b>	<b>0.7749</b>	<b>2.4405</b>	<b>2.0600e-003</b>	<b>0.0766</b>	<b>7.0200e-003</b>	<b>0.0836</b>	<b>0.0206</b>	<b>6.4400e-003</b>	<b>0.0270</b>		<b>194.3226</b>	<b>194.3226</b>	<b>4.1500e-003</b>		<b>194.4097</b>

### 3.5 Concrete Channel - 2016

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7109	0.0000	5.7109	2.9449	0.0000	2.9449			0.0000			0.0000
Off-Road	1.3966	15.5831	8.8564	0.0183		0.7425	0.7425		0.6831	0.6831	0.0000	1,901.9736	1,901.9736	0.5737		1,914.0214
<b>Total</b>	<b>1.3966</b>	<b>15.5831</b>	<b>8.8564</b>	<b>0.0183</b>	<b>5.7109</b>	<b>0.7425</b>	<b>6.4534</b>	<b>2.9449</b>	<b>0.6831</b>	<b>3.6280</b>	<b>0.0000</b>	<b>1,901.9736</b>	<b>1,901.9736</b>	<b>0.5737</b>		<b>1,914.0214</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1505	0.7503	2.1721	1.4400e-003	0.0273	6.6500e-003	0.0339	7.5000e-003	6.1000e-003	0.0136		142.2107	142.2107	1.5400e-003		142.2430
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0210	0.0246	0.2684	6.2000e-004	0.0493	3.7000e-004	0.0497	0.0131	3.4000e-004	0.0134		52.1119	52.1119	2.6100e-003		52.1668
<b>Total</b>	<b>0.1715</b>	<b>0.7749</b>	<b>2.4405</b>	<b>2.0600e-003</b>	<b>0.0766</b>	<b>7.0200e-003</b>	<b>0.0836</b>	<b>0.0206</b>	<b>6.4400e-003</b>	<b>0.0270</b>		<b>194.3226</b>	<b>194.3226</b>	<b>4.1500e-003</b>		<b>194.4097</b>

### 3.6 Dewatering Platform - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5400	6.3987	2.2386	4.2300e-003		0.2904	0.2904		0.2671	0.2671		439.6761	439.6761	0.1326		442.4611
<b>Total</b>	<b>0.5400</b>	<b>6.3987</b>	<b>2.2386</b>	<b>4.2300e-003</b>		<b>0.2904</b>	<b>0.2904</b>		<b>0.2671</b>	<b>0.2671</b>		<b>439.6761</b>	<b>439.6761</b>	<b>0.1326</b>		<b>442.4611</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0140	0.0164	0.1790	4.2000e-004	0.0329	2.5000e-004	0.0331	8.7200e-003	2.3000e-004	8.9400e-003		34.7413	34.7413	1.7400e-003		34.7778
<b>Total</b>	<b>0.0140</b>	<b>0.0164</b>	<b>0.1790</b>	<b>4.2000e-004</b>	<b>0.0329</b>	<b>2.5000e-004</b>	<b>0.0331</b>	<b>8.7200e-003</b>	<b>2.3000e-004</b>	<b>8.9400e-003</b>		<b>34.7413</b>	<b>34.7413</b>	<b>1.7400e-003</b>		<b>34.7778</b>

### 3.6 Dewatering Platform - 2016

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5400	6.3987	2.2386	4.2300e-003		0.2904	0.2904		0.2671	0.2671	0.0000	439.6761	439.6761	0.1326		442.4611
<b>Total</b>	<b>0.5400</b>	<b>6.3987</b>	<b>2.2386</b>	<b>4.2300e-003</b>		<b>0.2904</b>	<b>0.2904</b>		<b>0.2671</b>	<b>0.2671</b>	<b>0.0000</b>	<b>439.6761</b>	<b>439.6761</b>	<b>0.1326</b>		<b>442.4611</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0140	0.0164	0.1790	4.2000e-004	0.0329	2.5000e-004	0.0331	8.7200e-003	2.3000e-004	8.9400e-003		34.7413	34.7413	1.7400e-003		34.7778
<b>Total</b>	<b>0.0140</b>	<b>0.0164</b>	<b>0.1790</b>	<b>4.2000e-004</b>	<b>0.0329</b>	<b>2.5000e-004</b>	<b>0.0331</b>	<b>8.7200e-003</b>	<b>2.3000e-004</b>	<b>8.9400e-003</b>		<b>34.7413</b>	<b>34.7413</b>	<b>1.7400e-003</b>		<b>34.7778</b>

### 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

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

### 4.2 Trip Summary Information

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

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510118	0.073510	0.192396	0.133166	0.036737	0.005265	0.012605	0.021642	0.001847	0.002083	0.006548	0.000610	0.003471

### 5.0 Energy Detail

#### 4.4 Fleet Mix

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

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

### 5.2 Energy by Land Use - NaturalGas

#### Unmitigated

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

### 5.2 Energy by Land Use - NaturalGas

#### Mitigated

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

### 6.0 Area Detail

#### 6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.9425	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
Unmitigated	1.9425	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004

## 6.2 Area by SubCategory

### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4445					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4980					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
<b>Total</b>	<b>1.9425</b>	<b>0.0000</b>	<b>1.7000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>3.5000e-004</b>	<b>3.5000e-004</b>	<b>0.0000</b>		<b>3.7000e-004</b>

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4445					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4980					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	1.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.5000e-004	3.5000e-004	0.0000		3.7000e-004
<b>Total</b>	<b>1.9425</b>	<b>0.0000</b>	<b>1.7000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>3.5000e-004</b>	<b>3.5000e-004</b>	<b>0.0000</b>		<b>3.7000e-004</b>

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## 10.0 Vegetation

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**Spruce Street**  
**San Diego Air Basin, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.60	User Defined Unit	1.60	70,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2016
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics -

Land Use - Acreage consistent with engineering report.

Construction Phase - Construction schedule consistent with the engineering report.

Off-road Equipment - Consistent with the engineering report.

Trips and VMT - Worker and haul trips consistent with engineering report. Assumes 2-mile roundtrip haul distance to the City's Corporate Public Works Yard.

