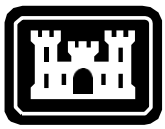
SAN GABRIEL RIVER AND SAN JOSE CREEK CONFLUENCE: SEDIMENT AND VEGETATION REMOVAL

County of Los Angeles, California

DRAFT
ENVIRONMENTAL ASSESSMENT



US Army Corps of Engineers
Los Angeles District

June 2021

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APE	Area of Potential Effect
BMP	Best Management Practice
BO	Biological Opinion
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQ	Center for Environmental Quality
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response Cleanup and Liability Act
EPA	United States Environmental Protection Agency
ER	Engineering Regulation
GDM	General Design Memorandum
GHG	Green House Gas
GSA	U.S. General Services Administration
HTRW	Hazardous, Toxic, Radioactive Waste
I-15	Interstate 15
LACDA	Los Angeles County Drainage Area
LACPW	Los Angeles County Public Works
LADUSACE	U.S. Army Corps of Engineers, Los Angeles District
LARWQCB	Los Angeles Regional Water Quality Control Board
NED	National Economic Development
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
OHWM	Ordinary High Water Mark
OMRRR	Operation, Maintenance, Repair, Replacement, Rehabilitation
PBF	Physical and Biological Features
RWQCB	Regional Water Quality Control Board
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SGVGB	San Gabriel Valley Groundwater Basin
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SWPPP	Stormwater Pollution Prevention Plan
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
WRDA	Water Resources Development Act

1 INTRODUCTION

This environmental assessment (EA) has prepared in compliance with the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code (USC) 4321, et seq.); Council on Environmental Quality (CEQ) regulations implementing the procedural provisions of NEPA (40 Code of Federal Regulations (CFR) parts 1500-1508); and the United States Army Corps of Engineers' (Corps) procedures for implementing NEPA (33 CFR Part 230).

During a routine maintenance inspection in April 2017, significant toe erosion was discovered on the right bank of the San Gabriel River 2b (SGR2b) levee segment which is normally underwater. During the 2018 levee periodic inspection, the levee was further examined for deficiencies. It was determined that the entrance angle of San Jose Creek is 58 degrees, significantly higher than the 15-degree entrance angle requirement for design of a channel confluence. It was also determined that significant shoaling at the confluence of San Jose Creek and San Gabriel River have impinged flows and directed them at the levee embankment. The section of levee was previously repaired and fortified with derrick stone. Despite the placed stone, the levee's embankment is still actively being scoured. Due to this impingement and the active scouring, the levee is being undermined and is at risk of failing.

The SGR2b levee is part of the larger Los Angeles County Drainage Area (LACDA) project. The LACDA is a comprehensive flood-risk management project. Its intended purpose is to provide flood risk reduction to areas susceptible to flooding within Los Angeles County. Significant flooding between 1914 and 1934 emphasized the need for major flood risk management projects in southern California.

A failure of the levee system would increase the risk associated with flooding, as well as, the potential risk of loss of life and property. The EA is necessary to document and evaluate conditions in the project area and the potential impacts of the sediment and vegetation removal on environmental resources.

1.1 PROJECT LOCATION

The proposed San Gabriel River and San Jose Creek Vegetation and Sediment Removal Project is located in the cities of South El Monte and Avocado Heights, Los Angeles County (**Figure 1.1-1**), approximately 11 miles east of downtown Los Angeles, 17 miles upstream of the Pacific Ocean. The drainage area of the San Gabriel River basin drains a total of 689 square miles, and the San Gabriel River originates in the canyons of the southern slopes of the San Gabriel Mountains. The San Jose Creek is an intermittent, tributary stream of the San Gabriel River and is located east of the San Gabriel River watershed.

The area surrounding the project area is a densely populated suburban area within and adjacent to the communities of South El Monte and Avocado Heights. The Pomona Freeway (State Route 60 [SR-60]) and the San Gabriel River Freeway (Interstate 605 [I-605]) intersect south of the project area.

1.2 PROJECT AUTHORITY

Flood Control Act of 1936

The Flood Control Act of 1936 (Pub. L. No. 74-738, § 5 (1936)) authorized Federal civil works flood risk management projects for Los Angeles County, California. The Act authorized construction of flood control structures for LACDA and the improvement of the San Gabriel River for the protection of metropolitan Los Angeles County, California.

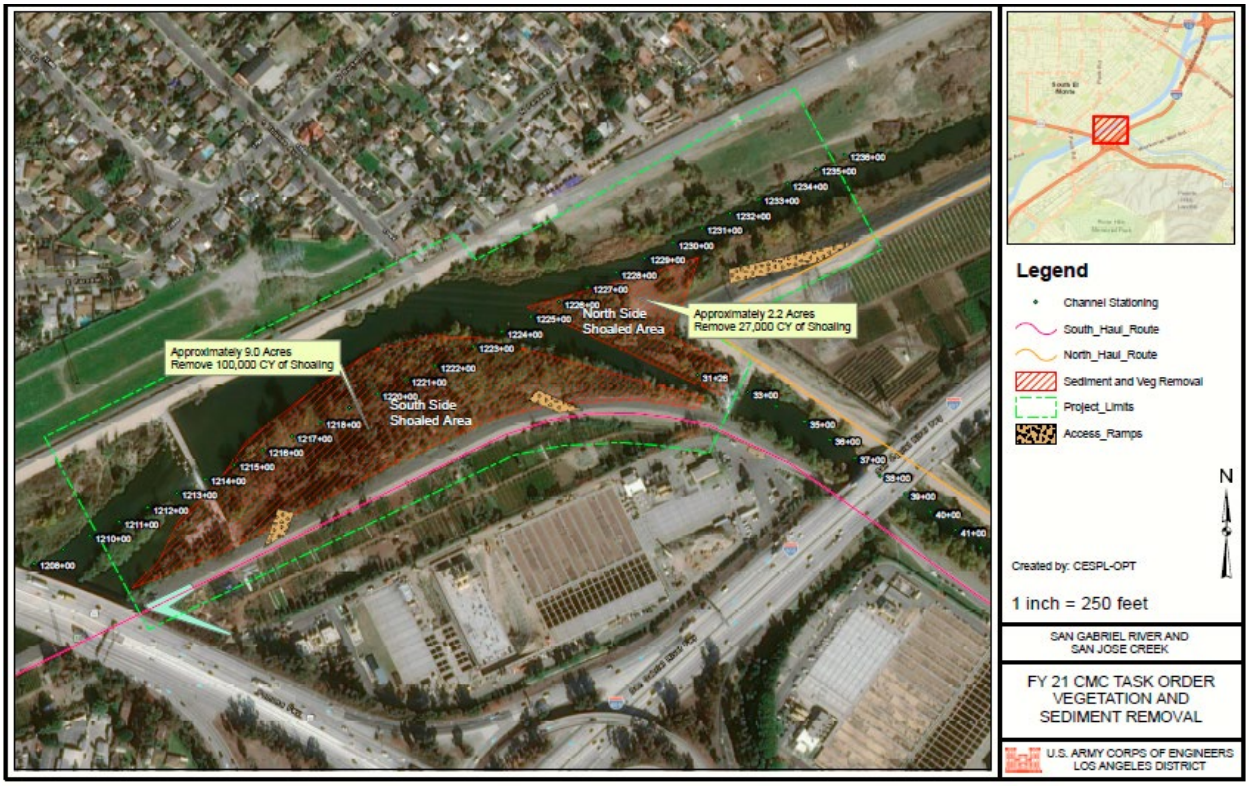

Figure 1.1-1 Project Location. The proposed project boundary for sediment and vegetation removal, staging and access.

1.3 PREVIOUSLY PREPARED DOCUMENTS

Below is a list of the relevant environmental documents that have been completed for the LACDA. Throughout the analysis of this EA, the following documents may be referenced:

- U.S. Army Corps of Engineers, Los Angeles District, Flood Control in the Los Angeles County Drainage Area, 1938
- U.S. Army Corps of Engineers, Los Angeles District, Flood Control in the Los Angeles County Drainage Area, 1939
- U.S. Army Corps of Engineers, Los Angeles District, Operations and Maintenance Manual, Los Angeles County Drainage Area, 1975
- U.S. Army Corps of Engineers, Los Angeles District, Final Report, Review of Water Resources within the Los Angeles County Drainage Area, 1985
- U.S. Army Corps of Engineers, Los Angeles District, Los Angeles County Drainage Area Review, Final Feasibility Report, 1991

1.4 PURPOSE AND NEED

Statement of Need - Impinging river flow is causing scouring of the levee, which leads to increased risk of

levee failure. Without relief of the impinged flows, there is potential for levee failure and increase flood-risk to several homes, businesses, and properties. See **Figure 1.4-1** and **Figure 1.4-2**.

Statement of Purpose - The purpose of the project is to relieve the impinged flows that are actively scouring and damaging the levee and restore the 15-degree entrance angle requirement for design of a channel confluence.

1.5 SCOPE OF ANALYSIS

The Corps' NEPA scope of analysis is the entire temporary construction easement where sediment removal activities will occur (up to the edge of the channel embankment), staging areas, access ramps, and proposed non-native species removal to offset permanent impacts consisting of 20.2 acres of mitigation, of which 2.2 acres will be mitigated at a 1:1 ratio and 9 acres of riparian vegetation will be mitigated at a 2:1 ratio. The area of disturbance for sediment and vegetation removal activities is anticipated to be 11.2 acres in total.

Figure 1.4-1 Excessive sediment and vegetation have directed flows at the levee's embankment increasing risk of failure.

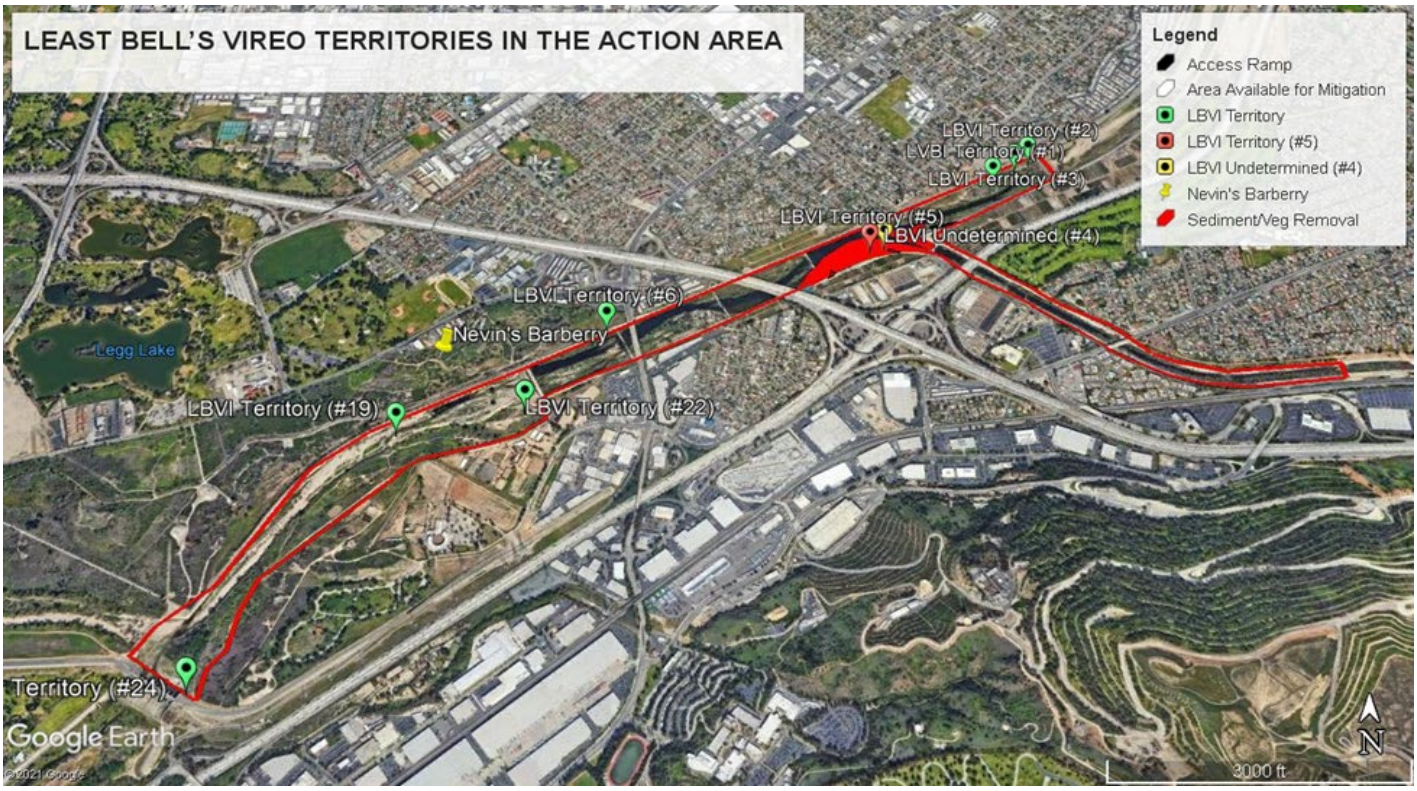

Figure 1.4-2. Proposed Project Area including Sediment and Vegetation Removal Activities, Staging Areas, Access Ramps, and Proposed Non-native Species Removal Mitigation. The Figure also displays Least Bell's Vireo territories within the Project Area.

2 PROPOSED ACTION AND ALTERNATIVES

2.1 PROJECT ALTERNATIVES (ALTERNATIVES CONSIDERED FOR ENVIRONMENTAL ANALYSIS)

Alternatives considered for the operations and maintenance action included additional reinforcement of the SGR2b levee (Alternative 1) which is experiencing significant erosion, the removal of the excess accumulated sediment and vegetation to return the channel to design elevations and angles (Alternative 2-proposed action), and minimal accumulated sediment and vegetation removal to reduce impacts to mature vegetation within the San Gabriel River channel (Alternative 3), and no action (Alternative 4).

Reinforcement of the SGR2b levee with the repair of the derrick stone, Alternative 1, will not reduce or alleviate the impinged flows at the confluence of the San Gabriel River and the San Jose Creek. Sedimentation and shoaling will persist, and erosion will continue. This alternative was rejected from further consideration under NEPA. To minimize impacts within the channel, Alternative 3 was considered. This would consist of only removing a small portion of the accumulated sediment and vegetation, leaving most of the shoaling in place. It was determined this would not bring the entrance angle of San Jose Creek back to the 15-degree entrance angle requirement for design of a channel confluence and was therefore rejected from further consideration under NEPA.

Two alternatives have been carried forward for detail in this EA. These alternatives include the Proposed

Action and the No Action Alternative.

2.1.1 PROPOSED ACTION ALTERNATIVE

The Proposed Action Alternative is described below. Environmental commitments associated with the Proposed Action are described in Section 5 of this EA. Impact evaluation will be based on inclusion of these minimization, avoidance, and offsetting measures.

The Proposed Action would occur within federal, city, and county land at the confluence of the San Gabriel River and San Jose Creek in the cities of South El Monte and Avocado Heights, California. The Proposed Action consists of removing approximately 127,000 cubic yards (cy) of excess accumulated material and 11.2 acres of vegetation as part of operation and maintenance of the channel (**Figure 2.1-1**). The channel in this reach is trapezoidal and comprised of concrete/grouted stone with an earthen invert. Sediment will be excavated to the design elevation of the channel invert across the entire width of the channel between the San Gabriel River/San Jose Creek confluence and the Pomona Freeway (State Route 60). The maintenance footprint is approximately 17.8 acres. The design elevation for the channel invert is the top of the toe.

The depth of the sediment to be removed ranges from 3 to 10 feet. Sediment removal preparation may include dewatering and/or water diversion of the immediate project area to perform the vegetation and accumulated sediment removal. Prior to construction, the work area within waters of the US (WOTUS) would be temporarily dewatered and isolated from nuisance and/or low flows. Water from the dewatering operations would be pumped back into the channel. All dewatering structures would be removed prior to the rainy season or upon completion of construction, whichever occurs first. No structural alterations or modifications of structural elements of the engineered channel would occur.

2.1.1.1 *Staging Areas*

Two staging areas are proposed. One staging area would be located in the southwest corner of the project area, measuring approximately 0.23 acre. A second staging area would be located south of the project area, off of Workman Mill road and along San Jose Creek and would measure approximately 0.16 acre (**Figure 2.1-2**).

Figure 2.1-2 Proposed Staging Areas

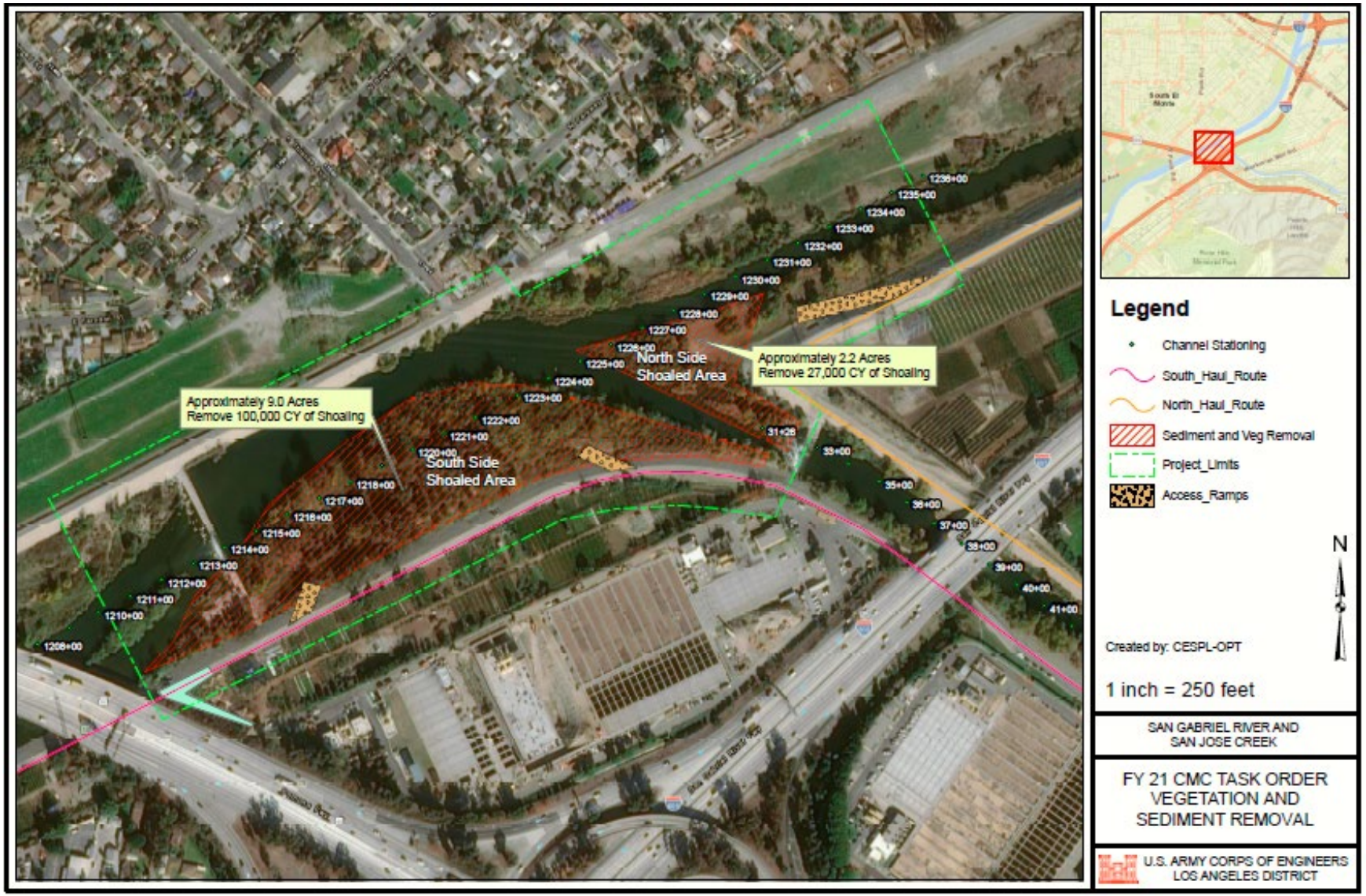

Figure 2.1-1 Project Map of Work Limits- The Proposed Action footprint limits include the Sediment and Veg Removal area, access ramps, and staging areas.

2.1.1.2 *Project Access*

Maintenance-related vehicles would access the site from the Los Angeles County Sanitation District. Up to three temporary access ramps would be constructed to allow access into the channel (See **Figure 2.1-1** for proposed locations). **Figure 2.1-3** shows an example of a temporary access ramp. The temporary access ramps would measure approximately 120 feet long, 15 ft. wide, and 2 ft. high and would be comprised of clean earthen fill and/or excess accumulated material from on-site within the project area. To minimize turbidity, fiber rolls and/or gravel bags may be installed below the ramp during its construction and removal. Prior to construction, the contractor would submit the design of the temporary ramps to the Corps for review and approval. **Figure 2.1-1** shows an example of a potential footprint for the temporary ramps.

Figure 2.1-3 Example of temporary access ramp

2.1.1.3 *Fill Requirements*

Approximately 2000 cy of fill will be required to construct the temporary access ramps. The material would be obtained from excess accumulated sediment from within the channel or project area, or from acceptable commercially available sources. This will be the only potential source of fill material needed for the project.

2.1.1.4 *Haul Routes*

Haul roads and vehicular access roads would be needed during the removal of vegetation and sediment. The haul route would be used to transport equipment, fill material, and other maintenance-related materials from the project area or the staging area.

Once the access ramps are completed, sediment and vegetation removal can begin. For disposal, the haul route would begin at the project site and end at a commercial landfill, American Bin Company, located approximately 32 miles northwest of the project site. Equipment and haul trucks would utilize the temporary ramps constructed for the project and existing roadways.

2.1.1.5 *Disposal Sites*

The Proposed Action would produce organic, inorganic, and unsuitable materials, which must be disposed of in the manner and areas specified below.

Organic materials, trees, shrubs, and abandoned timber structures would be disposed of by hauling to the

American Bin Company, a local commercial site. Disposal of excess materials by burning or burying at the project site would not be permitted. Although it is not anticipated that toxins would be present in the material removed prior to disposal, the accumulated material would undergo testing to determine appropriate disposal techniques. Lay down yards are available if drying and/or sorting is required and facilities in the cities of Pomona or Riverside would be used to dispose of any potentially toxic soils. Inorganic materials would be taken to American Bin Company in Sun Valley, CA, a commercial landfill (**Figure 2.1-4**).