Grading - Consistent with the engineering report.



tblOffRoadEquipment	PhaseName		Concrete Channel
tblOffRoadEquipment	PhaseName		Spruce Street
tblOffRoadEquipment	PhaseName		Short Channel
tblOffRoadEquipment	PhaseName		Main Channel
tblOffRoadEquipment	PhaseName		Spruce Street
tblOffRoadEquipment	PhaseName		Concrete Channel
tblProjectCharacteristics	OperationalYear	2014	2016
tblTripsAndVMT	HaulingTripLength	20.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	832.00
tblTripsAndVMT	HaulingTripNumber	0.00	32.00
tblTripsAndVMT	HaulingTripNumber	0.00	94.00
tblTripsAndVMT	HaulingTripNumber	0.00	62.00
tblTripsAndVMT	VendorTripNumber	11.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	6.00
tblTripsAndVMT	WorkerTripNumber	10.00	4.00
tblTripsAndVMT	WorkerTripNumber	13.00	6.00
tblTripsAndVMT	WorkerTripNumber	13.00	6.00
tblTripsAndVMT	WorkerTripNumber	29.00	4.00

## 2.0 Emissions Summary

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## 2.2 Overall Operational

### Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3545	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.3545</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

## 2.2 Overall Operational

### Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3545	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.3545</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

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

## 3.0 Construction Detail

### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Main Channel	Site Preparation	5/1/2016	7/1/2016	5	45	
2	Short Channel	Site Preparation	7/2/2016	7/6/2016	5	3	
3	Spruce Street	Site Preparation	7/7/2016	7/22/2016	5	12	
4	Concrete Channel	Site Preparation	7/23/2016	7/28/2016	5	4	
5	Dewatering Platform	Building Construction	7/29/2016	7/29/2016	5	1	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Dewatering Platform	Cranes	1	6.00	226	0.29
Concrete Channel	Off-Highway Trucks	1	8.00	400	0.38
Spruce Street	Off-Highway Trucks	1	8.00	400	0.38
Short Channel	Skid Steer Loaders	1	8.00	64	0.37
Spruce Street	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Short Channel	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Concrete Channel	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Main Channel	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Main Channel	Skid Steer Loaders	1	8.00	64	0.37
Spruce Street	Skid Steer Loaders	1	8.00	64	0.37
Concrete Channel	Skid Steer Loaders	1	8.00	64	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Main Channel	4	6.00	0.00	832.00	10.80	7.30	2.00	LD_Mix	HDT_Mix	HHDT
Short Channel	4	4.00	0.00	32.00	10.80	7.30	2.00	LD_Mix	HDT_Mix	HHDT
Spruce Street	5	6.00	0.00	94.00	10.80	7.30	2.00	LD_Mix	HDT_Mix	HHDT
Concrete Channel	5	6.00	0.00	62.00	10.80	7.30	2.00	LD_Mix	HDT_Mix	HHDT
Dewatering Platform	7	4.00	0.00	0.00	10.80	7.30	2.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

### 3.2 Main Channel - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1199	0.0000	0.1199	0.0653	0.0000	0.0653	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0102	0.1065	0.0856	1.2000e-004		7.4900e-003	7.4900e-003		6.8900e-003	6.8900e-003	0.0000	10.9229	10.9229	3.2900e-003	0.0000	10.9921
<b>Total</b>	<b>0.0102</b>	<b>0.1065</b>	<b>0.0856</b>	<b>1.2000e-004</b>	<b>0.1199</b>	<b>7.4900e-003</b>	<b>0.1274</b>	<b>0.0653</b>	<b>6.8900e-003</b>	<b>0.0722</b>	<b>0.0000</b>	<b>10.9229</b>	<b>10.9229</b>	<b>3.2900e-003</b>	<b>0.0000</b>	<b>10.9921</b>

### 3.2 Main Channel - 2016

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.6000e-003	0.0206	0.0748	4.0000e-005	7.2000e-004	1.8000e-004	9.0000e-004	2.0000e-004	1.7000e-004	3.6000e-004	0.0000	3.4345	3.4345	4.0000e-005	0.0000	3.4353
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	6.1000e-004	5.8300e-003	1.0000e-005	1.0800e-003	1.0000e-005	1.0900e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.0089	1.0089	5.0000e-005	0.0000	1.0100
<b>Total</b>	<b>5.0600e-003</b>	<b>0.0213</b>	<b>0.0806</b>	<b>5.0000e-005</b>	<b>1.8000e-003</b>	<b>1.9000e-004</b>	<b>1.9900e-003</b>	<b>4.9000e-004</b>	<b>1.8000e-004</b>	<b>6.6000e-004</b>	<b>0.0000</b>	<b>4.4434</b>	<b>4.4434</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>4.4453</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1199	0.0000	0.1199	0.0653	0.0000	0.0653	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0102	0.1065	0.0856	1.2000e-004		7.4900e-003	7.4900e-003		6.8900e-003	6.8900e-003	0.0000	10.9229	10.9229	3.2900e-003	0.0000	10.9921
<b>Total</b>	<b>0.0102</b>	<b>0.1065</b>	<b>0.0856</b>	<b>1.2000e-004</b>	<b>0.1199</b>	<b>7.4900e-003</b>	<b>0.1274</b>	<b>0.0653</b>	<b>6.8900e-003</b>	<b>0.0722</b>	<b>0.0000</b>	<b>10.9229</b>	<b>10.9229</b>	<b>3.2900e-003</b>	<b>0.0000</b>	<b>10.9921</b>

### 3.2 Main Channel - 2016

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.6000e-003	0.0206	0.0748	4.0000e-005	7.2000e-004	1.8000e-004	9.0000e-004	2.0000e-004	1.7000e-004	3.6000e-004	0.0000	3.4345	3.4345	4.0000e-005	0.0000	3.4353
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	6.1000e-004	5.8300e-003	1.0000e-005	1.0800e-003	1.0000e-005	1.0900e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.0089	1.0089	5.0000e-005	0.0000	1.0100
<b>Total</b>	<b>5.0600e-003</b>	<b>0.0213</b>	<b>0.0806</b>	<b>5.0000e-005</b>	<b>1.8000e-003</b>	<b>1.9000e-004</b>	<b>1.9900e-003</b>	<b>4.9000e-004</b>	<b>1.8000e-004</b>	<b>6.6000e-004</b>	<b>0.0000</b>	<b>4.4434</b>	<b>4.4434</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>4.4453</b>

### 3.3 Short Channel - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.7700e-003	0.0000	8.7700e-003	4.4400e-003	0.0000	4.4400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	7.1000e-003	5.7000e-003	1.0000e-005		5.0000e-004	5.0000e-004		4.6000e-004	4.6000e-004	0.0000	0.7282	0.7282	2.2000e-004	0.0000	0.7328
<b>Total</b>	<b>6.8000e-004</b>	<b>7.1000e-003</b>	<b>5.7000e-003</b>	<b>1.0000e-005</b>	<b>8.7700e-003</b>	<b>5.0000e-004</b>	<b>9.2700e-003</b>	<b>4.4400e-003</b>	<b>4.6000e-004</b>	<b>4.9000e-003</b>	<b>0.0000</b>	<b>0.7282</b>	<b>0.7282</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.7328</b>

**3.3 Short Channel - 2016****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8000e-004	7.9000e-004	2.8800e-003	0.0000	3.0000e-005	1.0000e-005	3.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	0.1321	0.1321	0.0000	0.0000	0.1321
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	3.0000e-005	2.6000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0448	0.0448	0.0000	0.0000	0.0449
<b>Total</b>	<b>2.0000e-004</b>	<b>8.2000e-004</b>	<b>3.1400e-003</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>1.0000e-005</b>	<b>8.0000e-005</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.1769</b>	<b>0.1769</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1770</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.7700e-003	0.0000	8.7700e-003	4.4400e-003	0.0000	4.4400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	7.1000e-003	5.7000e-003	1.0000e-005		5.0000e-004	5.0000e-004		4.6000e-004	4.6000e-004	0.0000	0.7282	0.7282	2.2000e-004	0.0000	0.7328
<b>Total</b>	<b>6.8000e-004</b>	<b>7.1000e-003</b>	<b>5.7000e-003</b>	<b>1.0000e-005</b>	<b>8.7700e-003</b>	<b>5.0000e-004</b>	<b>9.2700e-003</b>	<b>4.4400e-003</b>	<b>4.6000e-004</b>	<b>4.9000e-003</b>	<b>0.0000</b>	<b>0.7282</b>	<b>0.7282</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.7328</b>

### 3.3 Short Channel - 2016

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8000e-004	7.9000e-004	2.8800e-003	0.0000	3.0000e-005	1.0000e-005	3.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	0.1321	0.1321	0.0000	0.0000	0.1321
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	3.0000e-005	2.6000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0448	0.0448	0.0000	0.0000	0.0449
<b>Total</b>	<b>2.0000e-004</b>	<b>8.2000e-004</b>	<b>3.1400e-003</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>1.0000e-005</b>	<b>8.0000e-005</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.1769</b>	<b>0.1769</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1770</b>

### 3.4 Spruce Street - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0325	0.0000	0.0325	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3800e-003	0.0935	0.0531	1.1000e-004		4.4500e-003	4.4500e-003		4.1000e-003	4.1000e-003	0.0000	10.3527	10.3527	3.1200e-003	0.0000	10.4182
<b>Total</b>	<b>8.3800e-003</b>	<b>0.0935</b>	<b>0.0531</b>	<b>1.1000e-004</b>	<b>0.0325</b>	<b>4.4500e-003</b>	<b>0.0370</b>	<b>0.0175</b>	<b>4.1000e-003</b>	<b>0.0216</b>	<b>0.0000</b>	<b>10.3527</b>	<b>10.3527</b>	<b>3.1200e-003</b>	<b>0.0000</b>	<b>10.4182</b>

### 3.4 Spruce Street - 2016

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.2000e-004	2.3300e-003	8.4500e-003	0.0000	8.0000e-005	2.0000e-005	1.0000e-004	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.3880	0.3880	0.0000	0.0000	0.3881
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.6000e-004	1.5500e-003	0.0000	2.9000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2690	0.2690	1.0000e-005	0.0000	0.2693
<b>Total</b>	<b>6.4000e-004</b>	<b>2.4900e-003</b>	<b>1.0000e-002</b>	<b>0.0000</b>	<b>3.7000e-004</b>	<b>2.0000e-005</b>	<b>3.9000e-004</b>	<b>1.0000e-004</b>	<b>2.0000e-005</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.6571</b>	<b>0.6571</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.6575</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0325	0.0000	0.0325	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3800e-003	0.0935	0.0531	1.1000e-004		4.4500e-003	4.4500e-003		4.1000e-003	4.1000e-003	0.0000	10.3526	10.3526	3.1200e-003	0.0000	10.4182
<b>Total</b>	<b>8.3800e-003</b>	<b>0.0935</b>	<b>0.0531</b>	<b>1.1000e-004</b>	<b>0.0325</b>	<b>4.4500e-003</b>	<b>0.0370</b>	<b>0.0175</b>	<b>4.1000e-003</b>	<b>0.0216</b>	<b>0.0000</b>	<b>10.3526</b>	<b>10.3526</b>	<b>3.1200e-003</b>	<b>0.0000</b>	<b>10.4182</b>

### 3.4 Spruce Street - 2016

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.2000e-004	2.3300e-003	8.4500e-003	0.0000	8.0000e-005	2.0000e-005	1.0000e-004	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.3880	0.3880	0.0000	0.0000	0.3881
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.6000e-004	1.5500e-003	0.0000	2.9000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2690	0.2690	1.0000e-005	0.0000	0.2693
<b>Total</b>	<b>6.4000e-004</b>	<b>2.4900e-003</b>	<b>1.0000e-002</b>	<b>0.0000</b>	<b>3.7000e-004</b>	<b>2.0000e-005</b>	<b>3.9000e-004</b>	<b>1.0000e-004</b>	<b>2.0000e-005</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.6571</b>	<b>0.6571</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.6575</b>

### 3.5 Concrete Channel - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0114	0.0000	0.0114	5.8900e-003	0.0000	5.8900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7900e-003	0.0312	0.0177	4.0000e-005		1.4800e-003	1.4800e-003		1.3700e-003	1.3700e-003	0.0000	3.4509	3.4509	1.0400e-003	0.0000	3.4727
<b>Total</b>	<b>2.7900e-003</b>	<b>0.0312</b>	<b>0.0177</b>	<b>4.0000e-005</b>	<b>0.0114</b>	<b>1.4800e-003</b>	<b>0.0129</b>	<b>5.8900e-003</b>	<b>1.3700e-003</b>	<b>7.2600e-003</b>	<b>0.0000</b>	<b>3.4509</b>	<b>3.4509</b>	<b>1.0400e-003</b>	<b>0.0000</b>	<b>3.4727</b>

### 3.5 Concrete Channel - 2016

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4000e-004	1.5400e-003	5.5700e-003	0.0000	5.0000e-005	1.0000e-005	7.0000e-005	1.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2559	0.2559	0.0000	0.0000	0.2560
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0897	0.0897	0.0000	0.0000	0.0898
<b>Total</b>	<b>3.8000e-004</b>	<b>1.5900e-003</b>	<b>6.0900e-003</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>1.0000e-005</b>	<b>1.7000e-004</b>	<b>4.0000e-005</b>	<b>1.0000e-005</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.3456</b>	<b>0.3456</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.3458</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0114	0.0000	0.0114	5.8900e-003	0.0000	5.8900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7900e-003	0.0312	0.0177	4.0000e-005		1.4800e-003	1.4800e-003		1.3700e-003	1.3700e-003	0.0000	3.4509	3.4509	1.0400e-003	0.0000	3.4727
<b>Total</b>	<b>2.7900e-003</b>	<b>0.0312</b>	<b>0.0177</b>	<b>4.0000e-005</b>	<b>0.0114</b>	<b>1.4800e-003</b>	<b>0.0129</b>	<b>5.8900e-003</b>	<b>1.3700e-003</b>	<b>7.2600e-003</b>	<b>0.0000</b>	<b>3.4509</b>	<b>3.4509</b>	<b>1.0400e-003</b>	<b>0.0000</b>	<b>3.4727</b>