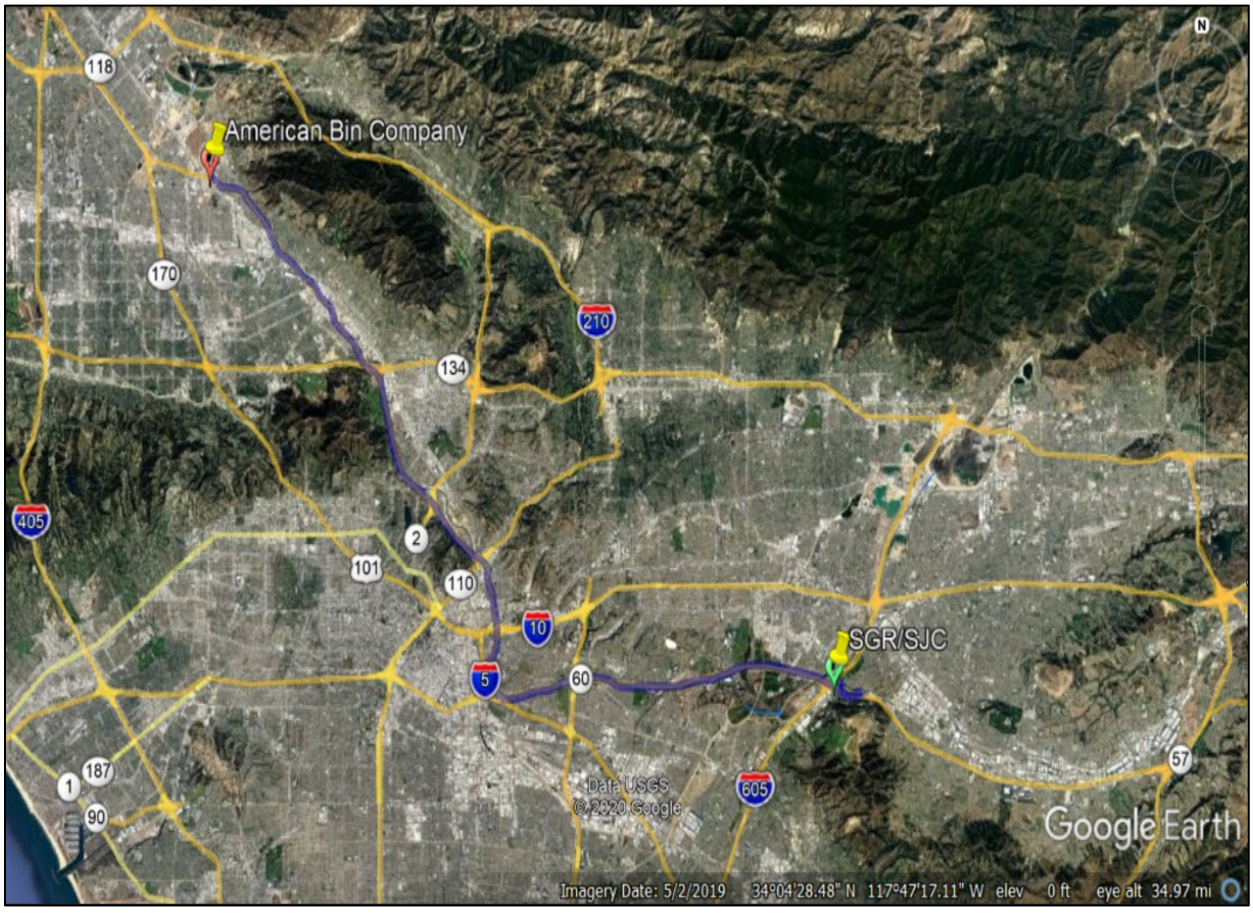

Figure 2.1-4 Location of Commercial Landfill

2.1.1.6 *Equipment*

Equipment would likely include a combination of water trucks, waste trucks, haul trucks, crawler and front-end loaders, dozers, skid-steers, excavators, and pickup trucks.

2.1.1.7 *Project Duration and Phasing*

Maintenance is scheduled to commence in Fall 2021 and finish in Fall 2024. It is possible that the Proposed Action would be constructed in stages, with multiple start dates and maintenance periods for various phases depending on funding, environmental windows, and weather delays. Project phasing may result in an extension of the overall project duration beyond Fall 2024.

Proposed construction hours would be 7:00 a.m. to 7:00 p.m., Monday through Friday, and 8:00 a.m. to 7:00 p.m. on Saturday. Occasional overtime work may be required to maintain the maintenance schedule, but timing would comply with local noise ordinances.

2.1.1.8 *Utilities*

The project area is served by utility and service systems located in Los Angeles County and within the cities of South El Monte and Avocado Heights. A variety of local purveyors in these areas provide and maintain utility and service system facilities associated with electricity, water, stormwater and wastewater, solid waste, and natural gas. No utilities are known to occur with or will be impacted by the project. Prior to maintenance, a DigAlert would be conducted to confirm no underground utilities are located within the project area. Any utilities discovered within the vicinity of project limits would either be relocated or removed prior to or during maintenance or protected in place.

2.1.2 NO ACTION ALTERNATIVE

Under the No Action Alternative, accumulated material from the project area would not be removed. The accumulated material would continue to remain within the channel, conveyance capacity would not be improved, and the impingement of flows would persist. As a result, the SGR2b levee would continue to scour and be undermined, causing an increased potential of failure which may impact safety of life and property.

3 AFFECTED ENVIRONMENT

This chapter describes the existing conditions within the project area for a suite of environmental resources.

3.1 WATER RESOURCES AND HYDROLOGY

The LACDA lies mostly in Los Angeles County, California (**Figure 3.1-1**), although portions lie in Ventura, San Bernardino, and Orange counties. The LACDA watershed is abutted on the east by the Santa Ana River watershed, on the north by the Antelope Valley and Santa Clara River watersheds, and on the west by the Calleguas Creek watershed. The Los Angeles and San Gabriel Rivers drain to the Pacific Ocean to the southwest.

Principal streams in LACDA are the Los Angeles River, which has a drainage area of 824 square miles at the mouth and the San Gabriel River, which has a drainage area of 635 square miles at the mouth. The San Gabriel River is approximately 58 miles long, and its tributaries total about 76 miles in length.

In the mountains, runoff concentrates quickly from the steep slopes; hydrographs show that the stream flow increases rapidly in response to effective rainfall. High rainfall rates, in combination with the effects of shallow surface soils, impervious bedrock, fan-shaped stream systems, steep gradients, and occasional denudation of the area by fire, result in intense debris laden floods. However, flood and debris flows are regulated at existing dams and debris basins. Runoff from urban watersheds is characterized by high flood peaks of short duration that result from high-intensity rainfall on watersheds that have a high percentage of impervious cover. Runoff from single storm events is typically of less than 12-hour duration and is almost always less than 48-hour duration.

The San Gabriel River watershed stretches from the top of the south facing peaks of the San Gabriel Mountains across the San Gabriel Valley to the Pacific Ocean. The drainage divide on the north is formed by the ridge between Little and Big Rock Creeks and the upper San Gabriel River, on the west by the ridge between the Big Tujunga watershed, and the West Fork of the San Gabriel River, and in the east by the ridge between Lytle and San Antonio Creeks and the East Fork of the San Gabriel River. The San Gabriel River flows through the cities of Irwindale, Baldwin Park, El Monte, Pico Rivera, Downey, Bellflower, Hawaiian Gardens, and Long Beach before reaching the Pacific Ocean.

The portion of San Gabriel River that flows through the project area from the northeast is formed by three forks of the River converging in the San Gabriel Mountains; the West Fork, the North Fork, and the East Fork. LACFCD has 11 dams in the drainage area above Whittier Narrows Dam: Eaton Wash Dam, Santa Anita Dam, Cogswell Dam, San Gabriel Dam, Morris Dam, Big Dalton Dam, San Dimas Dam, Puddingstone Diversion Dam, Puddingstone Dam, Live Oak Dam, and Thompson Creek Dam. The priority for operations at LACFCD's Dams is flood risk management, and the second priority is water conservation. LACFCD operates these Reservoirs for both flood risk mitigation and water conservation.

3.1.1 HYDROLOGY

Runoff from the drainage area is characterized by unusually high flood peaks of short duration. Flood hydrographs are typically of less than 24-hour duration and are usually less than 48-hour duration, with inflow rates dropping rapidly between storms.

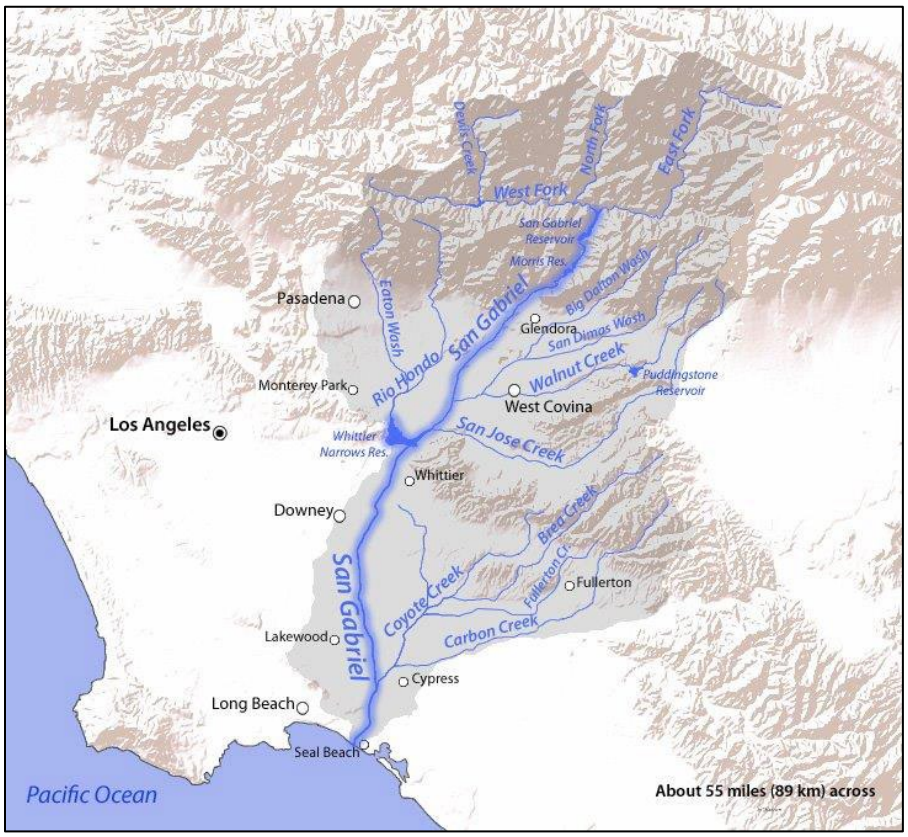

Figure 3.1-1 Location of the San Gabriel River and San Jose Creek

3.1.2 SURFACE WATER QUALITY

Water quality throughout the state of California is protected by the State Water Resources Control Board's water quality objectives. Water quality objectives are designed to protect Beneficial Uses, which determine the degree of water quality protection needed to support current and future human and wildlife utilization. The Los Angeles Regional Water Quality Control Board (LARWQCB), Region 4, has designated Beneficial Uses for streams in the project vicinity as described below:

Municipal (MUN) – Water used for military, municipal, individual water systems, and may include drinking water.

Ground Water Recharge (GWR) – Natural or artificial Ground Water Recharge for future extraction, to balance natural hydrologic processes, and to maintain navigable channels.

Warmwater Habitat (WARM) – Water used for the support of warm water ecosystems for the preservation and maintenance of aquatic habitat and wildlife species (flora and fauna).

Wildlife Habitat (WILD) – Waters that support wildlife habitats that may include, but are not limited to, the preservation and enhancement of vegetation and prey species used by waterfowl and other wildlife.

3.1.3 GROUNDWATER

The project area is located on top of the San Gabriel Valley Groundwater Basin (SGVGB) in eastern Los Angeles County, which includes a portion of the upper Santa Gabriel Valley. The groundwater basin is confined and bounded in the north by the Raymond Fault and the San Gabriel Mountain consolidated basement rocks. To the south and the west the groundwater basin is bounded by consolidated rocks of the Repetto, Merced, and Puente Hills. The Chino and the San Jose fault form the eastern boundary of the groundwater basin.

The SGVGB is 170 square miles and underlies the San Gabriel River floodplain. There are two sub-basins in the SGVGB: the lower San Gabriel Canyon Basin (northernmost) and the San Gabriel Basin (southernmost). In addition to natural infiltration of rainfall and runoff, the SGVGB is recharged with fresh water by the Metropolitan Water District of Southern California (MWD) to Morris Dam and Santa Fe Dam. Groundwater quality is under the jurisdiction of the LARWQCB.

Water quality assessment by the LARWQCB classifies 70 square miles of the SGVGB as "Impaired" and 100 square miles as "Unknown". The quality of water used to recharge the Reservoir is classified as "Good," and the water quality of the upper 42 miles of the San Gabriel River is classified as "Intermediate". Currently, the hydrocarbons (VOCs) and SVOCs constituent group is not listed as a 303(d) impairment for the Reservoir, nor for adjoining drainages.

The SGVGB has been severely impaired due to past and present human activities and as a result has been listed as a Superfund Site by the EPA. Groundwater contaminants identified within SGVGB include trichloroethylene, perchloroethylene, and carbon tetrachloride.

3.1.4 JURISDICTIONAL WATERS AND WETLANDS

A preliminary jurisdictional determination (PJD) of Waters of the U.S. (WOTUS) within the project area. A

PJD may include the delineation limits of all aquatic resources on a parcel, without determining the jurisdictional status of such aquatic resources. Although the Navigable Waters Protection Rule (NWPR) went into effect in June 2020, PJDs are advisory in nature and make no legally binding determination of jurisdiction. Potential WOTUS are shown in **Figure 3.1-2**.

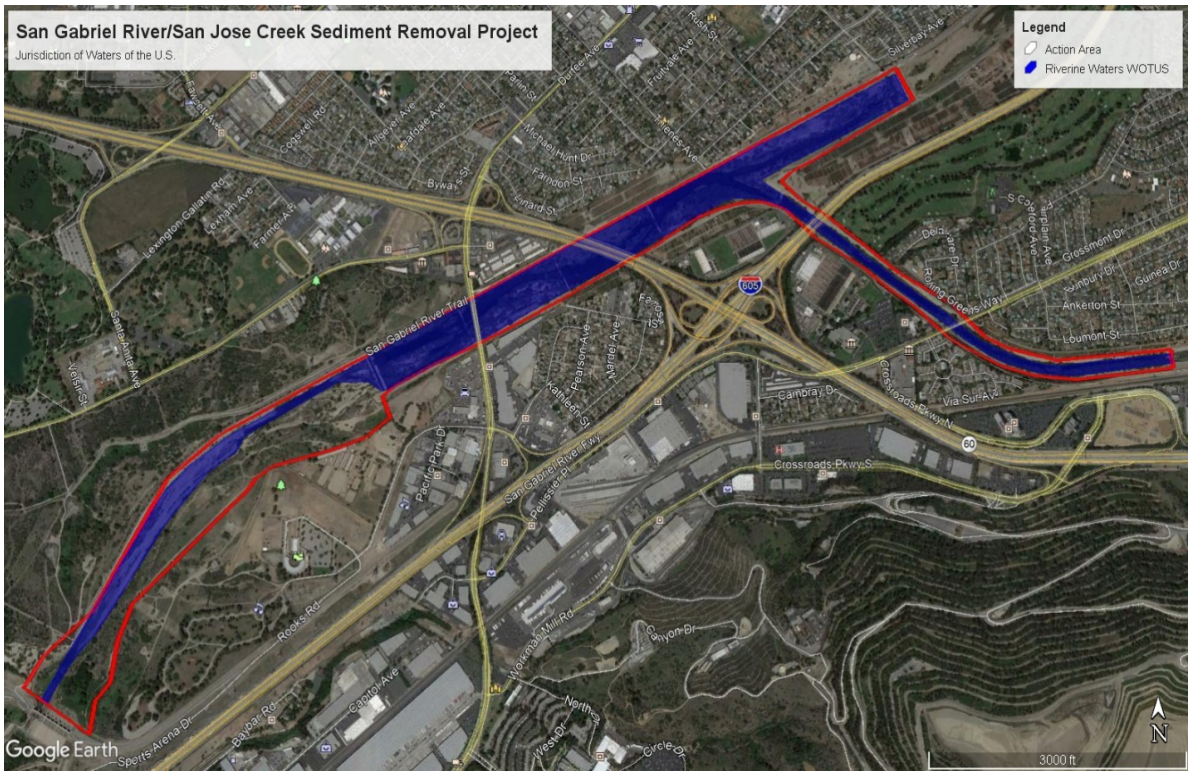

Figure 3.1-2 Jurisdiction of Waters of the U.S**.**

3.2 AIR QUALITY

The project area is located in the South Coast Air Basin (SCAB) of California, an approximate 6,600 square mile (mi^2) area encompassing Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. SCAB is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. Air quality within the project area is governed by the South Coast Air Quality Management District (SCAQMD).

The SCAB lies within the semi-permanent high-pressure zone of the eastern Pacific Ocean. The climate of the region is classified as Mediterranean; the climate is generally characterized by warm, dry summers and mild winters with moderate rainfall. Winds across the study area are an important meteorological parameter as they control both the initial rate of dilution and direction of pollutant dispersion. Prevailing daily winds in the region are from the southwest, flowing on-shore. This pattern is broken five to ten days a year when strong northeasterly winds, commonly known as “Santa Ana Winds,” sweep across the Mojave Desert, over and through the canyons of the San Gabriel and San Bernardino Mountains and over the coastal plains and valleys of southern California. The Santa Ana winds normally peak for 24-48 hours but may persist for longer periods. Strong sustained winds can lift unsecured debris, raise dust, and interfere with the safe operation of machinery. In addition, Santa Ana winds can be the fore bearer of massive wildfires in the mountains and canyons of southern California.

The SCAB's climate and topography are conducive to the formation of ozone (O3). The heaviest concentrations of O3 occur during the summer months when there are warm temperatures, stagnant wind conditions, high solar radiation, and an inversion layer at lower elevations. An inversion layer forms when cooler, denser air is trapped by warmer, lighter air. Sea breezes transport air pollutants to adjacent air basins, such as the Mojave Desert Air Basin and the SSAB. Carbon monoxide (CO) concentrations are highest during the winter, when relatively stagnant air conditions result in an accumulation of this pollutant. Highest CO concentrations are found near heavily traveled and congested roadways. However, in the case of particulate matter, maximum concentrations may occur during high wind events or near man-made ground-disturbing activities, such as vehicular activities on roads and earth moving during maintenance activities.

Air pollutant emissions in the SCAB are generated from stationary, mobile, and natural sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at an identified location and usually are associated with manufacturing and industry. Examples are boilers or combustion equipment that produce electricity or generate heat. Area sources are distributed widely and produce many small emissions. Examples of area sources include residential and commercial water heaters, painting operations, portable generators, lawn mowers, agricultural fields, landfills, and consumer products such as barbeque lighter fluid and hair spray. Maintenance activities that create fugitive dust such as excavation and grading also contribute to area source emissions. Mobile sources refer to emissions from on- and off-road motor vehicles, including tailpipe and evaporative emissions. On-road sources may be operated legally on roadways and highways. Off-road sources include aircraft, trains, and maintenance equipment. Mobile sources account for the majority of the air pollutant emissions within the air basin. Air pollutants also can be generated by the natural environment such as when fine dust particles are pulled off the ground surface and suspended in the air during high winds.

Air monitoring stations closest to project area include: (1) Pico Rivera No. 2 Air Monitoring Station located at 4144 San Gabriel River Parkway in Pico Rivera which monitors and collects data for Ozone (O_3), 8-hour CO, $PM_{2.5}$, and NO_2; (2) Central Los Angeles North Main Street Monitoring Station which monitors and collects data for PM_{10} and SO_2. In general, the ambient air quality measurements from these stations are representative of the air quality in the project vicinity. **Table 3.2-1** summarizes the latest available annual air quality data from 2011, 2012, and 2013. In general, the levels of criteria pollutants within the project vicinity are below NAAQS standards.

Table 3.2-1 Ambient Air Quality at Pico Rivera and Los Angeles North Main Street Monitoring Station

Pollutant	National Standard	2011	2012	2013
O_3 (8 hour)	0.075 ppm	0.061	0.071	0.063
PM_{10} (24 hour)	150 µg/m^3	53	8	57
$PM_{2.5}$ (24 hour)	35 µg/m^3	27	29	29
$PM_{2.5}$ (AAM[b])	15 µg/m^3			
NO_2 (AAM)	0.053 ppm			
CO (1 hour)	35 ppm	2.7	2.7	3.6
CO (8 hour)	9 ppm	2.4	2.2	2.0
SO_2 (AAM)	0.030 ppm			
SO_2** (24 hour)	0.14 ppm	0.002	0.002	0.002
SO_2 (1 hour)	0.075 ppm	0.009	0.005	0.006
Pb (Calendar quarter)	1.5 µg/m^3	*	N/A	*
µg/m^3: micrograms per cubic meter; ppm: parts per million				

N/A indicates that there is no applicable standard
[b] Annual Arithmetic Mean; * Data not reported or Insufficient data available to determine the value
** Los Angeles Monitoring Station, no date for Pico Rivera Station
Source: CARB 2018

3.2.1 NATIONAL AMBIENT AIR QUALITY STANDARDS

To protect the public health and welfare, the Federal government identified a number of criteria air pollutants and established ambient air quality standards through the Federal Clean Air Act for each. The air pollutants for which Federal standards have been promulgated via the National Ambient Air Quality Standards (NAAQS) include ozone (O3), carbon monoxide (CO), suspended particulate matter (PM), sulfur dioxide (SO2), nitrogen dioxide (NO2), and lead (Pb). PM emissions are regulated in two size classes: Particulates up to 10 microns in diameter (PM10) and particulates up to 2.5 microns in diameter (PM2.5).

A region is given the status of “attainment” or “unclassified” if the NAAQS have not been exceeded. A status of "nonattainment" for particular criteria pollutants is assigned if the NAAQS have been exceeded. Once designated as nonattainment, attainment status may be achieved after three years of data showing non-exceedance of the standard. When an area is reclassified from nonattainment to attainment, it is designated as a “maintenance area,” indicating the requirement to establish and enforce a plan to maintain attainment of the standard. Federal attainment status designations for the SCAB are summarized in **Table 3.2-2**.