### 3.5 Concrete Channel - 2016

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4000e-004	1.5400e-003	5.5700e-003	0.0000	5.0000e-005	1.0000e-005	7.0000e-005	1.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2559	0.2559	0.0000	0.0000	0.2560
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0897	0.0897	0.0000	0.0000	0.0898
<b>Total</b>	<b>3.8000e-004</b>	<b>1.5900e-003</b>	<b>6.0900e-003</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>1.0000e-005</b>	<b>1.7000e-004</b>	<b>4.0000e-005</b>	<b>1.0000e-005</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.3456</b>	<b>0.3456</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.3458</b>

### 3.6 Dewatering Platform - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.7000e-004	3.2000e-003	1.1200e-003	0.0000		1.5000e-004	1.5000e-004		1.3000e-004	1.3000e-004	0.0000	0.1994	0.1994	6.0000e-005	0.0000	0.2007
<b>Total</b>	<b>2.7000e-004</b>	<b>3.2000e-003</b>	<b>1.1200e-003</b>	<b>0.0000</b>		<b>1.5000e-004</b>	<b>1.5000e-004</b>		<b>1.3000e-004</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>0.1994</b>	<b>0.1994</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.2007</b>

### 3.6 Dewatering Platform - 2016

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	9.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0150	0.0150	0.0000	0.0000	0.0150	0.0150
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0150</b>	<b>0.0150</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0150</b>	<b>0.0150</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.7000e-004	3.2000e-003	1.1200e-003	0.0000		1.5000e-004	1.5000e-004		1.3000e-004	1.3000e-004	0.0000	0.1994	0.1994	6.0000e-005	0.0000	0.2007
<b>Total</b>	<b>2.7000e-004</b>	<b>3.2000e-003</b>	<b>1.1200e-003</b>	<b>0.0000</b>		<b>1.5000e-004</b>	<b>1.5000e-004</b>		<b>1.3000e-004</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>0.1994</b>	<b>0.1994</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.2007</b>



**4.2 Trip Summary Information**

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

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510118	0.073510	0.192396	0.133166	0.036737	0.005265	0.012605	0.021642	0.001847	0.002083	0.006548	0.000610	0.003471

**5.0 Energy Detail**

~~4.4 Fleet Mix~~

Historical Energy Use: N

**5.1 Mitigation Measures Energy**



### 5.2 Energy by Land Use - NaturalGas

#### Mitigated

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

### 5.3 Energy by Land Use - Electricity

#### Unmitigated

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

### 5.3 Energy by Land Use - Electricity

#### Mitigated

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

### 6.0 Area Detail

#### 6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3545	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	0.3545	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005

## 6.2 Area by SubCategory

### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0811					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2734					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
<b>Total</b>	<b>0.3545</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0811					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2734					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
<b>Total</b>	<b>0.3545</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

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

### 7.2 Water by Land Use

#### Unmitigated

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

## 7.2 Water by Land Use

### Mitigated

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

## 8.0 Waste Detail

---

### 8.1 Mitigation Measures Waste

#### Category/Year

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

## 8.2 Waste by Land Use

### Unmitigated

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

### Mitigated

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

## 9.0 Operational Offroad

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

## **10.0 Vegetation**

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## **APPENDIX C**

### **TRIBAL CORRESPONDENCE**





AECOM  
401 West A Street  
Suite 1200  
San Diego, CA 92101  
www.aecom.com

619.610.7600 tel  
619.610.7601 fax

## Memorandum

To	Katy Sanchez	Page	1
Fax	916-657-5390		
Subject	Spruce Street Drainage Improvements Project		
From	Rachel Droessler		
Date	July 19, 2015		

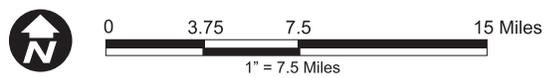
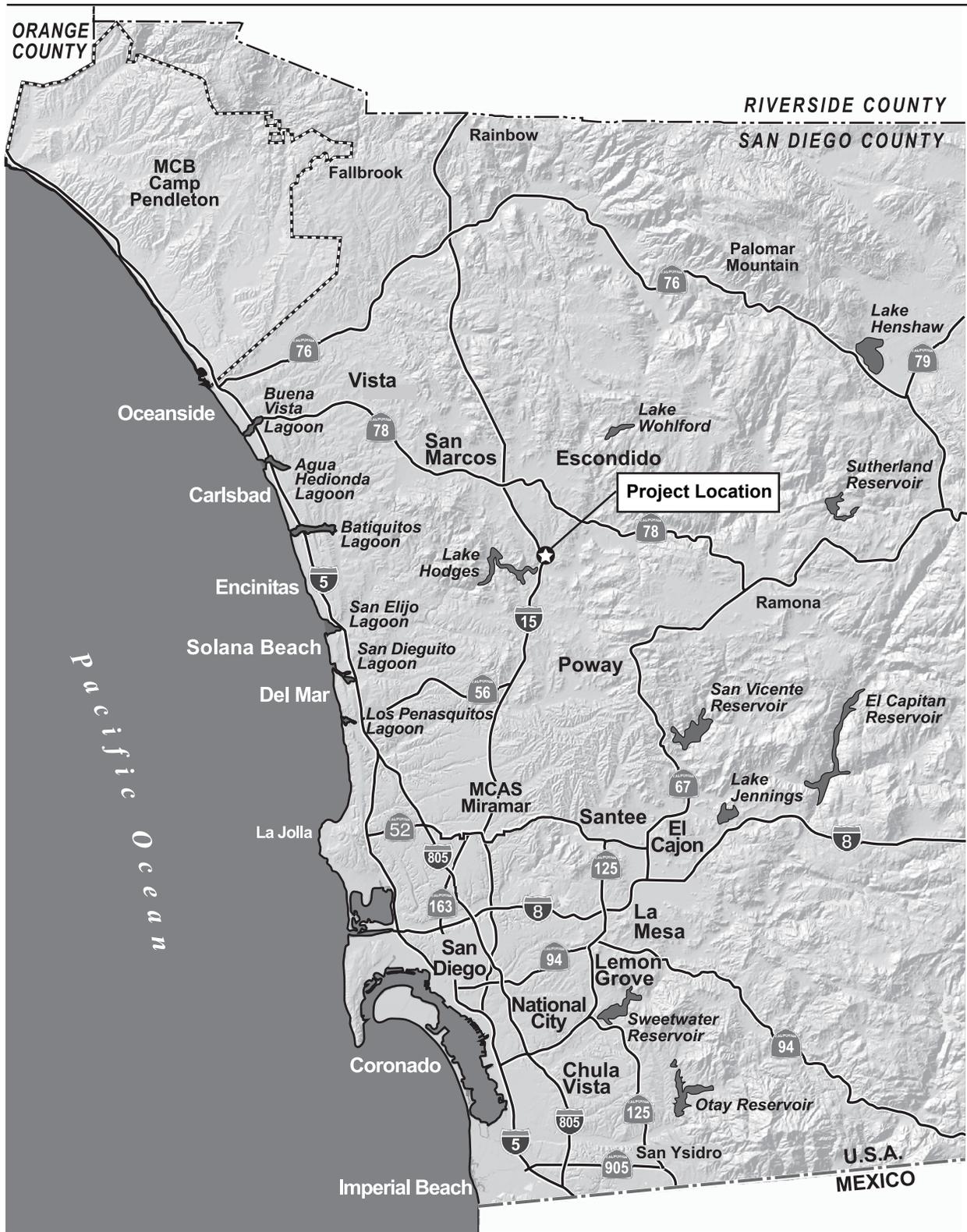
We are contacting you to request a Sacred Lands file check for a one-mile radius around a 1.6-acre project area associated with the Spruce Street Drainage Improvements Project. This project is located in the City of Escondido. Attached is a map showing the project area and the one-mile sacred lands file check buffer. This project requires a cultural resources records search to be used to support preliminary design decisions. This NAHC letter is in support of an initial study/mitigated negative declaration report for proposed drainage improvements including vegetation removal and modifying structural components for improved hydraulic performance and reduced sedimentation fallout. The records search, submitted to the SCIC on June 30, 2015, includes a one-mile buffer around the project area and a response was received on July 19, 2015. Ten archaeological resources are located within the one-mile records search buffer and consist of bedrock milling sites and historic artifact scatters. A single metavolcanic flake was recorded within 200' of the project area in 1996. The remaining nine resources are all located more than one-half mile from the project site. Fifty-eight reports intersect the project area.