3.2.1.1 *GENERAL CONFORMITY RULE*

Section 176(c) of the Federal Clean Air Act states that a federal agency cannot issue a permit for, or support an activity within, a nonattainment or maintenance area unless the agency determines it will conform to the most recent U.S. Environmental Protection Agency-approved State Implementation Plan (SIP). Thus, a federal action must not:

- Cause or contribute to any new violation of a NAAQS.
- Increase the frequency or severity of any existing violation.
- Delay the timely attainment of any standard, interim emission reduction, or other milestone.

A conformity determination is required for each criteria pollutant or precursor where the total of direct and indirect emissions of the criteria pollutant or precursor in a nonattainment or maintenance area caused by the federal action would equal or exceed rates specified in 40 C.F.R. 93.153.

Table 3.2-2 NAAQS Attainment Designation and General Conformity Applicability Rates

Pollutant	NAAQS Attainment Designation	Applicable Emission Rates (tons/year)
Ozone (VOC as precursor)	Nonattainment (Extreme)	10
Ozone (NOx as precursor)	Nonattainment (Extreme)	10
Carbon Monoxide (CO)	Maintenance	100
Nitrogen Dioxide (NO2)	Maintenance	100
Particulate Matter (PM10)	Maintenance	100

Particulate Matter (PM2.5)	Nonattainment (Serious)	70
Lead (Pb)	Nonattainment	25
Sources: 40 CFR 93.153(b)(1) and 40 CFR 93.153(b)(2) VOC = Volatile Organic Chemical		

The SCAB is currently in extreme nonattainment for ozone (precursors: VOC or NOx); serious nonattainment for PM2.5; maintenance for PM10; maintenance for NO2; and maintenance for CO; and nonattainment for lead. Based on the present attainment designation for the SCAB, a Federal action would conform to the SIP if annual emissions are below 70 tons of PM2.5, 10 tons of VOC or NOx, 100 tons of CO, NO2 and PM10, and 25 tons of lead.

GREENHOUSE GAS EMISSIONS

Gases that trap heat in the atmosphere are often called greenhouse gases (GHG). GHGs are emitted by natural processes and human activities. Examples of GHGs that are produced both by natural processes and industry include carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O).

There are currently no Federal GHG emission thresholds. Therefore, a GHG significance threshold to assess impacts is not proposed. Rather, in compliance with NEPA implementing regulations, the anticipated emissions are disclosed for each alternative without expressing a judgment as to their significance.

3.3 EARTH RESOURCES

The Los Angeles Basin lies between the east-west-trending Transverse Ranges and northwest-trending Peninsular Ranges Provinces of coastal southern California. This Basin is an elongated, roughly northwest-trending structural basin approximately 50 miles long by 20 miles wide. The Basin is underlain by a sequence of late Quaternary non-marine sediments and late Cretaceous to late Pleistocene age marine sediments and sedimentary rocks, which rest un-conformably on metamorphic and igneous rocks of Jurassic age. The surrounding ranges expose Mesozoic and older igneous basement rocks, and typically characterized by fault-bounded structural blocks. These ranges have been undergoing tectonic uplift since Pleistocene time.

Topography -The Proposed Action is situated in a drainage area formed by the steep San Gabriel Mountains and the upper San Gabriel Valley to the north. Elevations in the drainage area vary from 10,064 ft. at San Antonio Peak (Mt. Baldy) on the northeast boundary of the watershed to the lowest point at the foot of Whittier Narrows Dam, approximately 190.0 ft., to sea level where the San Gabriel River reaches the Pacific Ocean.

Geology - The project area is located in the “Whittier Narrows”, a structurally controlled erosional gap. The Whittier Narrows is a two-mile wide gap in the topographic divide that separates the San Gabriel Valley on the north from the Coastal Plain on the south. Plunging folds from both the Puente and Montebello Hills meet to form a synclinal structure which has been the depositional site for thousands of feet of Tertiary and Quaternary sediments. The gap is filled with approximately 800 ft. of Quaternary marine and non-marine sediments. The lower 650 ft. of these sediments are Lower Pleistocene sediments of the San Pedro Formation. The uppermost aquifer, the Holocene Gaspur Aquifer is comprised of boulders cobbles and gravely sands that were deposited roughly 15,000 to 10,000 years ago. Roughly 7,000 to 5,000 years ago the climate became dryer and warmer and the Rio Hondo and San Gabriel River

became ephemeral steams that meandered across a broad floodplain approximately two miles wide depositing fine-grained sands, silty sands, and silts. Superimposed within the braided deposits are randomly distributed coarse sand and gravel stringers and cut and scour fills that were deposited during flood events that occur during periods of prolonged and heavy rainfall. The thickness of these recent sediments varies from 0 ft. adjacent to the hills, to approximately 120 ft. in the center. The upper 50 ft. of the foundation materials have a basal coarse grained section (the upper portion of the Gaspur) overlain by a variable thickness (generally 30 to 35 ft.) of more heterogeneous sediments that include relatively thinner lenses of fine to coarse-grained sands, silty sands, and silts. These sediments are not horizontally continuous over large areas and are indicative of a stream system that was variously meandering, braiding, eroding and aggrading.

Bedrock of the Puente Hills and the Montebello Hills includes crystalline rocks of Mesozoic and pre-Mesozoic age overlain by sedimentary and volcanic rocks that range in age from the Eocene to Pliocene. The Pliocene Fernando Formation is the bedrock immediately underlying the Pleistocene and Holocene sediments in the Whittier Narrows. Although the recent sediments are over 1,000 ft. thick in the Narrows and over 2,500 ft. thick elsewhere, they are about 800 ft. thick in the area of the Dam.

The Holocene deposits which form most of the foundation under the Whittier Narrows Dam have a basal coarse-grained section of variable thickness which is hydraulically continuous with the somewhat finer grained alluvial which overlays it. The thickness of the Holocene alluvium varies from zero at the margins of the basin to approximately 120 ft. towards the center. The most recent alluvium consists of sand and gravel within layers of partially cemented fine sand, silty sand, sandy silt, silt and clayey silt. Organic matter exists in a few of the silt layers. The fine sand and silt layers are neither widespread nor horizontally continuous, but probably are more lenticular and inter spaced with coarser and more pervious materials. Medium to medium density silty sand, sand, gravelly sand, and sandy gravel are the predominant foundation soils. Well compacted Pleistocene silty sands underlie the Holocene deposits that form the foundation of the right abutment.

Faults and Earthquakes -The Proposed Action lies within the state of California's designated Seismic Zone; these are areas that, based on historic occurrences of liquefaction, or local geological, geotechnical, and groundwater conditions, have the potential for permanent ground displacements (CDCDMG 1999). Tectonic activity in the Los Angeles Basin is dominated by uplift along reverse (thrust) faults and translation along right-lateral strike slip faults. Earthquakes occur on faults exposed at the surface and on buried, or blind, faults that are not exposed at the surface. Two distinct systems of faults characterize the region: northwest-trending strike-slip faults of the Peninsular Ranges geomorphic province; and east-west-trending reverse faults of the Transverse Ranges geomorphic province. These ranges have been undergoing tectonic uplift since Pleistocene time.

Several major property-damaging earthquakes have occurred along faults in the Los Angeles region in the last 45 years. The most recent include the 1971 ML 6.7 San Fernando earthquake that resulted in significant damage across the northern San Fernando Valley; the October 1987 Mw 5.9 Whittier Narrows earthquake that caused $358 million in property damage; the 1992 Landers Mw 7.3 earthquake in the Mojave Desert, the largest earthquake to strike the contiguous United States in the last 50 years; and the 1994 Mw 6.7 Northridge earthquake that caused about $20 billion in property damage.

3.4 BIOLOGICAL RESOURCES

This section includes information on biological resources, including descriptions of plant and animal

species, natural communities, and special- status species that have been observed or have the potential to occur within the project area. This discussion is based on relevant resources and agency materials and updated information obtained from recent surveys, literature reviews, and coordination with regulatory agencies and technical experts. Detailed analysis of this section may be found in the attached Biological Assessment, Appendix A.

The habitat was surveyed by biologists from the Corps and USGS to document the presence and locations of biological resources and sensitive species. Database and literature review included a review of the California Natural Diversity Database (CNDDB), and various listed and sensitive species lists generated by the California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service (USFWS), and California Native Plant Society (CNPS). This section summarizes results from database searches and field surveys to present an updated description of the existing conditions.

3.4.1 VEGETATION COMMUNITIES AND COVER TYPES

Vegetation baseline surveys were conducted in spring and fall of 2019 within the scope of analysis (Figures 3.4-1, 3.4-2, 3.4-3). The native and disturbed vegetation communities are interspersed; therefore, breaks in community type are determined based on dominant species type and professional judgment of the biologist surveying. There are a total of 21 vegetation and cover types within the scope of analysis. The vegetation types were referenced to the Manual of California Vegetation (2021, CNPS), and the map was created using ArcGIS with recent base map imagery. The riparian plant communities in the project scope of analysis are considered sensitive habitat types for their part in the ecological function of the watershed. While non-native habitats are not protected, these communities still provide important foraging and refugia habitat for a variety of sensitive plants including Nevin's barberry (*Berberis nevinii*), San Gabriel Mountains dudleya (*Dudleya densiflora*) Slender-horned spineflower (*Dodecahema leptoceras*), and Braunton's milk vetch (*Astragalus brauntonii*). There will not be any direct or indirect impacts on native vegetation outside of the project scope of analysis.

Vegetation types within the San Gabriel River watershed include, but are not limited to, live oak woodlands, coastal sage scrub, riparian forests/woodlands, and urban non-native landscaping. The majority of wildlife-suitable habitat is located within the San Gabriel Mountains in the upper watershed, and within the following areas of the lower watershed: Montebello Hills, Puente Hills, Santa Fe Dam Project Area, Whittier Narrows Dam Project Area, Rio Hondo channel, San Gabriel River, and narrow riparian corridors and flood control channels that provide limited habitat connectivity between these areas (Morris et al. 2012).

Common vegetation types within the San Gabriel River watershed include: Black Willow Thickets, Arroyo Willow Thickets, Mulefat Thickets, Giant Reed Breaks, Non-Native Woodland, Developed/Barren, Annual brome grassland, Sandbar Willow Thickets, Smartweed – cocklebur, Eucalyptus Semi-Natural Stands, Cattail Marshes, Scalebroom scrub, Poison hemlock patches, Perennial pepperweed patches, Coast prickly pear cactus, California buckwheat scrub, Box-elder forest, and Blue Elderberry. Details regarding species occurring within these vegetation types and typical occurrence within the watershed may be found in the attached Biological Assessment, Appendix A. These vegetation types within the project scope of analysis are shown below in Figures 3.4-1, 3.4-2 and 3.4-3.

3.4.1.1 *SPECIAL-STATUS PLANT SPECIES*

A complete list of the special-status plant communities with the potential to occur in the project area is

provided in the attached Biological Assessment, Appendix A. To ensure the most up-to-date data was obtained, CNDDB and CNPS queries were run in January 2021 (CDFW 2020). In addition, species lists were obtained from the USFWS Information for Planning and Consultation (IPaC) website. Aerial imagery was also reviewed at varying scales on Google Earth (2021) to determine the potential vegetation communities and land cover types that may be encountered.

Special-status plants considered in this EA include species listed as threatened or endangered under the Federal or California Endangered Species Acts, species proposed for listing, and other unique and rare species identified by the USFWS, CDFW, or local jurisdictions. The CNPS listing is sanctioned by CDFW and serves as the list of candidate plant species for state-listing. CNPS's California Rare Plant Ranks (CRPR) (formerly CNPS List) 1B and 2 species are considered eligible for state -listing as endangered or threatened. Species were assessed for their potential to occur within the proposed project area, and species that were determined not likely to occur are not discussed further in this document.

Federal- and State-Listed Plant Species- Four federal- and/or state-listed species were identified. These species are: Nevin's barberry (*Berberis nevinii*), San Gabriel Mountains dudleya (*Dudleya densiflora*) Slender-horned spineflower (*Dodecahema leptoceras*), Braunton's milk vetch (*Astragalus brauntonii*). Of these, Nevin's barberry has the potential to occur.

Nevin's barberry (Berberis nevinii)
Known occurrences of Nevin's barberry were observed within one mile from the project boundary at the Whittier Narrows Nature Center. Field surveys indicated three well established plants, and one plant with inhibited growth due to the overgrowth of surrounding vegetation. Two of the plants exhibited signs of reproduction in the form of fruits with seeds, and two of the plants did not have reproductive growth. The three plants with adequate exposure to sunlight were approximately 10 feet tall, and the shaded plant was approximately 4 feet tall with vegetative growth limited to the branches that extended out of the dense understory. None of the plants had nearby seedlings that would demonstrate active recruitment. Due to increased homeless encampments in the same area there is a high probability that limited extant population of Nevin's barberry may be compromised. Nevin's barberry is not found inside the project area.

Sensitive Species
Federal or State- listed plant species were not observed during sensitive species surveys conducted in 2019. Therefore, they are presumed to be absent from the project area and are not discussed further in this document.

California Rare Plant Ranked Species, and MSHCP-Covered Species
Thirteen (13) special-status plants have a potential to occur in the project area based on suitable habitat, soil types, and known ranges. These include:

- Brand's star phacelia (*Phacelia stellaris*) - Low
- California muhly (*Muhlenbergia californica*) - Moderate
- California satintail (*Imperata brevifolia*) - Low
- lucky morning-glory (*Calystegia felix*) – Low
- Many-stemmed dudleya (*Dudleya multicaulis*) – Low
- Parry's spineflower (*Chorizanthe parryi var. parryi*) – Moderate
- Peruvian dodder (*Cuscuta obtusiflora var. glandulosa*) – Moderate
- Plummer's mariposa-lily (*Calochortus plummerae*) - Moderate

- Prostrate vernal pool navarretia (*Navarretia prostrata*) - Low
- San Gabriel River dudleya (*Dudleya cymose ssp. Crebrifolia*) - Low
- Smooth tarplant (*Centromadia pungens ssp. Laevis*) – low
- So. California black walnut (*Juglans californica var. californica*) - High
- White rabbit-tobacco (*Pseudognaphalium leucocephalum*) - Moderate

A reconnaissance survey was conducted Fall 2020 by Corps Biologist Jenni Snibbe and Jon Rishi. Survey results include a plant species observed list. The reconnaissance survey was conducted on foot within accessible portions of the project area. In areas that were not accessible at the time of the survey, visual observations were made from the nearest vantage points. No Federal- or State- listed or rare species were identified during the surveys. Appendix A provides a list of the plant species observed within the project area as well as details regarding the above listed special-status plants.

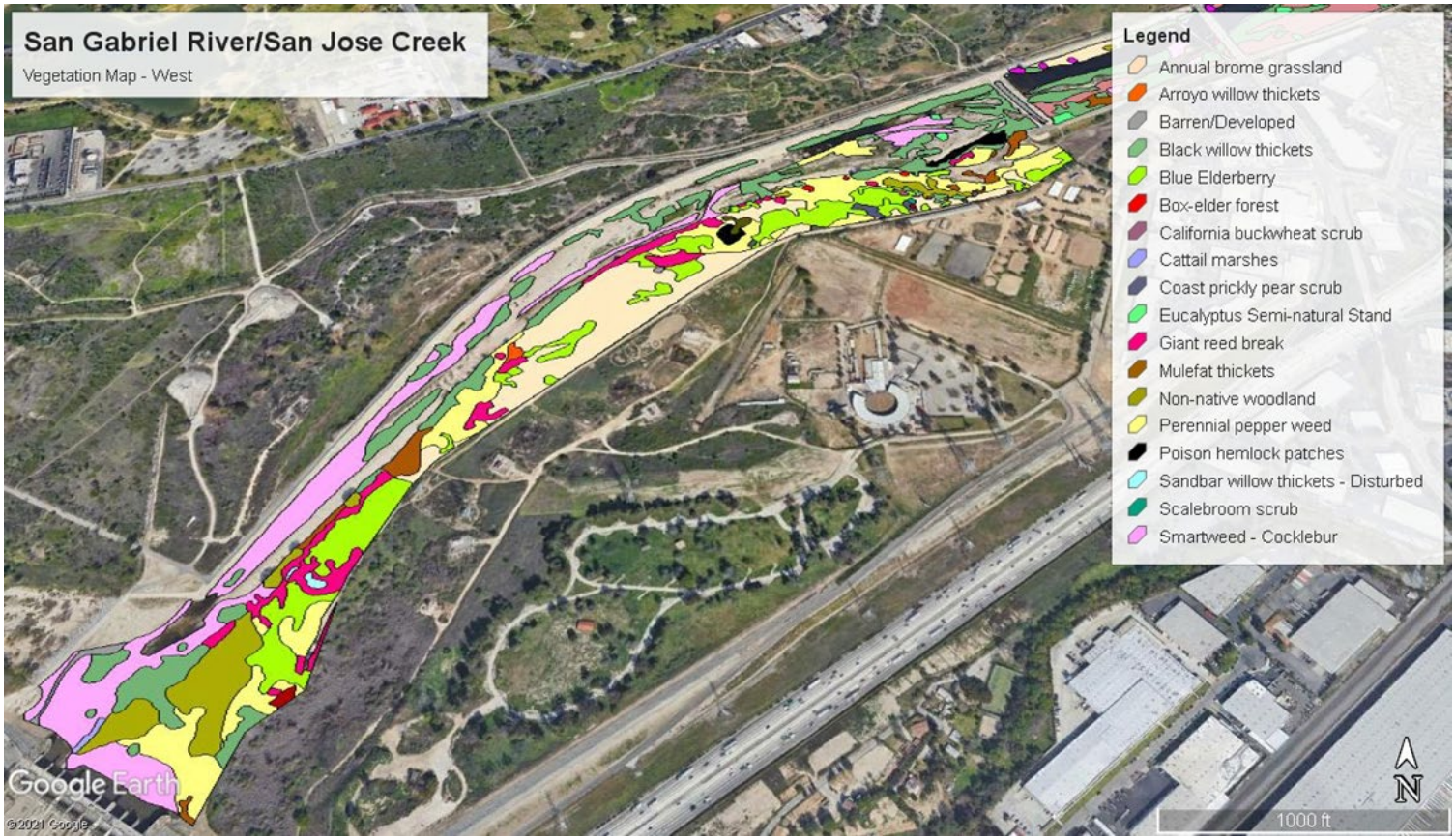

Figure 3.4-1 Vegetation Communities Map 1

Figure 3.4-2 Vegetation Communities Map 2

Figure 3.4-2 Vegetation Communities Map 3

3.4.2 WILDLIFE

Riparian communities support diverse assemblages of wildlife because they provide access to water, shade, and cover. The San Gabriel River supports extensive riparian and aquatic habitat. Many bird species are wholly, or at least partially, dependent on riparian plant communities (Warner et.al., 1984). Riparian vegetation provides necessary foraging and nesting habitat for many bird species (Rottenborn 1999, Bolger et al 1997); even relatively disturbed areas that are adjacent to existing riparian vegetation can be important to a suite of common and sensitive wildlife. The riparian community types that occur throughout the watershed provide habitat for a variety of resident and migratory wildlife species including several special-status species.

Due to development surrounding the majority of the project, the San Gabriel River's riparian and upland habitats function as a movement corridor and/or dispersal habitat for a number of wildlife species. Continuous riparian riverine habitat is upstream and downstream from the project alignment, increasing the likelihood of wildlife presence within and adjacent to the project area. Some species, such as mourning dove and northern mockingbird, are positively correlated with urbanization, but most species are negatively correlated with urbanization and prefer to inhabit undeveloped spaces. Factors associated with urbanization that are expected to contribute to lower species richness and densities in riparian zones near developed areas include an increase in the number of domestic cats (Rottenborn 1997), an increase in people recreating in riparian areas, noise, collisions on roads, and movement of people and domestic animals (Rottenborn 1999). The frequency of human use in the project area included trail usage both equestrian and pedestrian and homeless encampments in the River floodplain and may adversely affect wildlife use to some degree.

Appendix A, Biological Assessment, includes all wildlife species listed in the state and federal database searches. Only those species that have potential to occur and are federally-or state-listed are discussed in further detail in this document.

SPECIAL-STATUS WILDLIFE SPECIES

Federally/State Listed and California Fully Protected Species- Special-status wildlife for this EA include those listed as threatened or endangered under the federal or California Endangered Species Acts, species proposed for listing, species of special concern and other species which have been identified by the USFWS, CDFW. Each of these species was assessed for its potential to occur within the project area. Updated survey efforts, occurrence information, distribution maps, literature, and correspondence with local experts have been utilized to refine the list of special-status species either present or with a potential to occur in the proposed project area.

Habitat within or in the vicinity of the proposed project area has the potential to support several Federally-listed and State-protected wildlife species, and there is designated critical habitat for species within the project scope of analysis. Federally-listed species or their critical habitat that may be affected include least Bell's vireo (nesting territories) and California gnatcatcher (known foraging habitat and designated critical habitat). Other listed species and, or their designated critical habitat that could potentially occur in the vicinity but are not expected to be affected include southwestern willow flycatcher, Western yellow-billed cuckoo, Swainson's hawk, foothill yellow legged frog, and the Santa Ana sucker. The arroyo southwestern toad was listed as Endangered in 1995; however, it has never been recorded in the project area. In addition, several large raptors including, bald eagle, and golden eagle have the potential to occur in the project area.

Least Bell's Vireo (Vireo bellii pusillus; LBVI)

The LBVI is a federal and state endangered songbird that regularly nests within the project area. LBVI is one of four subspecies of Bell's vireo recognized by the American Ornithologist's Union (AOU 1957). It is the western-most subspecies, breeding entirely within California and northern Baja California. LBVI was listed as a federally endangered species in 1986 (51 FR 16474). Critical habitat for the species was designated in 1994 (59 FR 4845); however, none occurred within the project area at that time.

LBVI are migratory and are only present in southern California from approximately mid-March through mid-September. The species breeds in dense, shrubby riparian vegetation in the vicinity of water or dry-river bottoms below 2,000 feet, often dominated by willows (Salix spp.), mulefat (Baccharis salicifolia) and California wild rose (Rosa californica), but may also utilize various shrubs, trees, and vines (Franzreb 1989). Nests are typically found in low-lying, dense vegetation located in the riparian zones, most frequently in 5- to 10-year-old stands. LBVI generally prefer semi-complex riparian habitats that have understory scrub and ample vertical complexity; riparian areas with no understory are less likely to be used. In California, a dense shrub layer associated with riparian habitat was found to be the most critical structural component of occupied LBVI habitat (Kus 1998; Kus et al. 2010). In riverine habitats of Southern California, this species typically utilizes territory sizes of about two (2) acres on average (Kus et al. 2010). LBVI are extremely site-tenacious and return to the same nesting habitat every year (Salata 1983).

The project area does not contain designated critical habitat for the LBVI. Physical and biological features that support LBVI life history requirements identified in the listing of designated critical habitat are general in nature (USFWS 1994). However, the project area supports limited but typical riparian habitat that is utilized by LBVI for nesting. See **Figure 1.4-2**.

Survey Methods and Analysis for LBVI

The Corps has typically conducted or contracted LBVI annual presence-absence surveys in the Whittier Narrows Reservoir (Reservoir) on an annual basis since 2014 and has observed the species each survey year. These annual surveys typically consisted of eight site visits conducted from early April through late July. GPS locations of vocalizing male LBVIs are recorded on each day along a standard survey route within the Reservoir. Each vocalizing male recorded is assumed to represent an individual territory.

All known observed locations of LBVI within the Reservoir were compiled and exported as ArcGIS point shapefiles. LBVI location were acquired in 2014, 2015, and 2019 only. All point locations were overlaid on a topographic Light Detection and Ranging (LiDAR) raster to extract the ground elevation of each bird observation. The LiDAR raster was provided to the Corps in 2016 by the Cold Regions Research and Engineering Laboratory.

Survey Results

The results of the 2014-15 Corps LBVI surveys (all observations in 2014 and 2015) and the results of the 2019 USGS protocol survey (territory centers in 2019) are presented herein (Figures 3.4.2-1, 3.4.2-2 and **Figure 1.4-2**). No surveys were conducted in 2018, and the 2016-17 LBVI data were not available at the time of this analysis.

In 2019, USGS biologists observed 32 LBVI territories in the Reservoir. Nine (9) LVBI territories were observed with the project area, of which four (4) LBVI pairs were confirmed, three (3) possible pairs were observed but considered "Undetermined" as it was not confirmed that the male was paired, and two (2) transient as they were not detected on two or more consecutive surveys. Locations of all detected LBVI territories within the sediment/vegetation removal area are shown in **Figure 1.4-2.**

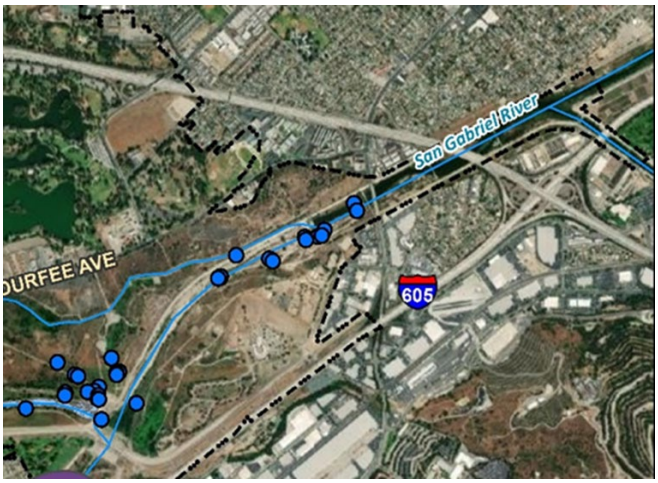

Figure 3.4.2-2 LBVI locations 2015 Surveys

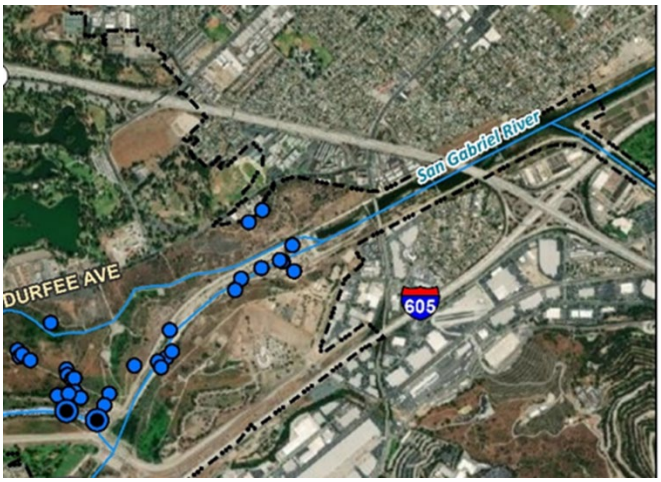

Figure 3.4.2-3 LBVI locations 2014 Surveys

California Gnatcatcher (CAGN)

The coastal subspecies of the CAGN is a small gray songbird has been observed utilizing areas of marginal habitat within the inundation areas of the Reservoir. The species was listed as threatened by the USFWS in 1993 (USFWS 1993). Critical habitat for this subspecies was designated by the USFWS in 2000. CAGN are monogamous and stay paired throughout their lifetime, and the pair establishes a territory and stays within the same territory year-round. The breeding season extends from approximately February 1 through August 31, with peak nesting activity occurring from mid-March through mid-May. The incubation period takes 14 days and the young fledge at eight to 13 days. The young are dependent on their parents for up to three or four weeks; however, fledglings may continue to associate with their parents for several months (USFWS 1997). Once juveniles reach maturity, they are flushed out of the territory and forced to disperse by parents. CAGN offspring may disperse to adjacent suitable habitat to pair and establish new territories.

CAGN are year-round residents of southern California. CAGN generally prefer to forage, breed, and nest in sage scrub habitat, which is a broad category of upland vegetation dominated by California sagebrush, California buckwheat, white sage (*Salvia apiana*), and black sage (*Salvia mellifera*) (Beyers and Wirtz 1997). Historically, CAGN have been described as restricted to coastal sage scrub habitat. However, it is now known that CAGN may also use disturbed mixed scrub, chaparral, grassland, and riparian habitats in proximity to coastal sage scrub for dispersal and foraging (Atwood and Bontrager 2020). CAGN adults of both sexes, as well as juveniles, have been observed foraging in non-coastal sage scrub for extended periods just subsequent to nesting, and diurnal shifts in CAGN habitat use from coastal sage to non-coastal sage habitats have also been observed (Campbell et al. 1998). Patterns of CAGN use of non-coastal sage scrub habitat appears to occur for a variety of reasons, often driven by site-specific dynamics, and may occur year-round. While CAGN are known to make significant use of non-coastal sage scrub habitats, CAGN are still not thought to regularly nest independent of coastal sage scrub (Campbell et al. 1998).

CAGN DCH

Designated critical habitat (DCH) for the species contains one or more Physical or Biological Features (PBFs) that are essential for a species' primary biological needs of foraging, nesting, rearing of young, intra-specific communication, roosting, dispersal, genetic exchange, or sheltering (Atwood 1990). For CAGN DCH, there are two defined PBFs:

1. Dynamic and successional sage scrub habitats: Venturan coastal sage scrub, Diegan coastal sage scrub, Riversidean sage scrub, maritime succulent scrub, Riversidean alluvial fan scrub, southern coastal bluff scrub, and coastal sage-chaparral scrub in Ventura, Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties that provides space for individual and population growth, normal behavior, breeding, reproduction, nesting, dispersal and foraging; and

2. Non-sage scrub habitats such as chapparal, grassland, riparian areas, in proximity to sage scrub habitat described for PBF 1 above that provide space for dispersal, foraging and nesting.

Figure 3.4.2-4 CAGN Location 2019 Survey and Designated Critical Habitat 1

CAGN Survey Results

CAGN location surveys were only performed in 2019. USGS biologists observed six (6) CAGN in the Reservoir in 2019. Of the 6 observed two (2) juvenile territories were observed dispersing within the project area. One location juvenile CAGN were observed multiple times with two to three independent juveniles foraging and interacting with one another and another location single juvenile was observed quickly dispersing through disturbed riparian scrub habitat within a few hundred feet of the project area. Between 2019 and 2021, Corps biologists made additional observations in the Reservoir. CAGN have been observed along the San Gabriel Blvd corridor, as well as along Lincoln Ave and in the vicinity of the visitor's center. CAGN likely utilize any portion of this area where suitable habitat is found. Outside of the single nest discovered in 2020 near Lincoln Ave, observations have been limited to foraging and dispersal. However, CAGN may attempt to nest in other areas of suitable habitat in this corridor in the future.

Due to the paucity of focused survey data, information available from the public birding portal eBird was also reviewed within the project area. Based on a review of the observation data and notes in eBird, CAGN observations were consistent with the patterns described above. CAGN have frequently been reported using habitat along the Lincoln Ave corridor. CAGN usage of the project area does not appear to be seasonally limited, as observations from nearly every month of the year have been reported in eBird.

Southwestern Willow Flycatcher (Empidonax traillii extimus)

The southwestern willow flycatcher (SWFL) is a federally- and state-listed endangered species. It is a riparian obligate that is present in the United States only during the summer months. The historic breeding

range of the species once included southern California, much of Arizona and New Mexico, western Texas, southwestern Colorado, southern Nevada and Utah, and northern portions of Sonora and Baja California, Mexico (Unitt, 1987). Currently, breeding is only known from southern California, extreme southern Nevada, Arizona, New Mexico, and western Texas (Hubbard, 1987; Unitt, 1987; Browning, 1993; McKernan and Braden, 1998; Sedgwick, 2000). This subspecies typically breeds within dense tree or shrubby riparian vegetation that is equal to or greater than 10 feet tall (Allison et al. 2003). Areas within the floodplain with more mature and dense riparian vegetation could be potentially suitable habitat for this species, though unlikely available near the project area. The San Gabriel Watershed has historically harbored the species in small numbers.

Several factors contribute to the limited potential for willow flycatcher breeding and nesting activities, including the narrow breadth of the riparian corridor through the area, patchiness of optimal breeding habitat, narrow or absent buffer, and proximity to human development. However, the nearby (historical) presence of southwestern willow flycatchers makes the project area a potential location for transient use, including more focused use for foraging and/or dispersal.

Surveys for SWFL were conducted by USGS during the 2019 nesting season. No individuals or breeding pairs were detected. However, one (1) migratory individual was documented within the San Gabriel River watershed in 2019, although exact locations were not documented (USGS 2019). Although surveys did not detect the species in the area, suitable habitat is present. Therefore, there is a low potential for this species to occur.

Western Yellow-billed Cuckoo (Coccyzus americanus occidentalis)

The western yellow-billed cuckoo is federally-listed as threatened and state-listed as endangered. It inhabits extensive riparian woodlands, especially those dominated by cottonwood and willow. It is a very rare and localized summer resident in California with only a few breeding stations for this species in the state are currently known. Historically pairs have been occasionally observed in the Reservoir. No western yellow-billed cuckoos have been observed in the project area. Marginally suitable habitat is present within and adjacent to the project area. Critical habitat for the western yellow-billed cuckoo was proposed in 2014 (USFWS 2014). Presently, the USFWS revised critical habitat for the species on February 27, 2021 which does not include the project area. Therefore, no critical habitat is within the project area and as the species hasn't been observed is several years. Surveys in 2019 did not detect the species; therefore, the yellow-billed cuckoo is considered absent from the project area and is not discussed further in this document.

Santa Ana Sucker (Catostomus santaanae)

The Santa Ana sucker is federally threatened, a California species of special concern. The Santa Ana sucker historically occurred in small, shallow, low-elevation streams in the Los Angeles, San Gabriel, and Santa Ana River systems (Swift et al., 1993). Prefers major cismontane stream systems in Southern California including the San Gabriel River, formerly below 3000 ft. elevation. They also historically occurred in the upper Santa Ana River, on Cajon and City Creeks in the foothills of the San Bernardino Mountains, and in Santiago Creek in the foothills of the Santa Ana Mountains (Moyle, 1995). Currently, the Santa Ana sucker is restricted to 3 noncontiguous populations: the lower Big Tujunga Creek, the East, West and North Forks of the San Gabriel River and the lower and middle Santa Ana River (USFWS 2000, 2010). This species is known from portions of the San Gabriel River where suitable habitat occurs and could potentially be present during times of heavy flows if washed downstream from occupied habitat. There is a low potential for this species to occur in the project area.

Critical habitat was re-designated for the species in 2010. No designated critical habitat for the Santa Ana

sucker exists in the project area. There is a low potential for this species to occur in the project area.

Foothill yellow-legged Frog (Rana boylii; FYLF)
The FYLF was listed by the CDFW as Endangered in Southern California, where it is absent from most of its historic range. The FYLF is assumed extirpated in this location, there is low potential for the species to occur within the project area (CNDDB 2021).

Swainson's Hawk (Buteo swainsoni)
The Swainson's hawk is listed as State threatened. Swainson's hawk inhabits grasslands, sage-steppe plains, and agricultural regions of western North America during the breeding season, and winters in grassland and agricultural regions from Central Mexico to southern South America (England, 1997; Woodbridge, 1995). This species occurs in southern California as a rare to uncommon transient with breeding mostly confined to valleys in the northern interior of the state. Along the coast, the Swainson's hawk is a rare spring and fall migrant. Nesting habitat was present in the project area, but they have not nesting in the region in recent years and are not expected to in the future. There is a low potential for this species to occur in the project area.

Bank swallow (Riparia riparia)
The Bank swallow is listed as State threatened and is generally found near water, both breeding and in migration. Preferred habitats include riverbanks, creeks seashores, and lakes. This species is relatively common within riparian corridors. There is a moderate potential for this species to occur in the project area. One of the primary reasons for the decline of this species is the loss of habitat. Numbers have declined statewide; it is now absent as a breeding bird in southern California.

Bank Swallow arrive on their breeding grounds in California beginning in late March and early April, and the bulk of breeding arrives in late April and early May. Birds will vacate their breeding grounds immediately after the juveniles start to disperse from their colonies in late June and early July. Although surveys did not detect the species in the area, suitable habitat is present. There is a moderate potential for this species to occur in the project area.

California State Fully Protected Species

Arroyo Chub
The arroyo chub is a CDFW Species of Special Concern. This species occurs within the coastal streams of Ventura, Los Angeles, Orange and San Diego Counties. It is currently only present in abundant numbers only along the West Fork of the San Gabriel River in Los Angeles County. This species is known from Corona North USGS quad in isolated sections of the Santa Ana River from Riverside and San Bernardino county line downstream to the Prado Dam (Swift, 2001). As the project area is outside of the main channel of the Santa Ana River, there is low potential for the species to occur within the project area.

Coast Range newt
The Coast Range newt is a CDFW Species of Special Concern. They are the only Newts in Southern California. This species was not observed during recent surveys. However, there is a low potential for this species to occur in the project area.

Coast Horned Lizard
The coast horned lizard is a CDFW Species of Special Concern. The coast horned lizard's historic range extended from the Transverse Ranges in Kern, Los Angeles, Santa Barbara, and Ventura Counties south

through the Peninsular Ranges of southern California and into Baja California, Mexico as far south as San Vicente (Jennings and Hayes, 1994). It is surface active primarily from April to July. This species spends a considerable amount of time basking, either with the body buried and head exposed, or with the entire body oriented to maximize exposure to the sun. This species has been reported from the general region surrounding the project area. The project area supports some suitable habitat and is within the known geographic distribution for this species.

Two-striped Garter Snake

The two-striped garter snake is a CDFW Species of Special Concern. Two-striped garter snake occurs along a continuous range from northern Monterey County south through the South Coast and Peninsular Ranges to Baja California. Isolated populations also occur through southern Baja California, Catalina Island, and desert regions along the Mojave and Whitewater Rivers in San Bernardino and Riverside Counties, respectively (Jennings and Hayes, 1994). Although this species was not identified during surveys, the project area is within the known geographic range of the species and suitable habitat occurs. This species is known to occur within the area and is common near water.

Cooper's Hawk

The Cooper's hawk is a CDFW Species of Special Concern. This species is found in variety of habitats including quiet neighborhoods and parks. Cooper's hawks have the ability to hunt large and evasive prey using extremely well-developed agility. This species was observed within the project area.

Burrowing Owl

The burrowing owl is a CDFW Species of Special Concern (burrow sites). This species breeds from southern interior British Columbia, southern Alberta, southern Saskatchewan, and southern Manitoba, south through eastern Washington, central Oregon, and California to Baja California, east to western Minnesota, northwestern Iowa, eastern Nebraska, central Kansas, Oklahoma, eastern Texas, and Louisiana, the southern portion of Florida, and south to central Mexico. The western subspecies, western burrowing owl, occurs throughout North and Central America west of the eastern edge of the Great Plains south to Panama (County of Riverside 2008). Due to frequent human and domestic animal presence, there is moderate to low potential for this species to occur within the project area.

Yellow-breasted Chat

Yellow-breasted chat is a CDFW Species of Special Concern. This species is found throughout the United State and Mexico but is an uncommon breeder in Southern California. Even though they were not observed within the project area, but this species is known to occur in and near riparian habitat.

Southern grasshopper mouse

Southern grasshopper mouse is a CDFW Species of Special Concern. Common in arid desert habitats of California. Although not observed within the project area this species is known to occur in and near the proposed project area.

Western Mastiff Bat

The western mastiff bat is a CDFW Species of Special Concern. The western mastiff bat occurs in two populations; one from the southwestern United States to central Mexico and the other from the northern and central portions of South America (Harvey et al., 1999). The western or California mastiff bat subspecies primarily occurs from low to mid elevations in southern and central California southeast to Texas and south to central Mexico. Suitable habitat occurs throughout the project area. There is a high potential this species would forage within the project area.

Big Free-tailed Bat

The big free-tailed bat is a CDFW Species of Special Concern. Big free-tailed bats typically occur in a variety of habitats. They are generalist predator, mainly on small mammals. Species is relatively common within riparian corridors, but rarely observed. Foraging bouts occur well after sunset, after solar radiation has ceased. Suitable foraging habitat is present within the project area. There is a high potential for the species to forage within the project area.

Western Yellow Bat

The western yellow bat is a CDFW Species of Special Concern. This species is known to occur throughout southern California and is believed to have expanded its range as with the spread of Mexican fan palms. This species prefers to roost in dead palm fronds near riparian areas with running water. There are palms within the project area and surrounding vicinity. There is a high potential for the species to occur due to the presence of roosting and foraging habitat.

Hoary bat (Lasiurus cinereus)

The Hoary bat is a CDFW Species of Special Concern. Found at any location in California, although distribution patchy in southeastern deserts. This common species winters along the coast and in southern California, breeding inland and north of the winter range. The species has a low probability of being within the project area. The project area lacks preferred habitat for this species.

Western red bat

The western red bat is a CDFW Species of Special Concern. Found locally common in some areas of California, occurring from Shasta Co. to the Mexican border, west of the Sierra Nevada/Cascade crest and desert. There is a low potential for this species to occur in the project area although there is some suitable habitat available, such as the riparian habitat.

Silver-haired bat

The silver-haired bat is a CDFW Species of Special Concern. Occurs in southern California from Ventura and San Bernardino Cos. south to Mexico; habitats include coastal and montane coniferous forests, valley foothill woodlands, pinyon-juniper woodlands, and valley foothill and montane riparian habitats. There is a low chance for species impact because it lacks the preferred habitat for species to roost.

Townsend's big-eared bat

The Townsend's big-eared bat is a CDFW Species of Special Concern. Found throughout California but now considered uncommon; is most abundant in mesic habitats. There is a low chance for species impact because it lacks the preferred habitat for species to roost.

3.4.3 WILDLIFE MOVEMENT

Habitat linkages and movement corridors facilitate regional animal movement and are generally centered near waterways, riparian corridors, flood control channels, contiguous habitat, and upland habitat. Drainage ways generally serve as movement corridors because they are natural elements in the landscape that guide animal movement (Noss, 1991; Ndubisi et al., 1995; R. Walker and Craighead, 1997, in Hilty et al., 2006). Larger river and stream riparian corridors provide the best remaining option for sustaining and improving ecological connectivity in much of the state, and in particular southern California (Spencer 2010). Corridors also offer wildlife unobstructed terrain for foraging and for dispersal of young individuals. It is also necessary to consider spatial and temporal scales when analyzing potential corridors. Species

may require varying spatial scales to fulfill their life history requirements and use of corridors can be important on temporal scales ranging from time periods as short as hours to as long as generations, depending on the desired use of the corridor.

Undisturbed landscapes contain a variety of movement corridors, habitat linkages, travel routes, wildlife crossings and other features that facilitate wildlife movement through the landscape and contribute to population stability. The relative size and characteristics of these features are different for each species that uses them. When human activities fragment landscapes, movement corridors, habitat linkages, travel routes, and wildlife crossings may be altered or eliminated. Continued use of these features by wildlife depends on their ability to find adequate space, cover, food, and water, in the absence of obstacles or distractions (e.g., man-made noise, lighting) that might interfere with wildlife movements.

The nearest area of non-urbanized, relatively natural wildlife habitat to the Reservoir is within the Puente Hills to the east of the Reservoir, and the Montebello Hills to the west. Whittier Narrows Dam is located directly in this Chino-Puente Hills wildlife corridor pathway, and as such, plays a decisive role in determining wildlife connectivity throughout the length of the Puente Hills (Spencer 2005). Due to the highly urbanized condition of Whittier Narrows, however, the Reservoir is ineffective as a wildlife corridor and is likely to prevent wildlife passage through the larger Chino-Puente Hills corridor. Several major high occupancy highways and freeways pass through the Reservoir, including Rosemead Boulevard, Pomona Freeway, Durfee Avenue, and the San Gabriel Blvd.

Movement of wildlife between two areas varies by species and each species may require differing corridor characteristics. Spencer (2005) identifies two types of barriers; a barrier that is impassable under any circumstances for a particular species, and a filter barrier, which may be utilized by a species under some circumstances. For example, most ground-dwelling species will not pass over a busy roadway, particularly if it has several lanes of traffic, retaining walls, a large area with no vegetation, fences, or other physical barriers. In general, smaller ground-dwelling species, such as amphibians, reptiles, and small mammals, are more reluctant to pass over barriers or through filters and are therefore less mobile than other species. Large mammals and birds are less sensitive to barriers. Fish barriers include low or no streamflow, culverts, dams, concrete channels, felled trees, and other natural and man-made obstacles.

Both barriers and filters are present throughout the Reservoir meaning that connectivity through the Reservoir, as well as within the Reservoir, are limited. Roadways, as mentioned above, discourage movement through and within the Reservoir for most species, excepting birds and bats. Areas of development and high-intensity recreation are also significant barriers. Even where areas of native habitat remain, their small size, disturbance level, and disconnection from the adjacent Puente Hills result in few, if any, ground-dwelling and small mammal taxa being able to disperse to the Puente Hills. Aquatic passage within the Rio Hondo and San Gabriel River is precluded by the presence of the Dam and flood risk management grade control structures. The natural area south of Durfee Avenue is connected along the channel beneath Rosemead Boulevard.