Escondido USGS Unsectioned Rincon Del  
7.5' Map Diablo Land Grant  
Zone 11S NAD83  
491341mE / 3664397 mN

If you have any questions, please do not hesitate to call me at (619) 610-7638.

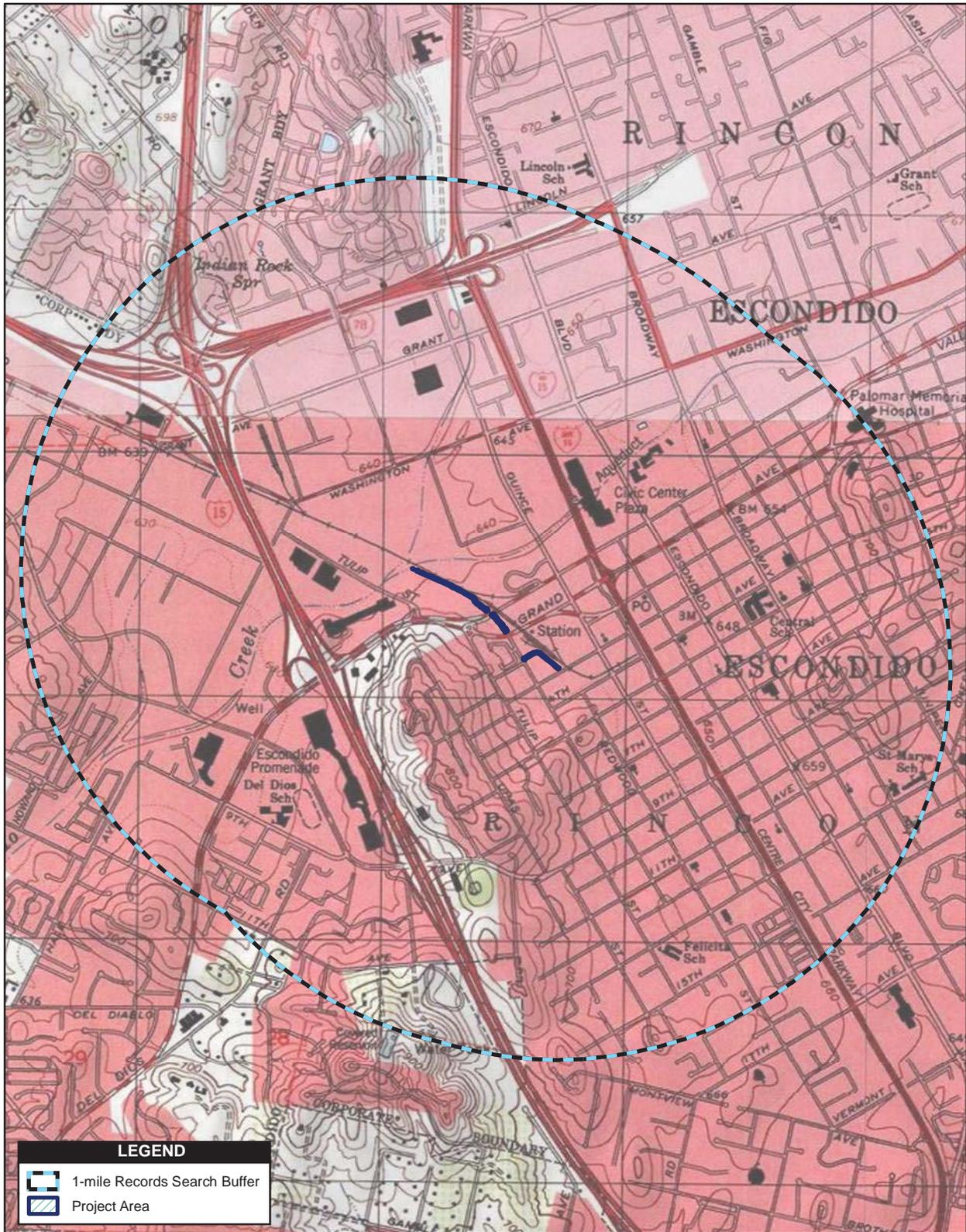
Sincerely,

Rachel Droessler  
Archaeologist

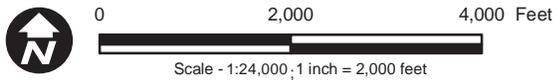


**Figure 1**  
**Regional Map**

Spruce Street Drainage Improvements



Source: SanGIS 2012, 2014; City of Escondido 2010



**Figure 2**  
**Records Search**

**Spruce Street Restoration Engineering Plan**

Path: P:\2014\60313771\_Esc\_MissionP\900-CAD-GIS\920 GIS\922\_Maps\Cultural\Cultural\_RS20150630.mxd, 6/30/2015, droessler

**NATIVE AMERICAN HERITAGE COMMISSION**

1550 Harbor Blvd., ROOM 100  
West SACRAMENTO, CA 95691  
(916) 373-3710  
Fax (916) 373-5471



October 2, 2015

Rachel Droessler  
AECOM  
401 West A Street, Suite 1200  
San Diego, CA 92101

Email to: aecom.com

Re: Spruce Street Drainage Improvements Project, San Diego County.