Overall, connectivity within and through the Reservoir is severely limited for megafauna as well as reptiles and small mammals. Migrating or resident songbirds, waterfowl, shorebirds, and wading birds easily move between habitats within the Reservoir and readily disperse to outside habitats.

Habitat fragmentation is also an important issue impacting wildlife. At both small and large scales, several studies have documented the negative effects on population structure, home range size, and genetic connectivity resulting from seemingly innocuous features traversing formerly undisturbed habitat (Mader

1984; Swihart and Slade 1984; Dunning et al. 1992). Within the Reservoir, very little habitat remains undisturbed by anthropogenic activities. For example, historically suitable native fish habitat has been fragmented by barriers, changes in substrate and introduction of predators that has caused populations to be genetically isolated from one another. However, even singular habitat types restored or preserved as only minimally disturbed can serve as corridors in the present and future.

No known anthropogenic barriers to dispersal for ground-dwelling wildlife and plants were observed within the project area.

3.5 CULTURAL RESOURCES

Cultural resources are locations of past human activity, occupation, or use on the landscape which may include pre-contact, ethnohistoric, and historic archaeological sites, and buildings or structures that are over 50 years old. These can include heritage assets ranging from small archaeological sites such as lithic scatters and historic trash scatters to large prehistoric villages or logging camps. “Traditional Cultural Properties,” which are aspects of the physical environment that are associated with cultural practices or beliefs of a living community that are both rooted in that community’s history and are important in maintaining its cultural identity (Parker and King 1998) are afforded the same consideration as other cultural resources.

The term “cultural resource” is not defined in NEPA and has no statutory definition, but the related term “historic property” is defined in law (54 U.S.C. § 300308) and regulation (36 C.F.R. § 800.16 - Definitions). In general, a historic property is defined as a cultural resource that has met standards of age, integrity, and significance that qualify it as eligible for listing on the National Register of Historic Places (NRHP). The National Historic Preservation Act (NHPA) is the major piece of legislation that mandates that Federal agencies take into account the effects of their undertakings on historic properties.

Consultation with the SHPO and consulting parties for the current undertaking is being conducted concurrently with review of this EA.

3.5.1 Area of Potential Effects (APE)

The APE encompasses the (1) the Proposed Action Alternative footprint and physical disturbance areas where sediment and vegetation removal will occur; and (2) the additional mitigation areas for impacts to riparian habitat (a total of 20.2 acres non-native species mitigation). This includes associated staging areas, possible temporary ramps, and use of the levee crown road as a haul road. These areas are all encompassed within the project area.

County public works access to the channel, public roads approved for haul, and commercial sources of borrow (if required) are not included in the APE as these are common and approved uses for these components. The APE takes into account a reasonable and good faith effort to capture the potential for visual, auditory, and other non-direct effects. Ground disturbance would occur mostly in areas that were previously disturbed by construction of the San Gabriel River and San Jose Creek flood control projects. There are, in fact, virtually no undisturbed ground surfaces in these areas, which are active flood channels and were previously active river and creek channels.

The vertical APE varies from 3 feet to 10 feet in depth, which is the depth of the accumulated sediment.

The horizontal APE does not extend beyond the originally constructed flood control features.

Study Area History and Background

The San Gabriel River and San Jose Creek are located in an important area for the Gabrieliño/Tongva/Kizh tribal organizations. Information from native inhabitants documented by early Spanish explorers, early settlers and 20th century ethnographers indicate several named locations associated with Tongva history and traditional practices. The mouth of San Gabriel River canyon was the terminus of an important trade route leading from the San Gabriel Valley to the Mojave Desert. Pictographs on rock walls and boulders are found nearby which may be related to spiritual practices or mark trails or territorial boundaries. The nearby city of Azusa is named for the Tongva village of *Ashuukshanga* (McCawley 1996).

Previous Studies and Existing Conditions

Corps internal cultural resources records and records searches dated 2017 and 2019 indicate that 19 pedestrian archaeological surveys have covered much (about 163.9 acres) of the 222.27-acre APE. No archaeological sites or isolates have been recorded in this area. Historic period resources crossing or adjacent to the Proposed Project area include the Whittier Narrows Dam and five high power electric transmission and distribution lines. Whittier Narrows Dam and four of the five electrical transmission and distribution lines have been determined not to be eligible for listing on the National Register of Historic Places with concurrence from the State Historic Preservation Officer. One, a 40-mile-long segment of the Los Angeles Department of Water and Power Boulder Lines 1 & 2 Boulder Dam - Los Angeles 287.5 kV transmission line and is a contributing element of a National Register of Historic Places listed historic district. No towers or poles are located within the actual footprint of the current project area (i.e., within the sediment removal or invasive plant removal areas, staging areas, or similar areas).

The SGR2 levee is part of the San Gabriel River Flood Control System (SGRFCS), a property constructed by the Corps and the Los Angeles County Flood Control District between 1952 and 1971. Portions of the SGRFCS have been recorded, including site P-19-190510 (Arcadia-El Monte-Irwindale Levee Span), as well as a section just below the confluence with Coyote Creek (Reach 7) in Orange County. The left bank of the SGR2b levee was constructed between October of 1952 and March of 1953 and the left bank was constructed between 1970 and October 1971. Although the levee and the SGRFCS have not yet been evaluated, the Corps believes the system is eligible under criterion A (Conservation) for associations with the massive flood control program and substantial changes to the San Gabriel River that allowed modern development in the Los Angeles basin and protected crucial growth of population and industry in southern California. Like flood control efforts in the Los Angeles River, it enabled development and growth in the latter half of the 20th century that would otherwise not have been feasible and prevented the loss of life and property in later floods, such as those of 1969.

3.6 AESTHETICS

The area was developed from agriculture to bedroom communities with many areas incorporating into cities along with the City of Los Angeles. The area is typical of the urban/sub-urban sprawl that makes up southern California today. Each city has its own center of government surrounded by suburban development of a variety of housing, retail centers, parks, schools, hospitals, and other urban amenities. There is very little open space except for parks. Closer to the foothills of the San Gabriel Mountains, there remain open patches such as the quarries and undeveloped land that one day can be expected to become future areas of housing and other suburban development.

3.7 RECREATION

Recreational uses within the project area include formal and informal equestrian and bike trails, sports complexes, and parks (**Table 3.7-1**). Non-designated equestrian trails exist within and adjacent to the San Gabriel River. These existing trails connect with the San Gabriel River Trail regional system. This system is continuous in the immediate project vicinity and stretches from Azusa to Seal Beach. Recreational uses within 2 miles of the project area include San Jose Creek Overlook, Blackwill Equestrian Park, Whittier Narrows Equestrian Center, and Whittier Narrows Natural Area and Nature Center.

Table 3.7-1 Recreation Facilities in Project Vicinity

Facility
Whittier Narrows Equestrian Center
Whittier Narrows Natural Area and Nature Center
Pico Rivera Sports Arena
Pico Rivera Bicentennial Park
San Jose Creek Overlook

3.8 NOISE

Noise can be defined as unwanted sound or combination of sounds that may interfere with conversation, work, rest, recreation, and sleep, or in the extreme may produce physiological or psychological damage. Sound has two main components to a human ear; pitch and loudness. Sound travels from a source in the form of wave, which exerts a pressure on a receptor such as a human ear. While the pitch of a sound is generally associated with an annoyance, sound loudness can interfere with activities such as conversation, sleep, and learning, and can even have lasting physiological effects, such as hearing loss.

Human response to noise is subjective and can vary greatly from person to person. Factors that influence individual response include the intensity, frequency, and pattern of noise; the amount of background noise present before the intruding noise; and the nature of work or human activity that is exposed to the noise source.

The preferred unit for measuring sound is the decibel (dB). The amount of pressure a sound wave exerts is referred to as sound level, commonly measured in decibels (dB). As a reference, a sound level of zero dB corresponds roughly to the threshold of human hearing and a sound level in the range of 120 to 140 dB can produce human pain. Those who are more sensitive to noise such as children and the elderly are at higher risk of being adversely affected by excessive noise levels.

Sensitive Receptors in the Project Area- Some land uses are considered more sensitive to elevated noise levels because of the purpose and intent of the use. Places where people are meant to sleep, or places where a quiet environment is necessary for the function of the land use, are normally considered sensitive. For instance, residential areas, schools, places of worship, and hospitals are more sensitive to noise than areas of commercial and industrial land uses. Noise is produced from a variety of urban and sub-urban sources in the general metropolitan Los Angeles area. The major source of continuous noise is roadway traffic and industrial center noise of manufacturing. During summer months, the background hum of air conditioners is often heard in residential areas.

Ambient noise levels within the project area are generally low. Major noise sources in the area include

traffic on SR-60, which borders the western side of the project area, and I-605 to the southeast. Sensitive noise receptors located within one mile of the project area include residential areas, schools, places of worship, hotels, libraries, and community parks.

3.9 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

The Proposed Action would be located within the cities of South El Monte and Avocado Heights. For the purposes of this discussion of Socioeconomics, demographic data for the cities is presented below, in **Table 3.9-1.**

Table 3.9-1 Demographic Data for the cities of South El Monte and Avocado Heights

	Subject	Estimates	
		South El Monte[1]	Avocado Heights[2]
Population	Total Population	20,882	437
	Households	4657	65
	Median Age	34.3	30.8
Housing	Housing Units	4840	68
	Average Household Size	4.5	3.1
Household Income (% of Population)	Less than $15,000	10	3
	$15,000 – $35,000	30	14
	$35,000 - $75,000	26	36
	$75,000 - $150,000	21	40
	More than $150,000	4	10
	Median Household Income	$44,651	$74,464
Ethnicity (%)	White	3.6	22.5
	Black or African American	0.1	0.6
	American Indian and Alaska Native	0	0
	Asian	14.2	13.4
	All Other (Non-Hispanic)	0.1	0
	Persons of Hispanic or Latino Origin (Any Race)	82.0	63.5

Sources:

[1]Southern California Association of Governments; 2019 Profile of the City of South El Monte

[2] Southern California Association of Governments; 2019 Profile of the City of Avocado Heights

Population- The cities of South El Monte and Avocado Heights have an estimated population of 20,882 and 437, respectively. South El Monte and Avocado Heights represent 0.2 and 0.0004 percent of the Los Angeles County population, respectively. In addition, the median age in South El Monte and Avocado Heights are 34.3 and 36.0, respectively. These median ages are slightly lower than the County median age of 36.0.

Housing- An estimated 4,840 and 68 housing units are located in the cities of South El Monte and Avocado Heights, respectively. Between 2000 and 2018, the total number of households in the city of South El Monte increased by 37 units, or 0.8 percent, and the total number of households in the city of Avocado Heights decreased by 56 units, or -46.3 percent

Income and Poverty- The median household income is $44,651 in the city of South El Monte and $74,464 in the city of Avocado Heights. The Los Angeles County's median household income is $61,015.

The poverty rate for the city of South El Monte is estimated to be 19.3 percent. The poverty rate for the city of Avocado Heights is estimated to be 5.5 percent. In comparison, the Riverside County unemployment rate is 12.7 percent (2019 ACS, 5-year estimate). The Census Bureau's definition for poverty uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty.

Ethnicity- According to the 2019 SCAG profile, the ethnic makeup of the city of South El Monte consists of Hispanics at 82.0 percent, Whites at 3.6 percent, Asians at 14.2 percent, Black or African American at 0.1 percent and All Other at 0.1 percent. The ethnic makeup of the city of Avocado Heights consists of Hispanics at 63.5 percent, Whites at 22.5 percent, Asians at 13.4 percent, and Black or African American at 0.6 percent.

Environmental Justice community

Executive Order 12898 focuses Federal attention on the environment and human health conditions of minority and low-income communities and calls on agencies to achieve environmental justice as part of its mission. The Executive Order requires the USEPA and all other Federal agencies (as well as state agencies receiving Federal funds) to develop strategies to address this issue as part of the NEPA process. The agencies are required to identify and address, as appropriate, any disproportionately high and adverse human health or environmental impacts of their programs, policies, and activities on minority and low-income populations. The Executive Order makes clear that its provisions apply fully to programs involving Native Americans. The CEQ has oversight responsibility for the Federal government's compliance with Executive Order 12898 and NEPA. The CEQ, in consultation with the USEPA and other agencies, has developed guidance to assist Federal agencies with their NEPA procedures so that environmental justice concerns are effectively identified and addressed. According to the CEQ's Environmental Justice Guidance under the National Environmental Policy Act, agencies should consider the composition of the affected area to determine whether minority populations or low-income populations are present in the area affected by the proposed action, and if so whether there may be disproportionately high and adverse human health or environmental impacts (CEQ 1997).

An analysis of demographic data was conducted to derive information on the approximate locations of low-income and minority populations in the community of concern. The project area includes minority and low-income populations. See Appendix E.

3.10 PUBLIC SERVICES AND UTILITIES

The project area includes the typical array of municipal public services and utilities that support residential, commercial, and industrial uses. Public services and utilities serving the area include fire protection, electricity, schools, police protection, wastewater, natural gas, water and recycling.

Police, EMT, and Fire Protection- The Los Angeles County Sheriff's Department maintains a substation located at the Whittier Narrows Nature Area within the Reservoir. Fire Protection and Emergency Medical Technician (EMT) services are provided by the County of Los Angeles Consolidated Fire Department, Fire Station 90 which is located approximately two miles north of the Whittier Narrows Dam. The County maintains mutual aid agreements with other local cities and agencies for police, fire, and EMT services. The nearest emergency room and hospital services are at Greater El Monte Community Hospital

approximately two miles north of the Reservoir and Beverly Hospital in Montebello approximately four miles southwest of the Nature Area.

Schools-The Valle Lindo School District, Mountain View School District, El Monte City School District, and El Monte Union High School District serve the school needs for the City of South El Monte. There are four unified school districts in the immediate vicinity of the City of Avocado Heights, and they include Walnut Unified School District, Roland Unified School District, Hacienda La Puente Unified School District, and Bassett Unified School District. None of these schools are located within the project area.

Utilities and Service Systems- The project area is served by utility and service systems located in Los Angeles County. A variety of local purveyors in these areas provide and maintain utility and service system facilities associated with electricity, water, stormwater and wastewater, solid waste, and natural gas. Municipally operated lines provide sewer services in the area. **Table 3.10-1** summarizes the utilities providers serving the project area.

Table 3.10-1 Utility and Service Providers within the Project Area

Utility or Service System Provider
Natural Gas– Southern California Gas Company (Sempra Energy) **Electricity**–Southern California Edison **Water** – San Gabriel Valley Water Company **Wastewater** – Los Angeles County Consolidated Sewer Maintenance District and Sanitation Districts of Los Angeles County **Solid Waste and Recycling** – Universal Waste Services and Sanitation Districts of Los Angeles County

Any utilities within project limits will either need to be relocated prior to or during maintenance or protected in place.

3.11 TRANSPORTATION

Urban and sub-urban Los Angeles County encompasses a network of freeways, local roadways and connector roads. Mass transportation includes local and non-stop commuter bus lines, Metrolink, and various light rail lines such as the Blue Line, Red Line, Green Line and Gold Line. Amtrak provides commuter and long-distance rail service into and out of the Los Angeles metropolitan area. International and local airports provide commercial and private air transportation.

The Pomona Freeway (SR-60) and the San Gabriel River Freeway (I-605) intersect south of the project area. SR-60 runs east-west and borders the western side of the project area. The project area is surrounded by residential and arterial streets.

Average daily traffic (ADT) During Peak Hour and Annual average daily traffic (AADT) volumes measured for State Routes and local roadways in the vicinity of the project area are presented in **Table 3.11-1.**

Table 3.11-1 Annual Average Daily Traffic Volumes on Selected Roadways in the Project Area

Roadway Name	Average Daily Traffic (ADT) during Peak Hour	Annual Average Daily Traffic (AADT)
Interstate 605	16400	238000

State Route 60	16600	242000
Crossroads Parkway	17900	257000
Peck Road	16600	242000

*2017 Traffic Volumes obtained from California Department of Transportation (2017 Caltrans)

Other transportation related land uses in the vicinity include the Los Angeles County Metro transit services, including the bus system. Metrolink commuter trains are also available. The Proposed Action is located approximately three miles from the Metrolink El Monte Station at 10925 Railroad Street.

3.12 HAZARDOUS MATERIALS

This section focuses on existing public health and safety issues with regard to hazardous materials. The analysis was based on the summarized environmental pollutant information found and gathered only from the California State Water Resources Control Board internet "Geotracker" environmental database. The analysis only considered known project-area HTRW impacts from HTRW releases onto those properties/sites listed on the Geotracker database. It is important to note that there may be unknown HTRW or pollutant impacts to the project area, which were not fully disclosed and listed from Geotracker database.

The HTRW analysis focused on the known residual and active releases of HTRW into the adjacent property and environment within a ¼ mile distance of the study area. The analysis does not include evaluation of hazardous materials stored or used at or near the study area. Generally, hazardous materials are not considered part of HTRW impacts, unless or until they have been released to the environment, at which point they would be considered a hazardous substance or waste, according to CERCLA and Resource Conservation and Recovery Act (RCRA). Further details on how hazardous materials, hazardous waste and hazardous substances are regulated by law and addressed in Federal and State or Local environmental regulations and laws.

A cursory review of the Geotracker environmental database was performed, and listed HTRW sites (properties) of potential concern were evaluated for significance according to type of HTRW active/residual releases and their impacts to human health and the environment.

From the search, zero (0) properties were identified as having a potential HTRW impact to the project.

4 ENVIRONMENTAL CONSEQUENCES

Effects to various environmental aspects are addressed in this section. The information is based on recent surveys, literature review, and coordination with regulatory agencies and technical experts.

4.1 WATER QUALITY

4.1.1 SIGNIFICANCE THRESHOLD

Impacts would be considered significant if the alternative results in:

- Long-term violation of RWQCB water quality standards or objectives or impairment of beneficial uses of water

4.1.2 ENVIRONMENTAL CONSEQUENCES

4.1.2.1 *Proposed Action Alternative*

Under the Proposed Action Alternative, approximately 127,000 cy of accumulated sediment material and 11.2 acres of vegetation would be removed from the San Gabriel River channel impacting approximately 11.2 acres of potential WOTUS.

Sandbars throughout the project limits scope of analysis extend from the left bank, low flows are impinged against the right bank and the sandbars are not in contact with flows. Except for work on the sandbar-low flow interface, most earthwork would not increase turbidity.

Removal of the accumulated materials would require approximately three excavators, two loaders, and dump trucks to work within the channel invert. Use of maintenance-related vehicles increases the potential for accidental release of fuels, solvents, or other petroleum-based contaminants. However, best management practices (BMPs) would be implemented to reduce the likelihood for accidental releases. Fueling would occur outside of the channel. Potential contaminants would also be kept outside of the channel and within designated containers. Any spills that occurred would be cleaned up immediately.

Maintenance would not entail discharge of permanent fill material within potential WOTUS. However, up to three temporary earthen access ramps would be placed within potential WOTUS during maintenance, resulting in the temporary discharge of fill material. To minimize turbidity, fiber rolls and/or gravel bags may be installed below the ramp during its construction and removal. Prior to construction, the contractor would submit the design of the temporary ramps to the Corps for review and approval.

Furthermore, there would be temporary excavation within WOTUS associated with sediment removal. To minimize turbidity, prior to construction, the work area within WOTUS would be temporarily dewatered and isolated from nuisance and/or low flows. All dewatering structures would be removed prior to the rainy season or upon completion of construction, whichever occurs first. Additionally, a storm water pollution prevention plan (SWPPP) in accordance with section 402 of the Clean Water Act would be developed to minimize possible pollutants from entering the WOTUS from upland areas of the project, should the area of disturbance outside of WOTUS exceed one (1) acre.

The temporary discharges of dredged or fill material into WOTUS associated with the access ramps,

sediment removal, and stream diversion/dewatering are subject to Sections 401 and 404 of the Clean Water Act. These discharges are authorized by the Clean Water Act Section 401 Technically Conditioned Water Quality Certification (WQC) for the U.S. Army Corps of Engineers Los Angeles District, Operation, Maintenance, Repair, Replacement and Rehabilitation (OMRR&R) Activities Associated with the Los Angeles County Drainage Area (LACDA) Project System, Los Angeles County, a copy of which can be found in Appendix D of this EA. Although the Corps does not process and issue Section 404 permits for its own activities, the Corps authorizes its own discharges of dredged and fill material into WOTUS by applying all applicable substantive legal requirements, which have been considered in the 404(b)(1) evaluation provided in Appendix C of this EA.

4.1.2.2 *No Action Alternative*

Under the No Action Alternative, accumulated material from the project area would not be removed. The vegetation and sediment would continue to accumulate, which may ultimately result in the failure of the levee. Failure of the levee could increase turbidity and create water quality issues until emergency repairs are authorized.

4.1.1 SUMMARY OF SIGNIFICANCE THRESHOLDS RELATED TO THE PROPOSED ACTION

The Proposed Action would not cause long-term violation of RWQCB water quality standards or objectives or impairment of beneficial uses of water. Therefore, impacts to water quality would be less than significant.

4.2 AIR QUALITY

4.2.1 SIGNIFICANCE THRESHOLD

Impacts would be considered significant if the alternative:

- Equal or exceeds General Conformity Rule applicability rates.

4.2.2 ENVIRONMENTAL CONSEQUENCES

Emission Estimates Methodology

Air pollutant emissions associated with each alternative were estimated using CalEEMod Version 16.3.2, an air emissions modeling software developed by the SCAQMD in collaboration with other air districts in California, to estimate criteria air pollutant and greenhouse gas emissions from various land use development projects. The emission modeling software is used by air districts within California.

Estimates of lead emissions were not calculated. Lead emissions from mobile sources have significantly decreased due to the near elimination of lead in fuels. Thus, CalEEMod does not provide estimated emissions for lead. Little to no quantifiable and foreseeable lead emissions would be generated by any of the alternatives.

Ozone (O3) formation is driven by two major classes of directly emitted precursors: nitrogen oxides (NOx) and volatile organic compounds (VOC). The relation between O3, NOx and VOC is driven by complex nonlinear photochemistry. Due to the variability in rates of ozone formation, CalEEMod does not provide

estimates for ozone. Instead, the emissions associated with ozone precursors (i.e., VOC and NOx) are calculated and used as a surrogate for reporting ozone emissions.

General Conformity Rule makes a distinction between NOx as an ozone precursor and NO2 for reporting purposes. CalEEMod has emission factors for NOx but not for NO2. Because NO2, a form of NOx, forms the majority of NOx emission from internal combustion engines, estimated emissions of NOx are used as a surrogate for NO2 emissions.

4.2.2.1 *Proposed Action Alternative*

Emissions were estimated based on both on-road and off-road equipment using EMFAC 2007 emission factors. The daily emissions were based on the 17-week (120 days- 4 months) work duration. However, since the General Conformity Applicability Rates are calculated on an annual basis, the total estimated emissions for the project were equally divided by three years (estimated duration for project construction) and compared to the General Conformity Applicability Rates.

The project is scheduled to begin in the Fall of 2021 and end in the Fall of 2024. Proposed hours of operation are from 7:00 a.m. to 7:00 p.m., Monday through Friday, and 8:00 a.m. to 7:00 p.m. on Saturday. No work is proposed for Sunday or during holidays.

The Proposed Action would require a variety of equipment for each maintenance activity. Estimated number of equipment for each maintenance activity is summarized in **Table 4.2-1**.

Table 4.2-1 Maintenance Equipment for Proposed Action needed per Year

Maintenance Activity	Equipment	Quantity	Hours/Day	Total Work Days[1]	Emission Type
Sediment/Vegetation Removal	D6 Dozer	1	8	40	Off-road
	D8 Dozer	2	8	40	Off-road
	350 Crawl Loaders	2	8	40	Off-road
	500 Loaders	6	8	40	Off-road
	350 Excavators	2	8	40	Off-road
	320 Excavators	2	8	40	Off-road
	Skid-steers	2	8	40	Off-road
	Water Truck	1	4	40	On-road
	Pickup Trucks	4	4	40	On-road

[1] Total work days was based on the assumption of an 8-hour work day, 5-day work week.

Emissions from equipment that generally stays on-site would constitute off-road emissions. On-road emissions would include emissions from haul trucks and water trucks, as well as, the workers' vehicles (pickup trucks).

The following assumptions were used to calculate on-road emissions: a maximum of 2,800 round trips at 60 miles per round trip for dump trucks and approximately 30 on-site workers (pickup truck) round trips at 4 miles per round trip.

Under the Proposed Action, on-road and off-road emissions would include equipment summarized in **Table 4.2-1**. The equipment will operate 8 hours per day for approximately 120 days over three years,

approximately 40 days per year. Operations may not be continuous. Fugitive emissions of PM2.5 and PM10 would occur from use of unpaved roads and material handling. Fugitive emissions of PM2.5 and PM10 would be minimized through implementation of dust control BMPs described listed in Chapter 5. As shown in **Table 4.2-2**, estimated annual emissions would not equal or exceed any of the Clean Air Act General Conformity de minimis applicability rates. Additionally, impacts as a result of the Proposed Action would be temporary in nature and would not result in substantial long-term air quality impacts. Therefore, the Proposed Action would have less than significant impacts to air quality.

Estimated GHG emissions are shown in **Table 4.2-3**.

Air quality emissions calculations and assumptions are provided in **Appendix F**.

Table 4.2-2. Comparison of Annual Estimated Emissions to Applicable General Conformity Rates

Pollutant	NAAQS Attainment Designation	General Conformity Rates (tons/year)	Estimated Annual Emissions 2021 (tons/year)	Estimated Annual Emissions 2022 (tons/year)	Estimated Annual Emissions 2023 (tons/year)
Ozone (VOC as precursor)	Nonattainment (Extreme)	10	0.15	0.15	0.15
Ozone (NOx as precursor)	Nonattainment (Extreme)	10	1.98	1.98	1.98
Carbon Monoxide (CO)	Maintenance	100	1.18	1.18	1.18
Nitrogen Dioxide (NO2)	Maintenance	100	1.98	1.98	1.98
Particulate Matter (PM10)	Maintenance	100	0.47	0.47	0.47
Particulate Matter (PM2.5)	Nonattainment (Serious)	70	0.27	0.27	0.27
Lead (Pb)	Nonattainment	25	not calculated	not calculated	not calculated

Table 4.2-3 Estimated Emission of Greenhouse Gases

Estimated Annual Emissions 2020 (tons CO2e/year)	Estimated Annual Emissions 2021 (tons CO2e/year)	Estimated Annual Emissions 2022 (tons CO2e/year)
357	357	357

4.2.2.2 *No Action Alternative*

Under the No Action Alternative, accumulated material from the project areawould not be removed. There would be no temporary emissions from the use of earthmoving equipment, and dump trucks.

4.2.3 SUMMARY OF SIGNIFICANCE THRESHOLDS RELATED TO THE PROPOSED ACTION

The Proposed Action would not equal or exceed General Conformity Rule applicability rates. Therefore, impacts to air quality would be less than significant.

4.3 EARTH RESOURCES

4.3.1 SIGNIFICANCE THRESHOLD

Impacts would be considered significant if the alternative:

- Causes substantial flooding, erosion, or siltation
- Exposes people or structures to major geologic hazards; and/or
- Results in unstable earth conditions or changes in geologic substructure.

4.3.2 ENVIRONMENTAL CONSEQUENCES

4.3.2.1 *Proposed Action Alternative*

Approximately 127,000 cy of accumulated material would be removed from the San Gabriel River and San Jose Creek confluence. The composition of the accumulated material is homogeneous. Thus, removal of the accumulated material would mostly expose additional boulders and cobbles. Sediment remaining in the interstitial space would be composed of gravel, rough sand, and fines with gravel and rough sand the predominant constituents. Though the exposed surface would continue to remain exposed to wind and water, potential for erosion is minimal since the predominant material is coarse sand. Coarse sand is not easily carried by wind and settles out of the water column quickly. Boulders and cobbles would not be subject to movement from wind action. Though some movement of topsoil composed of fines and sand is expected, increased wind erosion potential is minimal due to consolidation and compaction. The temporary absence of vegetation from the newly exposed surface could increase wind and water erosion. However, any change would not be notable because the substrate is already exposed to wind and water and sediment removal would occur immediately after vegetation removal.

Some water erosion during storm flows is possible, but sedimentation is more likely. The hydraulics, in addition to channel roughness, at the bend at the San Gabriel River and San Jose Creek confluence promote sedimentation. Sediment equilibrium within the water column would determine sedimentation or erosion rates. Wind and water erosion would be minimal.Therefore, impacts would be less than significant.

Removal of the excess accumulated material and vegetation would return the channel back to its designed elevations and address the 15-degree entrance angle requirement for design of a channel confluence, ultimately reducing the risk of levee failure and allowing the channel to function as intended. As the substrate within the channel is homogeneous and wind and water erosion is anticipated to be minimal, the Proposed Action will not result in substantial flooding, erosion and siltation; expose people or structures to major geologic hazards or result in unstable earth conditions.

4.3.2.2 *No Action Alternative*

Under the No Action Alternative, accumulated material from the project area would not be removed. The accumulated material would continue to remain exposed to wind and water. Boulders and cobbles would not be subject to movement from wind action. Movement of topsoils composed of fines and sand is expected. However, wind erosion potential is minimal due to consolidation and compaction. The

vegetation atop the accumulated material would further minimize erosion. Some water erosion during storm flows is possible, but sedimentation is more likely. The hydraulics, in addition to channel roughness, at the bend at the San Gabriel River and San Jose Creek confluence promote sedimentation. Sediment equilibrium within the water column would determine sedimentation or erosion rates. Sediment would continue to accumulate, likely further reducing the entrance angle of the river confluence. This would allow erosion to persist allow the levee embankment and may result in levee failure causing flooding and risk for people and property. The No Action Alternative may result in future failure of the levee which could result in substantial flooding and expose people and structures to major hazards.

4.3.3 SUMMARY OF SIGNIFICANCE THRESHOLDS RELATED TO THE PROPOSED ACTION

The Proposed Action would not cause substantial flooding, erosion, or siltation; expose people or structures to major geologic hazards; and/or result in unstable earth conditions or changes in geologic substructure. Therefore, impacts to earth resources would be less than significant.

4.4 BIOLOGICAL RESOURCES

4.4.1 SIGNIFICANCE THRESHOLD

Impacts would be significant if the Proposed Action would cause one or more of the following conditions to occur:

- A substantial net loss in the habitat value of a sensitive biological habitat or area of special biological significance.
- Substantial loss to the population of any native fish, wildlife, or vegetation.
- A substantial adverse effect on a population of a threatened, endangered, or candidate species or substantial modification of designated critical habitat for a listed species.
- A substantial adverse effect on a population of special-status species.
- Substantial impedance to the movement or migration of fish or wildlife.
- Substantial loss in overall diversity of the ecosystem.

4.4.2 ENVIRONMENTAL CONSEQUENCES

4.4.2.1 *Proposed Action Alternative*

Effects could occur when sensitive biological resources are altered, disturbed, destroyed, or removed during construction of the project. Effects would result from activities such as vegetation removal, grading, brushing, or the mechanical crushing of vegetation from equipment and vehicles. Other effects could include loss or degradation of foraging, nesting, or burrowing habitat for wildlife species and habitat disturbance from noise related to activities, as well as due to increased sedimentation, dust, changes to hydrology, or unfavorable substrate conditions that results in the introduction and establishment of exotic invasive species. These changes may in turn affect vegetation communities and sensitive species.

The riparian plant communities in the project area are considered sensitive habitat types for their role in the ecological function of the Reservoir. These communities play an important role in the life histories for a broad diversity of both common and special-status wildlife species. In addition, the project area overlaps

with designated critical habitat for coastal California gnatcatcher. While there are impacts to non-sensitive habitats that are not protected, these communities still provide important foraging and refugia habitat for a variety of plant and wildlife species.

Vegetation Communities

The Proposed Action would result in potential effects to disturbed riparian and upland vegetation through vegetation clearing and ground-disturbing activities in the project limits footprint, construction staging areas and access ramps. Estimated permanent impacts for the Proposed Action within the project limits footprint are summarized in **Table 4.4-6**, respectively.

To limit the effects of vegetation removal and ground-disturbing activities, construction activities would be limited to the project limit footprint and delineated by visible boundaries. Additionally, dust control measures would be implemented to reduce excessive dust emissions. Excessive dust can decrease or limit plant survivorship by decreasing photosynthetic output, reducing transpiration, and adversely affecting reproductive success. Additionally, erosion control measures may be implemented to prevent potential effects to existing topography and hydrological regimes that could impact the health of vegetation communities. Upon construction completion, the site would be restored to pre-project conditions.

Table 4.4-1 Vegetation Impacts in the Project Limits Footprint

Plant Community Type	Total acreage	Project Component Permanent Impacts (acres)	Project Component Temporary Impacts (acres)
Mixed Canopy Native Vegetation	67.9	9	0
Mixed Canopy/Non-native Invasive vegetation	20.7	2.2	18.8
Non-native homogeneous or herbaceous/low growing vegetation	41.6	0	0
Barren	1.2	NA	NA
		Total Acres	**131.4**

Temporary impacts would occur as a result of construction of 3 temporary ramps that would provide construction access to the channel shoaling areas. These temporary locations are the only feasible access to the project area that could accommodate large construction equipment and would be used as the primary access during construction. The ramps would angle down to the edge of the slope toe and toward the channel. The contractor would construct the ramps with fill from the channel sediment or a commercial source. The temporary access ramps would measure approximately 120 feet long, 15 ft. wide, and 2 ft. high and would be comprised of clean earthen fill and/or excess accumulated material from on-site within the project area. To minimize turbidity, fiber rolls and or sandbags would be installed below the ramp during its construction and removal. Upon completion of construction, the ramps and other erosion control measures would be removed, and the area would be put back to its original grade.

The Proposed Action could also facilitate the introduction or establishment of additional weed species, or further spread of existing weeds. Non-native and invasive species include, the highly invasive arundo/giant reed (*Arundo donax*), perennial pepperweed (Lepidium latifolium), Castor bean (Ricinus communis) sweet clover (*Melilotus ablus*), mustard (*Hirschfeldia sp*.), sow thistle (*Sonchus sp*.) and brome grass (*Bromus sp*.). These invasive plant species can cause a permanent or long-lasting change to the environment by increasing vegetative cover, creating a dense layer that prevents native vegetation from germinating, altering the edaphic and hydrological conditions through nitrogen fixation or may reduce the water table as has been documented with species such as giant reed. To the extent feasible, the contractor would prevent exotic weeds from establishing within the work site. Construction equipment would be cleaned of mud or other debris prior to mobilizing and before leaving the site to reduce the potential spread of invasive plants and/or seeds.

To reduce the potential effects on plant communities, including sensitive biological habitat, the Corps would implement conservation measures provided in Section 5 of this EA. These measures include enhancing and maintaining habitat areas beginning at the conclusion of construction for a period of 10-years. Construction monitoring would be conducted to confirm compliance with commitments. Additionally, temporary and permanent impacts to riparian habitat and would be offset through passive restoration of wetland/riparian habitat. A total of 11.2 acres of permanent impacts would be offset by a total of 20.2 acres of enhancement (**Table 4.4-7**). All temporary impacts would be restored onsite through planting and seeding by the contractor and undergo a maintenance period. Detailed information of habitat type mitigation ratios and maintenance commitments are provided in the Environmental Commitments in Section 5. Because approximately 20 acres of the project area is currently occupied by Arundo, ancillary habitat benefits are anticipated due to the removal of Arundo during site preparation and subsequent restoration of the site with native vegetation. Therefore, the Proposed Action would not cause a substantial net loss in the habitat value of a sensitive biological habitat or area of special biological significance or equate to loss of overall ecological diversity within the area.

Table 4.4-2. Impacts under the Proposed Action and Summary of Proposed Offset

Plant Community Type	Acreage of Permanent Impacts (acres)	Offset Ratio	Total Offset Proposed (acres)
*Wetland/Riparian	9.0	2:1	18.0
Mixed Canopy/Non-native Invasive vegetation	2.2	1:1	2.2
		Total Acres	**20.2**

* Least Bell's vireo suitable habitat

Wildlife

Section 5 includes a series of avoidance/minimization or offsetting measures that would be implemented as part of the Proposed Action to mitigate for impacts to wildlife, including sensitive species, should they occur. Measures to offset the permanent loss and temporary disturbance of wildlife habitat, include requirements for vegetation clearing to occur outside of the nesting season, enhancement and

maintenance of areas disturbed on-site (following project construction). The minimization measures described above for vegetation communities would also benefit wildlife in the area. These measures include construction monitoring to ensure that impacts occur only within designated areas, fugitive dust control, and erosion control.

Additional measures to minimize potential effects to wildlife include environmental training for construction personnel, installation of sound barriers to minimize noise and visual impacts, and construction noise monitoring during the nesting season to ensure compliance with applicable noise thresholds. Therefore, the Proposed Action would not cause a substantial adverse effect on populations of any native fish, wildlife, or vegetation.

Sensitive Species

Habitat within or in the vicinity of the project area has the potential to support federally- and state-listed wildlife species. Designated critical habitat for listed species also occurs within project area. Federally-listed species include least Bell's vireo (nesting territories), coastal California gnatcatcher (known foraging habitat and designated critical habitat). A complete list of special-status species with potential to occur in the project area is listed in (Appendix A).

The following sections discuss special-status wildlife that have the potential to occur within the project area. Environmental commitments include the requirement for surveys to be performed prior to construction, and construction monitoring would include monitoring of these species within the project area. A full list of environmental commitments can be found in Section 5 of this EA.

Least Bell's Vireo (FE, SE)

Least Bell's vireo (vireo) are known to currently maintain nine (9) territories within the project area (**Figure 4.4-2)**. Two lie within the permanent construction footprint and seven (7) lie within the mitigation area. This would result in potential permanent displacement of two territories and temporary displacement of seven (7) territories. To avoid potential effects to vireo, vegetation clearing would occur outside of the nesting season, and sensitive species monitoring would occur through the duration of construction activities. Additionally, considering the large width of the floodplain, movement of vireo would not be constricted within the adjacent area. Although increased competition for nest sites and other resources could occur until construction is completed.

Vireo use their sense of hearing to locate their young and mates, to establish and defend territories, and to locate and evade predators (Scherzinger, 1970). The impact of construction noise on nesting vireo is not well understood. Excessive noise levels have the potential to cause behavioral changes, physiological effects, such as temporary or permanent loss of hearing, and can result in masking of important auditory cues, such as predator alert calls. Vireo may also abandon a nest and general territory if they cannot tolerate the loud noises, in which case eggs and/or hatchlings would be abandoned, inhibiting further recruitment to the population at least temporarily.

Fugitive dust emissions from construction activities has the potential to impair the vision of vireo nesting within and adjacent to the project area. Additionally, increased human presence can cause disturbances to vireo, resulting in nest and/or territory abandonment. BMPs would be implemented to minimize fugitive dust emissions.

As described earlier, nonnative species comprise a large percentage of the project area. Vegetation

clearing at the beginning of construction and site enhancement after construction would create an overall improvement in riparian habitat within the project area.

Coastal California gnatcatcher (FT)

Coastal California gnatcatchers (gnatcatcher) are known to currently disperse two (2) territories within the project area (**Figure 4.4.2-1**). Of the two (2) known territories occurring within the project area, none are within the project limits footprint. No potential permanent displacement of territories is expected because these were juvenile gnatcatchers dispersing through the habitat within and adjacent to the project area. This is assuming that the gnatcatcher nesting beyond 200 feet from the project area would continue successfully. To avoid potential effects to gnatcatcher, vegetation clearing would occur outside of the nesting season, and sensitive species monitoring would occur through the duration of construction activities. Additionally, considering the large width of the floodplain, movement of vireo would not be constricted within the adjacent area. Although increased competition for nest sites and other resources could occur until construction is completed.

A total of approximately 95 acres of designated critical habitat fall within the project area. Approximately one-third (1/3) of designated critical habitat would be temporarily impacted during passive restoration activities for mitigation within the project area. Of the total critical habitat within the project area, a small portion provides PBFs (i.e., breeding and foraging habitat) required for gnatcatcher occupation. Designated critical habitat outside of the project limits footprint would be enhanced after construction is completed.

The impact of construction noise on nesting gnatcatcher is not well understood. Excessive noise levels have the potential to cause behavioral changes, physiological effects, such as movement from the area. Gnatcatcher may also abandon a nest and general territory if they cannot tolerate the loud noises, in which case eggs and/or hatchlings would be abandoned, inhibiting further recruitment to the population at least temporarily.

Implementation of BMP's as described earlier for vireo would also be implemented for gnatcatcher. BMPs would be implemented to minimize fugitive dust emissions. Awareness of the potential effects of spreading nonnative plant species and prevention and eradication techniques. Therefore, the Proposed Action would not cause a substantial adverse effect on a population of threatened, endangered, candidate species, or special-status species or substantial modification of designated critical habitat for a listed species.

Other Special-Status Birds

The Proposed Action would temporarily and permanently impact riparian and upland habitat, as detailed in previous sections. Based on recent surveys, vegetation removal would have the potential to impact breeding and foraging habitat for special-status bird species, including yellow-breasted chat and Cooper's hawk.

Measures described previously for listed species would also benefit these special-status species. Measures include scheduling vegetation removal activities outside of the nesting bird season, implementing biological monitoring, and requiring construction workers to take an environmental training. Construction noise and increased human presence could potentially deter these species, open channel and adjacent open space areas along the banks would allow these species to avoid these areas and utilize existing resources nearby. Therefore, the Proposed Action would not cause a substantial

adverse effect on a population of special-status species.

Special-Status Mammals

No bat surveys have been conducted for the project. However, eight (8) special-status bat species have potential to occur within the project area, according to database searches and anecdotal evidence. These species include hoary bat, western red bat, Townsend's free-tailed bat, western mastiff bat, silver-haired bat, western yellow bat, big free-tailed bat and pocketed-free tailed bat. Potential suitable habitat for seven of the eight species of bats exists within the project vicinity. Pocketed free-tailed bats are not likely to occur in the project vicinity compared to the other two species because habitat suitability is relatively low.

Bats are known to roost in trees. Construction hours for the Proposed Action would avoid most night work. However, unique factors at the time of the project could change that proposal. Noise and vibration can negatively affect bats by impairing their ability to forage or roost comfortably. Additionally, increased human presence and fugitive dust emissions could potentially degrade habitat quality. BMPs would be implemented to reduce the presence of fugitive dust, and construction of sound walls would reduce direct sight of human presence from outside of the project area. Loss of potential roosting habitat due to removal of trees within the project area as the potential to impact individuals. However, potential effects would likely be small and would not adversely affect the bat populations in the region.

Measures to minimize and avoid impacts to special status mammals would include environmental training for crewmembers, pre-construction surveys for sensitive species, biological monitoring during construction, and development and implementation of a lighting plan to reduce potential effects to residents and wildlife. Considering the discussion above, the Proposed Action would not cause a substantial adverse effect on a population of special-status species.

Wildlife Movement

Any construction activities within the San Gabriel River that may impede wildlife movement have the potential to impose significant impacts. The San Gabriel River watershed has significant ecological importance for wildlife using the area and provides a transition between fragmented habitats in the region. Proposed Action would be removal of shoaling along the southeast bank of the San Gabriel River. It is not anticipated to cause a physical impediment to or block any known movement pathways. As the permanent project footprint ranges between 20-40 feet wide in the channel, the project would not constrict wildlife movement. Furthermore, implementation of avoidance/minimization and offsetting measures developed as part of the Proposed Action would ensure that impacts to wildlife movement corridors and habitat linkages in the project area would not result in significant impacts to wildlife movement. Lighting plans would be developed to avoid impacts to residents and wildlife if night work is required. Therefore, the Proposed Action would not cause a substantial impedance to the movement of wildlife.

4.4.2.1 ***No Action Alternative***

The Proposed Action would not be implemented, and the sediment removal project would be not be constructed. Potential effects to biological resources would stay the same as pre-existing, however scouring of the levee would continue and potential damages to the levee would increase and require repair which may ultimately require a larger disturbance area than the Proposed Action.

4.4.3 SUMMARY OF SIGNIFICANCE THRESHOLDS RELATED TO THE PROPOSED ACTION

The Proposed Action cause a substantial adverse effect on a population of a threatened, endangered, or candidate species or substantial modification of designated critical habitat for a listed species; cause a substantial net loss in the habitat value of a sensitive biological habitat or area of special biological significance; cause a substantial impedance to the movement or migration of fish or wildlife; cause a substantial loss to the population of any native fish, wildlife, or vegetation; cause a substantial adverse effect on a population of special-status species; and/or cause a substantial loss in overall diversity of the ecosystem. Therefore, potential effects to biological resources would be less than significant.