Dear Ms. Droessler,

A record search of the Native American Heritage Commission (NAHC) *Sacred Lands File* was completed for the area of potential project effect (APE) for the project referenced above. The search indicates the potential of Native American cultural resources in the Escondido Quadrangle that may be impacted. For specific information regarding this site, please contact the San Luis Rey Band of Mission Indians on the San Diego County list.

The absence of specific site information in the *Sacred Lands File* does not indicate the absence of Native American cultural resources in any APE. Other sources of cultural resources information should be contacted regarding known and recorded sites. Please contact all of the people on the attached *Native American Contact List*. The list should provide a starting place to locate areas of potential adverse impact within the APE. I suggest you contact all of those listed, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those on the list, your organization will be better able to respond to claims of failure to consult. If a response has not been received within two weeks of notification, the NAHC requests that you follow-up with a telephone call to ensure that the project information has been received

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: [Katy.Sanchez@nahc.ca.gov](mailto:Katy.Sanchez@nahc.ca.gov).

Sincerely,

A handwritten signature in cursive script that reads "Katy Sanchez".

Katy Sanchez  
Associate Government Program Analyst

**Native American Contact List  
San Diego County  
October 1, 2015**

Pala Band of Mission Indians  
Shasta Gaughen, PhD, THPO  
PMB 50, 35008 Pala-Temecula Luiseno  
Pala , CA 92059 Cupeno  
sgaughen@palatribe.com  
(760) 891-3515

(760) 742-3189 Fax

Pauma & Yuima Reservation  
Temet Aguilar, Chairperson  
P.O. Box 369 Luiseno  
Pauma Valley CA 92061  
(760) 742-1289

(760) 742-3422 Fax

Pechanga Band of Mission Indians  
Paul Macarro, Cultural Resources Manager  
P.O. Box 1477 Luiseno  
Temecula , CA 92593  
pmacarro@pechanga-nsn.gov  
(951) 770-8100

(951) 506-9491 Fax

Rincon Band of Mission Indians  
Jim McPherson, Tribal Historic Pres. Officer  
1 West Tribal Road Luiseno  
Valley Center, CA 92082  
vwhipple@rincontri.org  
(760) 297-2635

(760) 297-2639 Fax

Soboba Band of Mission Indians  
Rosemary Morillo, Chairperson; Attn: Carrie Garcia  
P.O. Box 487 Luiseno  
San Jacinto , CA 92581 Cahuilla  
carrieg@soboba-nsn.gov  
(951) 654-2765

(951) 654-4198 Fax

Pauma Valley Band of Luiseño Indians  
Bennae Calac  
P.O. Box 369 Luiseno  
Pauma Valley CA 92061  
bennaecalac@aol.com  
(760) 617-2872

(760) 742-3422 Fax

Rincon Band of Mission Indians  
Bo Mazzetti, Chairperson  
1 West Tribal Road Luiseno  
Valley Center, CA 92082  
bomazzetti@aol.com  
(760) 749-1051

(760) 749-8901 Fax

San Luis Rey Band of Mission Indians  
Tribal Council  
1889 Sunset Drive Luiseno  
Vista , CA 92081  
cjmojado@slrmissionindians.org  
(760) 724-8505

(760) 724-2172 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Spruce Street Drainage Improvements Project, San Diego County.

**Native American Contact List  
San Diego County  
October 1, 2015**

San Luis Rey Band of Mission Indians  
Cultural Department

1889 Sunset Drive                      Luiseno  
Vista                      , CA 92081      Cupeno

cjmojado@slrmissionindians.org

(760) 724-8505

(760) 724-2172 Fax

Soboba Band of Luiseno Indians  
Joseph Ontiveros, Cultural Resource Department

P.O. BOX 487                              Luiseno  
San Jacinto                      , CA 92581      Cahuilla

jontiveros@soboba-nsn.gov

(951) 663-5279

(951) 654-5544, ext 4137

(951) 654-4198 Fax

Pechanga Band of Mission Indians  
Mark Macarro, Chairperson

P.O. Box 1477                              Luiseno  
Temecula                      , CA 92593

mgoodhart@pechanga-nsn.

(951) 770-6100

(951) 695-1778 Fax

La Jolla Band of Mission Indians  
Lavonne Peck, Chairwoman

22000 Highway 76                      Luiseno  
Pauma Valley CA 92061

Rob.roy@lajolla-nsn.gov

(760) 742-3771

(760) 742-1704 Fax

Pauma & Yuima Reservation  
Charles Devers, Cultural Committee

P.O. Box 369                              Luiseno  
Pauma Valley CA 92061

(760) 742-1289

(760) 742-3422 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Spruce Street Drainage Improvements Project, San Diego County.



Barbara J. Redlitz, AICP  
Director of Community Development  
Housing Division  
201 North Broadway, Escondido, CA 92025  
Phone: 760-839-4671 Fax: 760-839-4313

August 18, 2015

BY EMAIL AND U. S. MAIL

Rincon Band of Luiseno Indians  
Jim McPherson  
Cultural Resources  
1 West Tribal Road  
Valley Center, CA 92082  
[jmcperson@rincontribe.org](mailto:jmcperson@rincontribe.org)

RE: Assembly Bill 52 Notification  
Spruce Street Drainage Improvement - Escondido  
City Case Number: ENV15-0010

Dear Mr. McPherson:

We have received a written request from your tribal band for notification regarding proposed projects within the City of Escondido. In accordance with the provisions of California Assembly Bill 52, the purpose of this letter is to provide notification of the proposed development project described below. The City of Escondido will serve as the lead agency under the California Environmental Quality Act (CEQA) for the project.

Project Description:

The project proposes to make improvements to the existing Spruce Street storm water conveyance channel in order to address existing flooding and vector control issues.

The proposed project includes:

- clearing excessive vegetation overgrowth (including invasive, non-native species) and accumulated sediment within the storm water conveyance network;
- integrating new slope and bottom configuration designs for the earthen channels to increase conveyance capacity while integrating appropriate plantings for slope stability;
- modifying structural components within culverts for improved hydraulic performance and reduced sedimentation fallout;
- constructing manhole openings for improved access for maintenance of the portion of the channel underneath Spruce Street; and
- minor erosion control measures.

Improvements within the channel are not expected to extend beyond the original limits of the channel.

Location:

See the attached reference map. The project site begins at West 3<sup>rd</sup> Avenue east of Spruce Street, with the channel continuing along and under Spruce Street until the project portion of the channel connects with the City's existing flood control channel.

Assembly Bill 52 Notification  
Spruce Street Drainage Improvement - Escondido  
City Case Number: ENV15-0010

Page 2

Pursuant to Government Code Section 21080.3.1, subdivision (d), please respond in writing within 30 days of the date of this notice if your tribe requests a formal consultation with the City regarding this matter. Please contact Jay Paul, Associate Planner, at 760-839-4537 or [jpaul@escondido.org](mailto:jpaul@escondido.org) for more information.

Sincerely,

A handwritten signature in blue ink, appearing to read "Elisa Marrone".

Elisa Marrone, AICP  
Environmental Programs Specialist

# RINCON BAND OF LUISEÑO INDIANS

## Culture Committee

1 W. Tribal Road · Valley Center, California 92082 ·  
(760) 297-2621 or (760) 297-2622 & Fax:(760) 749-8901



October 23, 2015

Cheryl Bowden-Renna  
AECOM  
401 west A Street, Suite 1200  
San Diego, CA 92101

**Re: S. Spruce Street Drainage Improvements**

Dear Ms. Bowden-Renna:

This letter is written on behalf of the Rincon Band of Luiseño Indians. We received your notification and we thank you for the consultation on S. Spruce Street Drainage Improvements Project. The location you have identified is within the Aboriginal Territory of the Luiseño people, and is also within Rincon's historic boundaries.

Due to the nature and location of this project no further consultation is necessary at this time.

If there are any questions or concerns please do not hesitate to contact the Rincon Cultural Resources Department at (760) 297-2635 and they will be happy to assist you.

Thank you for the consideration and the opportunity to protect and preserve our cultural assets.

Sincerely,

Jim McPherson  
Manager  
Rincon Cultural Resources Department





Barbara J. Redlitz, AICP  
Director of Community Development  
Housing Division  
201 North Broadway, Escondido, CA 92025  
Phone: 760-839-4671 Fax: 760-839-4313

August 18, 2015

BY EMAIL AND U. S. MAIL

San Luis Rey Band of Mission Indians  
Cami Mojado, Cultural Resources Manager  
1889 Sunset Drive  
Vista, CA 92081  
[cmojado@slrmissionindians.org](mailto:cmojado@slrmissionindians.org)

RE: Assembly Bill 52 Notification  
Spruce Street Drainage Improvement - Escondido  
City Case Number: ENV15-0010

Dear Ms. Mojado:

We have received a written request from your tribal band for notification regarding proposed projects within the City of Escondido. In accordance with the provisions of California Assembly Bill 52, the purpose of this letter is to provide notification of the proposed development project described below. The City of Escondido will serve as the lead agency under the California Environmental Quality Act (CEQA) for the project.

Project Description:

The project proposes to make improvements to the existing Spruce Street storm water conveyance channel in order to address existing flooding and vector control issues.

The proposed project includes:

- clearing excessive vegetation overgrowth (including invasive, non-native species) and accumulated sediment within the storm water conveyance network;
- integrating new slope and bottom configuration designs for the earthen channels to increase conveyance capacity while integrating appropriate plantings for slope stability;
- modifying structural components within culverts for improved hydraulic performance and reduced sedimentation fallout;
- constructing manhole openings for improved access for maintenance of the portion of the channel underneath Spruce Street; and
- minor erosion control measures.

Improvements within the channel are not expected to extend beyond the original limits of the channel.

Location:

See the attached reference map. The project site begins at West 3<sup>rd</sup> Avenue east of Spruce Street, with the channel continuing along and under Spruce Street until the project portion of the channel connects with the City's existing flood control channel.

Assembly Bill 52 Notification  
Spruce Street Drainage Improvement - Escondido  
City Case Number: ENV15-0010

Page 2

Pursuant to Government Code Section 21080.3.1, subdivision (d), please respond in writing within 30 days of the date of this notice if your tribe requests a formal consultation with the City regarding this matter. Please contact Jay Paul, Associate Planner, at 760-839-4537 or [jpaul@escondido.org](mailto:jpaul@escondido.org) for more information.

Sincerely,

A handwritten signature in blue ink, appearing to read "Elisa Marrone". The signature is fluid and cursive, with a long horizontal stroke at the end.

Elisa Marrone, AICP  
Environmental Programs Specialist



Barbara J. Redlitz, AICP  
Director of Community Development  
Housing Division  
201 North Broadway, Escondido, CA 92025  
Phone: 760-839-4671 Fax: 760-839-4313

August 18, 2015

BY EMAIL AND U. S. MAIL

Soboba Band Luiseno Indians  
Joseph Ontiveros, Cultural Resource Director  
PO Box 487  
San Jacinto, CA 92581  
jontiveros@soboba-nsn.gov

RE: Assembly Bill 52 Notification  
Spruce Street Drainage Improvement - Escondido  
City Case Number: ENV15-0010

Dear Mr. Ontiveros:

We have received a written request from your tribal band for notification regarding proposed projects within the City of Escondido. In accordance with the provisions of California Assembly Bill 52, the purpose of this letter is to provide notification of the proposed development project described below. The City of Escondido will serve as the lead agency under the California Environmental Quality Act (CEQA) for the project.

Project Description:

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The proposed project includes:

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- constructing manhole openings for improved access for maintenance of the portion of the channel underneath Spruce Street; and
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Location:

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Assembly Bill 52 Notification  
Spruce Street Drainage Improvement - Escondido  
City Case Number: ENV15-0010

Page 2

Pursuant to Government Code Section 21080.3.1, subdivision (d), please respond in writing within 30 days of the date of this notice if your tribe requests a formal consultation with the City regarding this matter. Please contact Jay Paul, Associate Planner, at 760-839-4537 or [jpaul@escondido.org](mailto:jpaul@escondido.org) for more information.

Sincerely,



Elisa Marrone, AICP  
Environmental Programs Specialist

September 14, 2015

Attn: Elisa Marrone, AICP, Environmental Programs Specialist  
City of Escondido  
Planning Division  
201 North Broadway  
Escondido, CA 92025



**Re: AB 52 Consultation; Spruce Street Drainage Improvement – Escondido  
City Case Number: ENV 15-0010**

The Soboba Band of Luiseño Indians has received your notification pursuant under Assembly Bill 52.

The Soboba Band of Luiseño Indians appreciates your observance of Tribal Cultural Resources and their preservation in your project. The information provided to us on said project(s) has been assessed through our Cultural Resource Department. At this time the Soboba Band does not have any specific concerns regarding known cultural resources in the specified areas that the project encompasses, but does request that the appropriate consultation continue to take place between concerned tribes, project proponents, and local agencies.

Also, working in and around traditional use areas intensifies the possibility of encountering cultural resources during any future construction/excavation phases that may take place. For this reason, the Soboba Band wishes to defer to the Pauma Band of Luiseño Indians and the Rincon Band of Luiseño Indians, who are in closer proximity to the project. Please feel free to contact me with any additional questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe", with a long horizontal line extending to the right.