4.5 CULTURAL RESOURCES

Under NEPA, significance is determined based on 'potentially affected environment' and 'degree'. For cultural resources, the potentially affected environment is viewed in terms of how important the resource may or may not be, while degree is viewed in terms of the severity of the impacts to the resource. While cultural resources that are not eligible for the National Register of Historic Places (National Register) are still considered as part of the NEPA review, once that resource fails to meet the criteria for eligibility for inclusion on the National Register its potentially affected environment is found to be lacking. The phrase "adverse effect" (NHPA) and "significant impact" (used in NEPA) are not equivalent terms but are similar in concept. Under the NHPA, impacts to cultural resources are typically examined in terms of how the project would affect the characteristics that make the property eligible for the National Register. Such impacts are referred to as adverse effects in the NHPA's implementing regulations (36 CFR 800.5).

4.5.1 SIGNIFICANCE THRESHOLD

Impacts would be considered significant if the alternative (or "undertaking") would result in:

- A substantial adverse effect to a historic property such that the implementation of the alternative would result in the destruction of a historic property or the loss of a property's listing in or eligibility for listing in the National Register of Historic Places, such as:
    - The loss of a historic property's eligibility status under criteria A-C due to remaining effects even after minimization and mitigation
    - The destruction of a site eligible under criterion D of 36 C.F.R. 60.4 with no resolution of adverse effects (generally mitigation through data recovery, or other negotiated resolution).
- Disturbance to any human remains, including those interred outside formal cemeteries.
- A major modification of a National Historic Landmark or a property meeting the criteria of a National Historic Landmark as defined in 36 C.F.R. 65.4(a) and (b).

4.5.2 ENVIRONMENTAL CONSEQUENCES

4.5.2.1 *Proposed Action Alternative*

Most of this area is previously disturbed, located within an active stream channel, and no archaeological resources have been recorded or are likely to occur within this area. Sediments to be removed would not extend below the original design elevation of the channel invert (the top of the toe) across the entire width of the San Gabriel River at this location in the river channel. Although the proposed undertaking is

within a levee segment that may contribute to the eligibility of the SGRFCS, the removal of accumulated sediment and vegetation would not alter in any substantive way the qualities and characteristics of a historic property, nor pose measurable visual effects to the larger resource. Substantial adverse effects to historic properties, major modification of a National Historic Landmark and disturbance of human remains are not anticipated to occur as the removal of accumulated sediment and vegetation will not result in alterations of qualities or characteristics of the history property and no archeological resources have been recorded or are likely to occur within this area.

4.5.2.2 *No Action Alternative*

Under the No Action Alternative, no sediment or vegetation would be removed, nor would any invasive plant mitigation occur. Significant impacts to historic properties may occur under the No Action Alternative if the shoaling and impinged flows at the confluence of San Jose Creek and San Gabriel River continue unchanged, and flows continue to actively scour and undermine the levee embankment, putting it at risk of failing. Although the San Gabriel River levee has not been determined eligible for listing on the NRHP, the SCRFCG is considered NRHP eligible under criterion A and continued neglect and the resulting damage could result in an adverse effect under the NRHP and a significant impact under NEPA.

4.5.3 SUMMARY OF SIGNIFICANCE THRESHOLDS RELATED TO THE PROPOSED ACTION

The Proposed Action would not cause a substantial adverse effect to a historic property such that the implementation of the alternative would result in the destruction of a historic property or the loss of a property's listing in or eligibility for listing in the National Register; would not disturb any human remains; and/or cause a major modification of a National Historic Landmark or a property meeting the criteria of a National Historic Landmark as defined in 36 C.F.R. 65.4(a) and (b). Therefore, potential effects to cultural resources would be less than significant.

4.6 AESTHETICS

4.6.1 SIGNIFICANCE THRESHOLD

Impacts would be considered significant if the alternative results in:

- a substantial adverse effect on a scenic vista;
- substantial degradation of the existing visual character or quality of the site and its surroundings.

4.6.2 ENVIRONMENTAL CONSEQUENCES

4.6.2.1 *Proposed Action Alternative*

Removal of the accumulated materials would require approximately three excavators, two loaders, and dump trucks to work within the channel invert. Thus, earthmoving equipment with highly visible paint schemes and colors would be temporarily present in the area for the duration of maintenance.

Removal of accumulated material in the project limits footprint would result in the removal of all vegetation within the channel. Thus, subsequent to maintenance, the channel invert at the San Gabriel River and San Jose Creek confluence, within the project limits footprint, would be devoid of heterogeneous forms and textures as well as a natural color palette associated vegetation and replaced

with a homogeneous earthen environment with various hues of beige and brown. The non-native species removal mitigation efforts would result in some vegetation removal but would encourage the enhancement of native vegetation growth. Vegetation would not be impacted adjacent to the project vicinity. Thus, impacts would be minimal when considering the project area relative to the rest of the channel and its visual heterogeneity associated with shrub vegetation. Large structures that could obstruct views of the major visual elements would not be constructed. Therefore, substantial degradation of the existing visual character or quality of the site and its surroundings would not occur. There would be no substantial adverse effect on the scenic vista because the visual heterogeneity associated with shrub vegetation would largely remain considering the existing in-channel vegetation within the project area. Therefore, impacts would be less than significant.

4.6.2.2 *No Action Alternative*

Under the No Action Alternative, accumulated material from the Proposed Project Area would not be removed. The vegetation growing atop the sandbar would remain in place. The existing aesthetics would remain unchanged.

4.6.3 SUMMARY OF SIGNIFICANCE THRESHOLDS RELATED TO THE PROPOSED ACTION

The Proposed Action would not cause a substantial adverse effect on a scenic vista or a substantial degradation of the existing visual character or quality of the site and its surroundings. Therefore, impacts to aesthetics would be less than significant.

4.7 RECREATION

4.7.1 SIGNIFICANCE THRESHOLD

Impacts would be considered significant if the alternative results in:

- a substantial or permanent decrease in existing use, quality, or availability of recreational areas

4.7.2 ENVIRONMENTAL CONSEQUENCES

4.7.2.1 *Proposed Action Alternative*

Approximately 127,000 cy of accumulated material would be removed from the channel, and approximately 20.7 acres of non-native species removal mitigation will take place. Two recreational trails are present within general area where maintenance would occur. The maintenance road, which has a secondary use as a multi-use path, is located atop of the channel embankment. In-channel construction activity would be located near the southern embankment. The project area coincides with the alignment of the San Gabriel River Trail- Eastern Bank LA County identified trail. The entirety of the trail is 4 miles long, stretching from its connection with the San Gabriel River Trail southwest of the project area within the Whittier Narrows Natural Area and ends at the confluence of the San Gabriel River and San Jose Creek. The project activities may temporarily impact the last 0.34 mile of the trail. Temporary closures of the maintenance road which serves as the San Gabriel River Trail- Eastern Bank as a multi-use path may be needed to ensure safety within the project area. The maintenance road would not be permanently impacted or altered by the project activities and may serve as access to the channel during construction. Public outreach concerning the project and its potential to impact the trail has specifically included

notification to the Whittier Narrows Equestrian Center and the Equestrian community within the area. Temporary signs would be posted notifying the public of the upcoming maintenance activities within the area. The San Gabriel River Trail, which is located on the northern bank of the San Gabriel River, would not be impacted by the project. This multi-use trail services over 35 miles of recreation and is less than 0.12 miles from the project area, connecting with the San Gabriel River Trail – Eastern Bank to the west. Though temporary access of the multi-use path may be restricted during maintenance activities due to safety, permanent impacts of the multi-use path are not anticipated, and other available recreation activities within the immediate project vicinity would not be impacted.

Post-maintenance, the Proposed Action would not require permanent closure of existing Los Angeles County identified trails (**Figure 4.7-1**, and **Table 4.7-1**) (Trails 2021). However, non-sanctioned recreational use within the channel may be permanently impacted by the sediment and vegetation removal activities. The other nearby recreational areas include the Whittier Narrows Equestrian Center, the Whittier Narrows Natural Area and the California County Club golf course. The Proposed Action would not affect these or any other additional recreational activities.

List of LA County Trails Near the San Gabriel River and San Jose Creek Confluence
San Jose Creek Trail
San Gabriel River Trail
San Gabriel River Trail – Eastern Bank

Table 4.7-1 LA County Trails within the area of the San Gabriel River and San Jose Creek Confluence

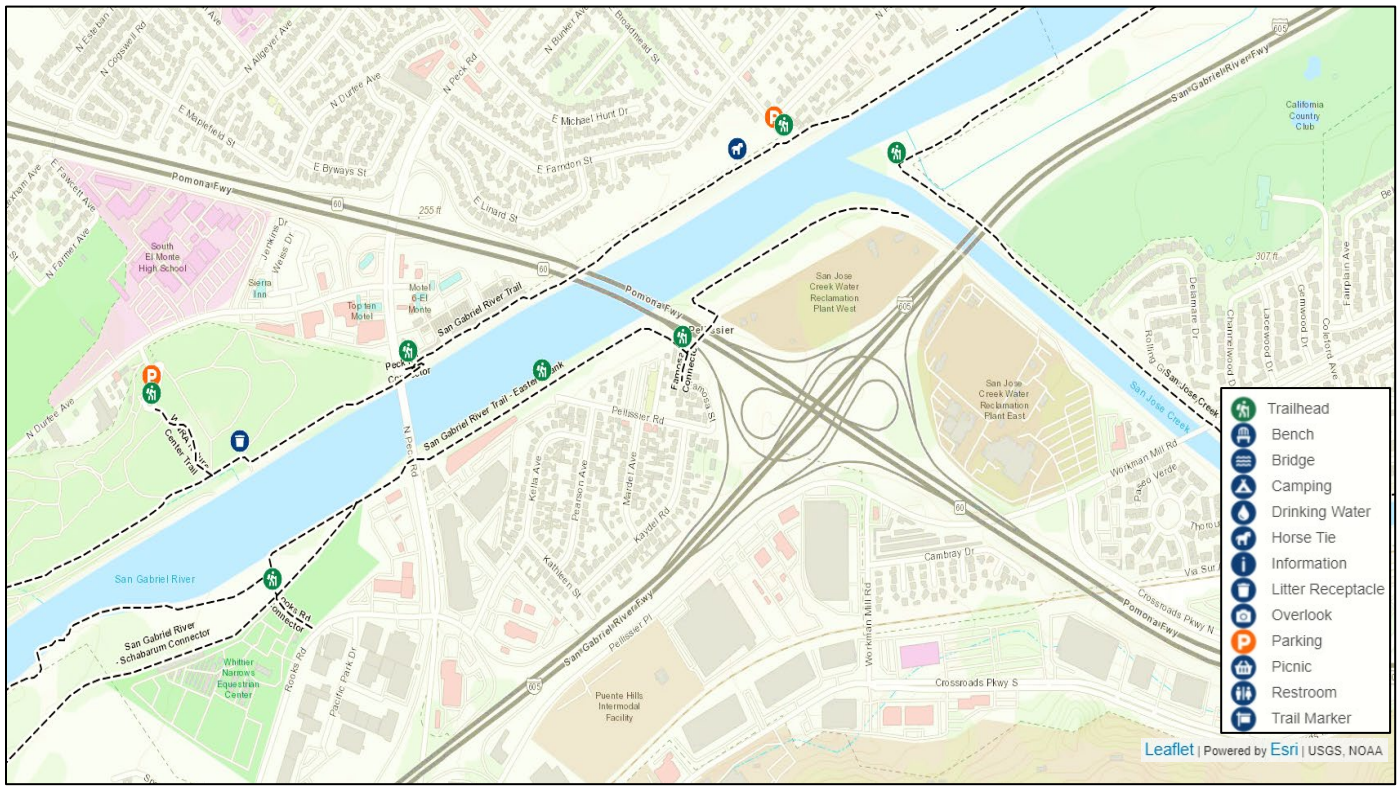

Figure 4.7-1 Locations of LA County Trails near the Confluence of the San Gabriel River and San Jose Creek

4.7.2.2 *No Action Alternative*

Under the No Action Alternative, accumulated material from the Proposed Project Area would not be removed. There would be no impacts to recreation.

4.7.3 SUMMARY OF SIGNIFICANCE THRESHOLDS RELATED TO THE PROPOSED ACTION

The Proposed Action would not cause a substantial or permanent decrease in existing use, quality, or availability of recreational areas. Therefore, potential effects to recreation are considered less than significant.

4.8 NOISE

4.8.1 SIGNIFICANCE THRESHOLD

Impacts would be considered significant if the alternative:

- Creates a long-term increase in noise levels above ambient noise levels by 5 dBA

4.8.2 ENVIRONMENTAL CONSEQUENCES

4.8.2.1 *Proposed Action Alternative*

Earthmoving equipment such as loaders and excavators would operate within the channel invert. Furthermore, haul trucks would enter and exit the channel to remove excavated material. Non-native species removal mitigation efforts will utilize hand tools including cutters, weed whackers and chain saws.

Sound levels associated with earthmoving equipment and haul trucks at 50 feet are approximately 80 dBA and 76 dBA, respectively. The rate atmospheric sound attenuation is approximately 6 dBA for every doubling of distance from a noise source. For residential areas on the north of the embankment and located approximately 250 feet away, sound levels based solely on atmospheric attenuation would be approximately 68 dBA and 64 dBA for respectively for haul trucks and earthmoving equipment within the channel. In addition to atmospheric attenuation, the embankments would function as a sound barrier for equipment working within the channel invert, further reducing levels. Furthermore, sound levels for residential areas are influenced by traffic on the Pomona Freeway (SR-60), the San Gabriel River Freeway (I-605), freeway off-ramps, and operations from industrial land uses. Noise from in-channel construction activities may not be distinguishable from ambient noise levels. Additionally, noise impacts would be temporary in nature and only during hours of operation, thus the Proposed Action would not cause long-term increases in noise levels about ambient noise levels by 5 dBA.

4.8.2.2 *No Action Alternative*

Under the No Action Alternative, accumulated material from the Proposed Project Areawould not be removed. There would be no noise associated with earthmoving equipment and haul trucks. Ambient noise levels would remain unchanged.

4.8.3 SUMMARY OF SIGNIFICANCE THRESHOLDS RELATED TO THE PROPOSED ACTION

The Proposed Actin would not create a long-term increase in noise levels above ambient noise levels by 5

dBA. Therefore, impacts to noise would be less than significant.

4.9 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

The significance of population and expenditure impacts are assessed in terms of their direct effect on the local economy and related effect on other socioeconomic resources (e.g., housing).

4.9.1 SIGNIFICANCE THRESHOLD

Impacts would be considered significant if the alternative results in:

- substantial shifts in population trends or adversely affect regional spending and earning patterns
- disproportionately high and adverse human health or environmental impacts on minority and/or low-income populations

4.9.2 ENVIRONMENTAL CONSEQUENCES

4.9.2.1 *Proposed Action Alternative*

Removal of accumulated debris under this alternative would provide temporary employment to earthmoving equipment operators, and truck drivers. The work would not require additional housing for laborers since the project is readily within commuting distance from most parts of Los Angeles County. Due to the short duration, the work to be performed would not result in substantial shift in population, housing, and employment. Furthermore, the work would not entail the construction of infrastructure or utilities that would result in growth of the surrounding area, nor would the work increase capacity of existing infrastructure that would induce growth. The work would not lead to a substantial shift in population, housing, and employment. Impacts would be less than significant.

Off-site transport of accumulated material would result in a temporary increase in truck traffic along San Fernando Road. There would be temporary increase in emission of particulate matter PM 2.5. However, the estimated PM 2.5 emission of .027 tons per year (approximately 0.81 tons per project duration) would not exceed the USEPA general conformity applicability rate of 70 tons per year. Levels of PM 2.5 emissions along San Fernando Road would return to pre-project levels upon completion of construction. Furthermore, the work would not entail the construction of infrastructure or utilities that would result in growth of the surrounding area, nor would the work increase capacity of existing infrastructure that would induce growth. In addition, the Alternative would not result in changes to land uses that could increase exposure to environmental conditions that may affect respiratory health. Last, neighborhoods and cities adjacent to the project area are also highly urbanized and share the approximately same demographic characteristics. Thus, the temporary increase in truck traffic and emissions would not result in disproportionately high and adverse human health or environmental impacts on minority or low-income populations. Impacts are anticipated to be less than significant.

4.9.2.2 *No Action Alternative*

Under the No Action Alternative, accumulated material from the Proposed Project Area would not be removed. There would be no short-term economic benefits associated with temporary construction work. There would be no temporary emissions from the use of earthmoving equipment and dump trucks.

4.9.3 SUMMARY OF SIGNIFICANCE THRESHOLDS RELATED TO THE PROPOSED ACTION

The Proposed Action would not cause substantial shifts in population trends or adversely affect regional spending and earning pattern. Additionally, there would not be disproportionately high and adverse human health or environmental impacts to minority or low-income communities as a result of implementation of the Proposed Action. Impacts to socioeconomics and environmental justice would be less than significant.

4.10 PUBLIC SERVICES AND UTILITIES

4.10.1 SIGNIFICANCE THRESHOLD

Impacts would be considered significant if the alternative results in:

- an increase to the size of the population and geographic area served, the number and type of calls for service, physical development, or an increase in demand for service that could result in capacity constraints to existing public service and utilities providers.

4.10.2 ENVIRONMENTAL CONSEQUENCES

4.10.2.1 *Proposed Action Alternative*

Construction activities could result in a temporary increase in the potential of safety and health hazards, which could increase the need for police and/or fire services due to accidents caused by construction personnel or equipment. To avoid and minimize potential risks associated with safety and health hazards, the contractor would be required to comply with safety and health standards as outlined in Engineering Manual 385-1-1, which describes stringent safety and occupational health standards required by all Corps activities and operations. As a standard Corps practice to alleviate fire hazards, a water truck is always present during construction activities. Implementation of BMPs to reduce the risk of hazards could include development of an accident prevention plan, identification of a site safety and health officer, and regular work-site safety inspections. Additionally, although the Proposed Action could have the potential to result in a temporary increase in police and fire service calls, this increase would be short-term and would not result in a significant, permanent demand on fire or police facilities serving the project area.

The Proposed Action would also not create added pressures on the public service system. As described in the Socioeconomics section (section 4.10), a majority of the construction-related jobs are expected to be filled by both currently employed and unemployed labor force participants from the surrounding area, and construction of the Proposed Action would not increase the region's population.

The Proposed Action would also not substantially impact water supply. Water would be required for dust abatement and cleaning of construction equipment. The amount of water required would depend on weather conditions, road surface conditions, and other site-specific conditions. However, water use for the Proposed Action would not affect availability of water for the local population or other needs of the community.

The Proposed Action would not substantially change any wastewater generated. Wastewater generated during construction would be limited to that generated by project personnel and would be accommodated by portable toilets brought to staging areas for construction crews. These portable toilets would be emptied into septic tanks or municipal sewage systems. Because this increase would be short-

term and temporary, wastewater generated during project construction is not expected to significantly impact the capacity of cities of South El Monte and Avocado Heights in providing wastewater services to the project area.

The Proposed Action would not substantially change any solid waste generated. Organic materials, trees, shrubs, and abandoned timber structures, would be disposed of by hauling to a commercial site. Disposal of these materials by burning or burying at the proposed project site would not be permitted. Inorganic materials would include, but are not limited to, rubble and other types of construction materials. As described in Section 2, the American Bin Company will be used for disposal. Because the exact amount of material recycling is unknown, the total amount of waste requiring landfill disposal is unknown. Recycling activities would greatly reduce the quantity of construction-related materials transported to local landfills. It is assumed that the amount of construction waste would be a small percentage of the maximum daily throughput for the American Bin Company. Therefore, construction waste generated by the Proposed Action would not substantially affect the remaining capacities of local landfills to serve local demands.

No utilities are known to occur, or will be impacted, within the project area. Prior to maintenance, a DigAlert would be conducted to confirm no underground utilities are located in the project area. Any utilities discovered within the vicinity of project limits would either be relocated or removed prior to or during maintenance or protected in place.

4.10.2.2 *No Action Alternative*

Under the No Action Alternative, vegetation and sediment removal would not occur and maintenance-related impacts or temporary increases in public services or utilities demand would not occur. Therefore, there would be no significant impact to public services and utilities.

4.10.3 SUMMARY OF SIGNIFICANCE THRESHOLDS RELATED TO THE PROPOSED ACTION

The Proposed Action would not cause an increase to the size of the population and geographic area served, the number and type of calls for service, physical development, or an increase in demand for service that could result in capacity constraints to existing public service and utilities providers.

4.11 TRANSPORTATION

4.11.1 SIGNIFICANCE THRESHOLD

Impacts would be considered significant if the alternative results in:

- an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

4.11.2 ENVIRONMENTAL CONSEQUENCES

4.11.2.1 *Proposed Action Alternative*

The Proposed Action entails excavating approximately 127,000 cy of accumulated sand, cobbles, and boulders from the San Gabriel River and San Jose Creek and transport of accumulated material for off-site disposal. Using 12 cy to 14 cy haul trucks, approximately 8,467 round trips in total over the course of 3

years would be required to remove the accumulated material, with approximately 70 trips per day when construction is occurring. In addition, approximately 30 construction workers would commute daily to the site, resulting in 30 one-way trips per day to local roadways and freeways. In total, approximately 100 one-way trips per day would be added to local roadways and freeways during construction. Traffic levels would return to baseline levels upon completion of maintenance. Maintenance related traffic would account for a minor increase in traffic in relation to the existing traffic load and capacity of utilized roadways.

4.11.2.2 *No Action Alternative*

Under the No Action Alternative, accumulated material from the Proposed Project Area would not be removed. There would be no additional traffic on roadways and freeways associated with hauling operations.

4.11.3 SUMMARY OF SIGNIFICANCE THRESHOLDS RELATED TO THE PROPOSED ACTION

The Proposed Action would not result in an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections). Therefore, potential effects to traffic are considered less than significant.