Joseph Ontiveros  
Cultural Resource Director  
Soboba Band of Luiseño Indians  
P.O. Box 487  
San Jacinto, CA 92581  
Phone (951) 654-5544 ext. 4137  
Cell (951) 663-5279  
[jontiveros@soboba-nsn.gov](mailto:jontiveros@soboba-nsn.gov)

**Confidentiality:** The entirety of the contents of this letter shall remain confidential between Soboba and the City of Escondido. No part of the contents of this letter may be shared, copied, or utilized in any way with any other individual, entity, municipality, or tribe, whatsoever, without the expressed written permission of the Soboba Band of Luiseño Indians.

October 16, 2015

Ternet Aguilar, Chairperson  
Pauma & Yuima Reservation  
P.O. Box 369  
Pauma Valley, California 92061

Dear Mr. Aguilar:

The City of Escondido is proposing drainage improvements along the channelized portion of Escondido Creek, along South Spruce Street (see map - attached). The channel (the proposed project area) begins north of the intersection of South Spruce Street and West 3rd Avenue as a concrete-lined channel and conveys drainage west (downstream) before going underground at South Spruce Street. The channel re-immerses west of the intersection of West Grand Avenue and South Spruce Street as an earthen channel and flows west through a short culvert under West Valley Parkway, and continues until it drains into Escondido Creek (a concrete-lined flood-control channel). The proposed project area is bounded to the west by the Escondido Creek flood channel, on the east by West 3rd Avenue, on the north by the North County Transit District railroad (primarily the Escondido Transit Center) and various commercial properties, and to the south by an existing small commercial strip mall and various industrial buildings.

The proposed project includes a combination of construction activities that are scheduled to begin in May of 2016. Drainage improvement activities are described below and include repairs and improvements such as removing silt and vegetation through the following measures:

- concrete and earthen channel dredging;
- culvert clean-out;
- installation of permanent manholes, concrete wingwalls, and sediment traps;
- vegetation clearing and trimming;
- access road clearing; and
- revegetation using drought-tolerant native plants.

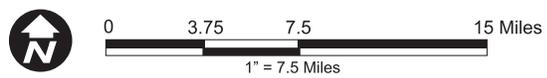
The purpose of this letter is to notify you of this project and to solicit your input. We would like to know if you have any questions, comments, or concerns regarding this project. A project map, a reply form, and a self-addressed stamped envelope have been included for your convenience. Providing comments now does not limit your ability to comment at a later time. Please write or call by October 30, 2015 so that we may include your views in our report.

Sincerely,



Cheryl Bowden-Renna  
Archaeologist  
[cheryl.bowden-renna@aecom.com](mailto:cheryl.bowden-renna@aecom.com)  
619-610-7625

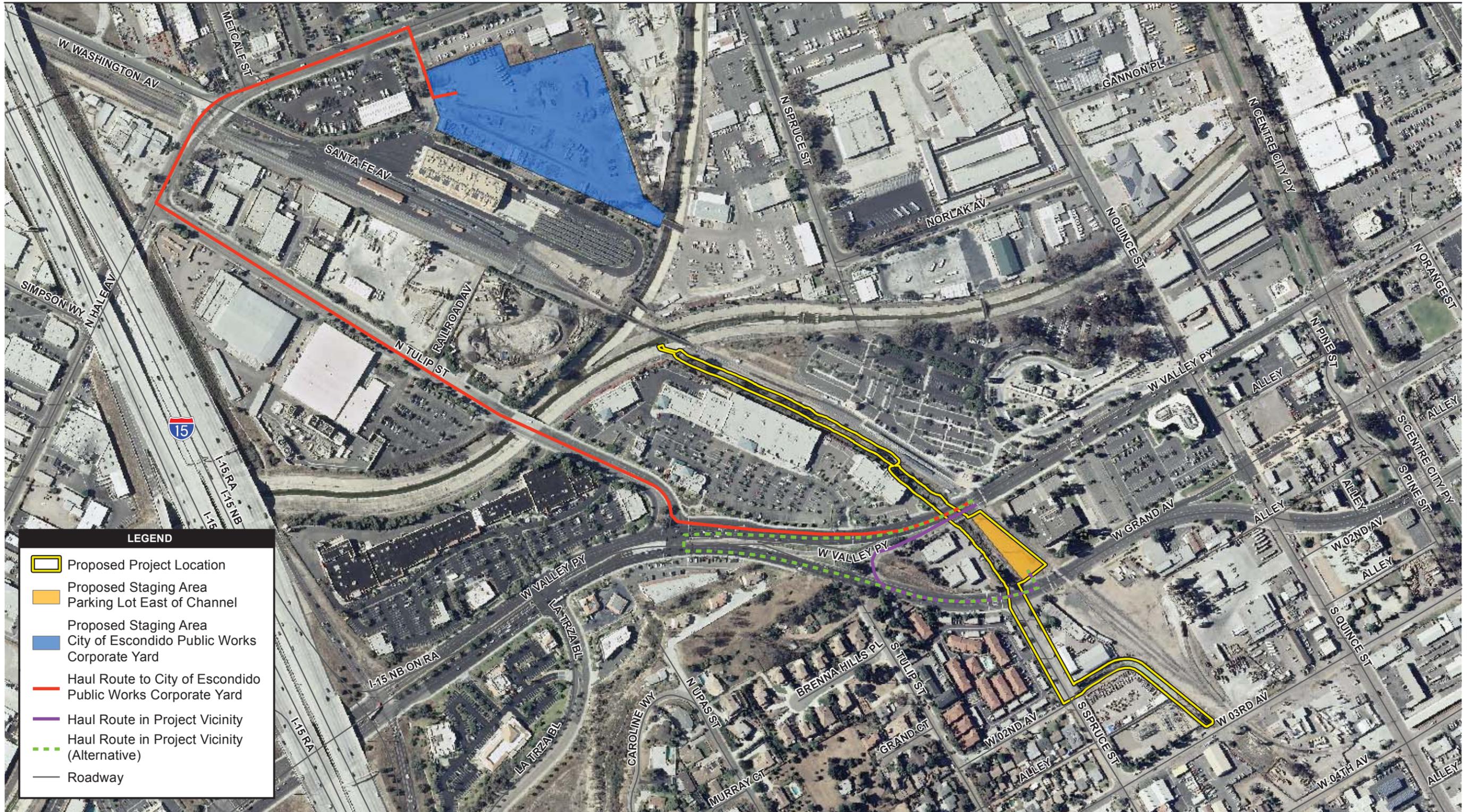
Enclosure: Map  
Response form  
Stamped reply envelope



**Figure 1**  
**Regional Map**

Spruce Street Drainage Improvements





**Figure 2**  
Proposed Project Location