4.12 HAZARDOUS MATERIALS

4.12.1 SIGNIFICANCE THRESHOLD

Impacts would be considered significant if the alternative results in:

- a potential public health hazard involving the use, production, or disposal of materials, which pose a hazard to people or animal or plan population in the area affected; or
- a substantial hazard to the public or the environment through reasonably foreseeable upset and accident condition involving the release of hazardous materials into the environment

4.12.2 ENVIRONMENTAL CONSEQUENCES

4.12.2.1 *Proposed Action Alternative*

Small quantities of hazardous materials would be stored, used, and handled during construction of the Proposed Action, including petroleum hydrocarbons and their derivatives (e.g., diesel, gasoline, oils, lubricants, and solvents) to operate the construction equipment. These materials would be contained within vessels engineered for safe storage. Storage of substantial quantities of these materials along the embankment is not anticipated. Furthermore, construction vehicles may require on-site fueling, or routine or emergency maintenance that could result in the release of oil, diesel fuel, transmission fluid or other materials; however, the materials would not be used in quantities or stored in a manner that would pose a significant hazard to the public or the workers themselves. Therefore, the Proposed Action would not cause a potential public health hazard involving the use, production, or disposal of materials, which pose a hazard to people or animal or plan population in the area affected.

The potential for an accidental release of toxic materials from maintenance vehicles (e.g., oil and diesel fuel) would be mitigated by the fueling and servicing of construction vehicles in protected areas so that

fluids would be contained within an isolated or impervious area a safe distance from the active flow path. Spills or leaks would be cleaned up immediately, and any contaminated soil would be disposed of properly. As standard Corps practice to alleviate fire hazards, a water truck is always present during construction activities. In addition, Corps construction projects must comply with the fire prevention and protection practices set forth in the Corps' Safety and Health Requirements Manual (EM 385-1-1). The provisions of EM 385-1-1 are incorporated into all Corps construction specifications, and the contractor is required to prepare a fire prevention and protection plan for the construction project. Therefore, hazards to the public or the environment through reasonably foreseeable upset and accident condition involving the release of hazardous materials into the environment would not be substantial.

4.12.2.2 *No Action Alternative*

Under the No Action Alternative, accumulated material from the Proposed Project Area would not be removed. Existing contaminants within the accumulated material would remain. However, erosion and sedimentation processes during storm flows could change the concentration and location of contaminants. Nuisance flows and storm flows that enter the San Gabriel River through major storm outfalls would continue to convey pollutants associated with the urban environment into the water column. These compounds are expected to present within the soils and the water column at various concentrations.

4.12.3 SUMMARY OF SIGNIFICANCE THRESHOLDS RELATED TO THE PROPOSED ACTION

The Proposed Action would not a potential public health hazard involving the use, production, or disposal of materials, which pose a hazard to people or animal or plan population in the area affected; or a substantial hazard to the public or the environment through reasonably foreseeable upset and accident condition involving the release of hazardous materials into the environment. Therefore, potential effects related to hazardous materials would be considered less than significant.

5 ENVIRONMENTAL COMMITMENTS

Environmental commitments include project design features and best management practices that are incorporated into the project description of an alternative to avoid and/or reduce potential impacts. The following environmental commitments have been incorporated into the Proposed Action for the purposes of minimizing environmental effects.

Air Quality

AQ-1 The project contractor shall retard diesel engine injection timing by two degrees before top center on all construction equipment that was manufactured before 1996, and which does not have an existing IC engine warranty with the manufacturer. The contractor shall provide a certification from a third-party certified mechanic prior to start of construction, stating the timing of all diesel-powered construction equipment engines have been retarded two degrees before top center.

AQ-2 The project contractor shall use high-pressure injectors on all diesel engines that were manufactured before 1996, and which do not have existing IC engine warranties with the manufacturer. The contractor shall provide documentation of warranty and manufacture date or a certification from a third-party certified mechanic stating that all diesel construction

equipment engines are utilizing high-pressure fuel injectors.

AQ-3 The project contractor shall use Caterpillar pre-chamber diesel engines or equivalent and perform proper maintenance and operation.

AQ-4 The project contractor shall electrify equipment, where feasible.

AQ-5 The project contractor shall restrict the idling of construction equipment to 10 minutes.

AQ-6 The project contractor shall ensure that equipment will be maintained in proper tune to prevent visible soot from reducing light transmission through the exhaust stack exit by more than 20 percent for more than 3 minutes per hour and use low-sulfur fuel.

AQ-7 The project contractor shall use catalytic converters on all gasoline equipment (except for small [2-cylinder] generator engines). If this measure is not implemented, emissions from gasoline equipment shall be offset by other means (e.g., Emission Reduction Credits).

AQ-8 The project contractor shall cease construction during periods of high ambient ozone concentrations (i.e., Stage 2 smog alerts) near the construction area.

AQ-9 The project contractor shall schedule all material deliveries to the construction site outside of peak traffic hours, and minimize other truck trips during peak traffic hours.

AQ-10 The project contractor shall use only solar powered traffic signs (no gasoline-powered generators shall be used).

The following measures will be implemented to reduce construction emissions of PM10:

AQ-11 The project contractor shall enclose, cover, water twice daily, or apply non-toxic soil binders according to manufacturers' specifications to exposed stockpiles (i.e., gravel, sand, dirt) with 5 percent or greater silt content.

AQ-12 In areas where dewatering is not required, the project contractor shall water active grading/excavation sites at least twice daily.

AQ-13 The project contractor shall increase dust control watering when wind speeds exceed 15 miles per hour for a sustained period of greater than 10 minutes, as measured by an anemometer. The amount of additional watering would depend upon soil moisture content at the time; but no airborne dust should be visible.

AQ-14 The project contractor shall suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph (40 kph).

AQ-15 The project contractor shall ensure that trucks hauling dirt on public roads to and from the site are covered and maintain a 50 mm (2 in) differential between the maximum heights of any hauled material and the top of the haul trailer. Haul truck drivers shall water the load prior to leaving the site to prevent soil loss during transport.

AQ-16 The Corps shall ensure all heavy equipment is maintained in a proper state of tune as per the manufacturer's specifications.

AQ-17 The project contractor shall sweep streets in the project vicinity once a day if visible soil material is carried to adjacent streets.

AQ-18 The project contractor shall install wheel washers where vehicles enter and exit unpaved roads onto paved roads or wash off trucks and any equipment leaving the site each trip.

AQ-19 The project contractor shall apply water three times daily or apply non-toxic soil stabilizers according to manufacturers' specifications to all unpaved parking, staging areas, or unpaved road surfaces.

AQ-20 The project contractor shall ensure that traffic speeds on all unpaved roads to be reduced to 15 mph or less.

Biological Resources

BR-1 The Corps shall conduct presence/absence surveys during the nesting seasons that entails surveys for least Bell's vireo (April 10 - July 31) and Coastal California gnatcatcher (March 15 - June 30) in spring and early summer during construction. The survey information will be provided to USFWS on an annual basis.

BR-2 The Corps biologist (or environmental monitor) will monitor construction activities at initiation of construction and weekly checks to ensure compliance with environmental commitments.

BR-3 The contractor shall clear sediment and vegetation associated with project construction within potential vireo habitat only during period when least Bell's vireo and coastal California gnatcatcher are not nesting (avoidance from March 1 – September 15).

BR-4 The Corps will enhance two acres of least Bell's vireo habitat (through non-native removal) for each acre of wetland/riparian habitat permanently impacted by the Proposed Action. This will equate to 18-acres of passive restoration/enhancement to compensate for 9 acres of permanent impacts to least Bell's vireo territories utilizing suitable riparian habitat. The 2:1 ratio for riparian/wetland habitat impacts and 1:1 for non-native vegetation assumes that the enhancement area will be actively maintained for a 10-year period, for a total of 20.2 acres of enhancement. Exotic/invasive removal of plant species will only occur during periods when least Bell's vireo and coastal California gnatcatcher are not nesting (nesting period is from March 1 – September 15).

BR-5 Construction personnel will strictly limit their activities, vehicles, equipment, and construction materials to designated construction boundaries, including staging areas or routes of travel. The construction area(s) will be the minimal area necessary to complete the Proposed Action and will be specified in the construction plans. Highly visible barriers (such as orange construction fencing) will be installed around all riparian and sensitive habitats adjacent to the project limits footprint to designate limits of construction activities. These barriers will be maintained until the completion of all construction activities and removed at the completion of the project.

BR-6 Prior to construction activities, a Corps qualified biologist (or environmental monitor) shall conduct pre-construction environmental training for all construction crew members. The training shall focus on required avoidance/minimization measures and conditions of regulatory agency permits and approvals. The training shall also include a summary of sensitive species and habitats potentially present within the project area.

BR-7 Prior to any ground-disturbing activities (e.g. mechanized clearing or rough grading) for all project-related construction activities, a qualified biologist shall conduct pre-construction surveys of the project area for special-status wildlife species. During these surveys the biologist will:

a. Inspect the project area for any sensitive wildlife species.
b. In the event of the discovery of a non-listed, special-status ground-dwelling animal, such as a burrowing owl or special-status reptile, attempts will be made to recover and relocate the animal to adjacent suitable habitat within the project area at least 200 feet from the limits of construction activities. Burrowing owl surveys and relocations would follow established protocols;
c. The Corps will ensure the limits to construction are clearly marked.

BR-8 Best management practices shall be implemented to reduce impacts to native habitats, including the following:

a. All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other toxic substances will occur in developed or designated non-sensitive upland areas. These areas will implement BMPs to prevent runoff carrying toxic substances from entering the San Gabriel River or San Jose Creek. If a spill occurs outside of a designated area, the cleanup will be immediate and documented.
b. Fire suppression equipment including shovels, water, and extinguishers will be available onsite during the fire season (as determined by Los Angeles (LA) County Fire Department) and when activities may produce sparks. Emergency contacts for the LA County Fire Station No. 90 on 3207 Cogswell Road will be established.
c. To the extent feasible, the project contractor will prevent exotic weeds from establishing within the work site during construction. Construction equipment will be cleaned of mud or other debris prior to mobilizing and before leaving the site to reduce the potential spread of invasive plants and/or seeds.

Water Resources and Hydrology

WR-1 Comply with conditions of the Clean Water Act Section 401 Technically Conditioned Water Quality Certification (401 WQC) for the U.S. Army Corps of Engineers Los Angeles District, Operation, Maintenance, Repair, Replacement and Rehabilitation Activities Associated with the Los Angeles County Drainage Area Project System, Los Angeles County.

WR-2 Except for activities carried out under § 404 of the Clean Water Act, soil, silt, or other organic materials shall not be placed where such materials could pass into surface water or surface water drainage courses.

WR-3 The Corps shall maintain a copy of the Section 401 WQC and supporting documentation at the activity work site during work for review by site personnel and agencies. All personnel

(employees, contractors, and subcontractors) performing work/participating in described activity shall be adequately informed and trained regarding the conditions of the 401 WQC.

WR-4 Activities shall not cause visible oil, grease, or foam in the receiving water.

WR-5 Refueling of equipment within the waterway is prohibited.

WR-6 Equipment shall be staged outside of waters of the United States. Storage areas shall be provided with containment, including drip pans and/or placement of absorbent material.

WR-7 The Corps shall perform inspections of construction equipment prior to being utilized in surface waters to ensure leaks from the equipment are not occurring and are not a threat to water quality.

WR-8 The project contractor shall develop and maintain onsite a project-specific Spill Prevention Containment and Cleanup Plan outlining the practices to prevent, minimize, and/or clean up potential spills during construction of the project. The Plan must detail the project elements, construction equipment types and location, access and staging and construction sequence.

WR-9 Raw cement, concrete (or washing thereof), asphalt, drilling fluids, lubricants, paints, coating material, oil, petroleum products, or any other substances which could be hazardous to fish and wildlife resulting from or disturbed by project-related activities, shall be prevented from contaminating the soil and/or entering waters of the United States.

WR-10 Silt fencing, straw wattles, or other effective management practices must be used along the construction zone to minimize soil or sediment migrating into the waters of the United States through the entire duration of the project.

WR-11 All disturbed by project activities that could contribute to water quality impairment shall be protected from erosion.

WR-12 All materials resulting from the activity shall be removed from the site and disposed of properly.

WR-13 The Corps shall provide to the Regional Water Board a Notice of Completion (NOC) no later than 45 days after activity completion. The NOC shall demonstrate that the activity has been carried out in accordance with the activity description in the Notification and/or provide an explanation as to any deviations/modifications. The NOC shall include a map of the activity location(s) and representative pre-and post-construction photographs. Each photograph shall include a descriptive title, date taken, photographic site, and photographic orientation. The NOC will include all water quality data collected.

WR-14 The discharge of petroleum products, any construction materials, hazardous materials, pesticides, fuels, lubricants, oils, hydraulic fluids, raw cement, concrete, asphalt, paint, coating material, drilling fluids, or other construction-related potentially hazardous substances to surface water and/or soil is prohibited.

Noise

N-1 Maintenance activities shall occur between 7:00 a.m. and 7:00 p.m. Monday through Friday, and 8:00 a.m. to 7:00 p.m. on Saturday.

Cultural Resources

CR-1 In the event that previously unknown cultural resources are discovered during project construction within the Corps' area of potential effects, the project contractor shall cease all ground disturbing activities within thirty feet of the find and shall notify the Corps within 24 hours. The Corps shall follow the requirements stipulated at 36 CFR 800.13 regarding post-review discoveries. Construction within thirty feet of the find may not resume until the Corps has completed the requirements of 36 CFR 800.13.

6 COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS

The following section provides a brief summary of the laws, regulations, Executive Orders, and other guidelines that are relevant to the proposed project activities and alternatives. Included in this summary is a discussion of the consistency of the Proposed Action with each of the laws, policies, and regulations listed below.

The National Environmental Policy Act (NEPA)

This EA was prepared to evaluate impacts associated with the Proposed Action. If it is determined after public review that the Proposed Action will not have a significant impact upon the quality of the human environment, then a Finding of No Significant Impact will be prepared and preparation of an environmental impact statement would not be required.

National Historic Preservation Act (NHPA) of 1966, as amended

The Proposed Action is in compliance with the Act. Sediment and invasive plant removal, and maintenance activities were determined to have no adverse effect to historic properties pursuant to the National Historic Preservation Act. Consultation with the State Historic Preservation Officer is in progress.

Fish and Wildlife Coordination Act, as amended

The Proposed Action is in compliance. The San Gabriel River and San Jose Creek Vegetation and Sediment Removal Project has been fully coordinated with USFWS, CDFW, and other agencies. Numerous meetings have occurred between USFWS, CDFW, other resource agencies, and the Corps concerning the project. Discussions included potential impacts to, mitigation for, and minimization and avoidance measures for nesting birds covered under the Migratory Bird Treaty Act (MBTA); species covered under the Federal and California Endangered Species Act (such as the least Bell's vireo, coastal California gnatcatcher and designated critical habitat) and wildlife movement issues. Specific issues related to the Proposed Action were coordinated with the resource agencies. Furthermore, the draft EA will be posted for public notice which will allow USFWS, CDFW, and other resource agencies further review.

Bald and Golden Eagle Protection Act, as amended

The Proposed Action is in compliance. The Bald and Golden Eagle Protection Act of 1940 protects bald and golden eagles by prohibiting the taking, possession, and commerce of such birds and establishes civil penalties for violation of this Act. Take of bald and golden eagles is defined as follows: "disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior'' (72 FR 31132; 50 CFR 22.3).

On 10 November 2009, the USFWS implemented new rules (74 FR 46835) governing the "take" of golden and bald eagles. The new rules were released under the existing Bald and Golden Eagle Act which has been the primary regulation protection unlisted eagle populations since 1940. All activities that may disturb or incidentally take an eagle or its nest as a result of an otherwise legal activity must be permitted by the USFWS under this act. The definition of disturb (72 FR 31132) includes interfering with normal breeding, feeding, or sheltering behavior to the degree that it causes or is likely to cause decreased productivity or nest abandonment.

The Proposed Action will not affect birds protected under this Act. No nesting habitat will be affected, and no nests are known to occur in the vicinity.

The Endangered Species Act, as amended

The Endangered Species Act (ESA), and subsequent amendments, provide guidance for the conservation of endangered and threatened species and the ecosystems upon which they depend. Section 7 requires federal agencies, in consultation with, and with the assistance of the Secretary of the Interior or the Secretary of Commerce, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. Potential effects of the Proposed Action on federally listed species and on designated critical habitat are being addressed in a formal and informal consultation with USFWS. A Biological Assessment was prepared and is included in Appendix A. The Corps has determined that least Bell's vireo (*Vireo bellii pusillus*) may be adversely affected, and the California coastal gnatcatcher and its designated critical habitat is not likely to be adversely affected. Consultation with the USFWS is in progress.

Migratory Bird Treaty Act

The Proposed Action is in compliance. The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711) makes it unlawful to possess, buy, sell, purchase, barter or "take" any migratory bird listed in Title 50 of the Code of Federal Regulations Part 10. "Take" is defined as possession or destruction of migratory birds, their nests or eggs. Birds protected under the MBTA include essentially all native birds in a given region. Initial vegetation clearing must be conducted outside of the nesting bird season (avoidance period is March 15-September 30). Mitigation measures developed in this EA have been formulated to reduce impacts on migratory birds.

Clean Air Act, as amended

The Proposed Action is in compliance. Under Section 176(c) of the Clean Air Act Amendments (CAAA) of

1990, the Federal action agencies are required to make a determination of whether the proposed project "conforms" with the State Implementation Plan (SIP). Conformity is defined in Section 176(c) of the CAAA as compliance with the SIP's purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards (NAAQS) and achieving expeditious attainment of such standards. However, if the total direct and indirect emissions from the Proposed Action are below the General Conformity Rule applicability rates, the Proposed Action would be exempt from performing a comprehensive Air Quality Conformity Analysis and would be in conformity with the SIP. Emissions generated by the Proposed Project do not equal or exceed the General Conformity applicability rates.

Clean Water Act, as amended

The Proposed Action is in compliance with the guidelines in 40 CFR 230.10(c), promulgated by the U.S. Environmental Protection Agency (EPA) under Section 404(b)(1) of the Clean Water Act (CWA) Guidelines. The Proposed Action would affect potential WOTUS. See Section 4.1, Water Resources and Hydrology, for an analysis, accounting, and description of impacts to WOTUS related to the Proposed Action. The 404(b)(1) Evaluation can be found in Appendix C of the EA. The Corps has obtained a Clean Water Act Section 401 Technically Conditioned Water Quality Certification for the U.S. Army Corps of Engineers Los Angeles District, Operation, Maintenance, Repair, Replacement and Rehabilitation Activities Associated with the Los Angeles County Drainage Area Project System, Los Angeles County. The Corps has provided notification of the project in accordance with the 401 WQC. A copy of the 401 WQC and notification are included in Appendix D of this EA.

The project contractor will be required to obtain a National Pollution Discharge Elimination System (NPDES) construction stormwater permit (Section 402) and implement a SWPPP prior to construction should the area of disturbance outside WOTUS exceed one (1) acre of disturbance. An Erosion and Sedimentation Control Plan would be developed and implemented by the project contractor prior to and during construction to minimize site erosion.

Executive Order 11988, Floodplain Management

Under this Executive Order, the Corps must take action to avoid development in the base floodplain (100-year) unless it is the only practicable alternative to reduce hazards and risks associated with floods; to minimize the impact of floods on human safety, health and welfare; and to restore and preserve the natural and beneficial value of the base floodplain. The Proposed Project would avoid development in the flood basin to the extent practicable to reduce hazards and risks. The Proposed Action is in compliance.

Executive Order 11900, Protection of Wetlands

In developing alternatives, the Corps considered the effects of the proposed project on the survival and quality of wetlands. Projects are to "…avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative…" See Section 3.1.4 Jurisdictional Waters and Wetlands and 4.4, Biological Resources, for an accounting and description of WOTUS and habitat types related to the construction of the Proposed Action. Potential WOTUS were recorded in the project area, of which 9 acres are comprised of riparian vegetation. Wetlands were not identified within the project area. The Proposed Action is in compliance.

Executive Order 12898, Environmental Justice

Executive Order 12898 requires the EPA and all other Federal agencies (as well as state agencies receiving Federal funds) to develop strategies to address this issue as part of the NEPA process. The agencies are required to identify and address, as appropriate, any disproportionately high and adverse human health or environmental impacts of their programs, policies, and activities on minority and low-income populations. The order makes clear that its provisions apply fully to programs involving Native Americans. The CEQ has oversight responsibility for the Federal government's compliance with E.O. 12898 and NEPA. The CEQ, in consultation with the USEPA and other agencies, has developed guidance to assist Federal agencies with their NEPA procedures so that environmental justice concerns are effectively identified and addressed. According to the CEQ's Environmental Justice Guidance Under the National Environmental Policy Act (published December 10, 1997), agencies should consider the composition of the affected area to determine whether minority populations or low-income populations are present in the area affected by the Proposed Action, and if so whether there may be disproportionately high and adverse human health or environmental impacts (Council on Environmental Quality 1997). The project area includes minority population and low-income populations. See analysis in Appendix E. As discussed in Section 4, off-site transport of accumulated material would result in a temporary increase in truck traffic along San Fernando Road. There would be temporary increase in emission of particulate matter PM 2.5. However, the estimated PM 2.5 emission of 0.27 tons/yr would not exceed the USEPA general conformity applicability rate of 70 tons/yr. Levels of PM 2.5 emissions along San Fernando Road would return to pre-project levels upon completion of construction. Furthermore, the work would not entail the construction of infrastructure or utilities that would result in growth of the surrounding area, nor would the work increase capacity of existing infrastructure that would induce growth. In addition, the Alternative would not result in changes to land uses that could increase exposure to environmental conditions that may affect respiratory health. Last, neighborhoods and cities adjacent to the project area are also highly urbanized and share the approximately the same demographic characteristics. Thus, the temporary increase in truck traffic and emissions would not result in disproportionately high and adverse impacts on minority or low-income populations. The EA complies with the directives and objectives of this Executive Order.

Executive Order 13112, Invasive Species

The proposed project complies with Executive Order 13112, which requires federal agencies to prevent the introduction of invasive species; provide for their control; and minimize the economic, ecological, and human health effects that invasive species cause. The environmental protection standard specifications direct the contractor to implement measures to prevent the spread of invasive species. Mitigation measures developed in this EA have been formulated to reduce impacts from invasive species.

7 AGENCY COORDINATION

The Proposed Action was coordinated formally and informally with numerous agencies, organizations, and individuals, including USFWS, CDFW, State Parks (also known as California Department of Parks and Recreation), SHPO, LARWQCB, Caltrans, Los Angeles County agencies, and local cities. The Draft EA will be distributed to several public agencies and interested parties for review and comment as part of the Public Notice. Public comments received during the public comment period and responses will be provided in the Final EA.

8 LIST OF PREPARERS AND REVIEWERS

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