# FINDING OF NO SIGNIFICANT IMPACT

## SAN GABRIEL RIVER AND SAN JOSE CREEK CONFLUENCE SEDIMENT AND VEGETATION REMOVAL PROJECT LOS ANGELES COUNTY, CALIFORNIA

The U.S. Army Corps of Engineers, Los Angeles District (Corps) has conducted an environmental analysis in accordance with the National Environmental Policy Act of 1969, as amended. The Final Environmental Assessment (EA) dated August 2021, for the San Gabriel River and San Jose Creek Confluence Sediment and Vegetation Removal Project addresses the accumulated sediment and vegetation creating impinged river flow, scouring of the levee and exceedance the 15-degree entrance angle requirement for design of a channel confluence. The project is in the cities of South El Monte and Avocado Heights, Los Angeles County, California. 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 through the removal of accumulated excess sediment and vegetation.

The Final EA, incorporated herein by reference, evaluates two alternatives in detail: The No Action Alternative, under which no improvements would be made, and the accumulated excess sediment and vegetation would remain; and the Proposed Action Alternative, consisting of the removal of excess accumulated sediment and material and vegetation as part of operation and maintenance of the channel.

The Proposed Action Alternative is the recommended plan and includes:

- Removal of 127,000 cy of excess material
- Removal of 11.2 acres of vegetation
- Installation of up to three temporary access ramps to allow access into the channel, utilizing approximately 2,000 cy of excess sediment from the site or acceptable commercially available sources
- Potentially utilizing two staging areas, (1) approximately 0.23 acres and (2) approximately 0.16 acres in size
- Non-native species removal to offset permanent impacts consisting of 20.2 acres of passive restoration.

Potential effects were evaluated for both alternatives, as appropriate. A summary assessment of the potential effects of the recommended plan are listed in Table S-1:

**Table S-1: Summary of Potential Effects of the Recommended Plan**

| | Insignificant effects | Insignificant effects as a result of mitigation | Resource unaffected by action |
|---|---|---|---|
| Aesthetics | ☒ | ☐ | ☐ |
| Air quality | ☐ | ☒ | ☐ |
| Aquatic resources/wetlands | ☐ | ☐ | ☒ |
| Invasive species | ☐ | ☒ | ☐ |
| Fish and wildlife habitat | ☐ | ☒ | ☐ |
| Threatened/Endangered species/critical habitat | ☐ | ☒ | ☐ |
| Historic properties | ☐ | ☒ | ☐ |
| Other cultural resources | ☐ | ☐ | ☒ |
| Floodplains | ☐ | ☐ | ☒ |
| Hazardous, toxic & radioactive waste | ☐ | ☐ | ☒ |
| Hydrology | ☐ | ☒ | ☐ |
| Land use | ☐ | ☐ | ☒ |
| Noise levels | ☐ | ☒ | ☐ |
| Public infrastructure | ☒ | ☐ | ☐ |
| Socio-economics | ☒ | ☐ | ☐ |
| Environmental justice | ☒ | ☐ | ☐ |
| Soils | ☒ | ☐ | ☐ |
| Tribal trust resources | ☐ | ☐ | ☒ |
| Water quality | ☐ | ☒ | ☐ |
| Climate change | ☒ | ☐ | ☐ |

All practicable and appropriate means to avoid or minimize adverse environmental effects were analyzed and incorporated into the recommended plan, which include environmental commitments detailed in Section 5 of the Final EA. Of particular importance, sediment and vegetation removal will be performed outside of the least Bell's vireo and coastal California gnatcatcher nesting season (avoidance from March 1 – September 15), the Corps will enhance 20.2 acres of habitat through passive restoration/enhancement consisting of non-native species removal to be actively maintained for a 10-year period, pre-construction training will be required for all construction crew members to include a summary of sensitive species and habitats potentially present within the project area, and construction must comply with the conditions of the Clean Water Act Section 401 Technically Conditioned Water Quality Certification for the U.S. Amy 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.

Public notice of the project and the preparation of the EA was posted to the Corps' public website from June 9, 2021 to July 9, 2021. No comments were received.

Pursuant to section 7 of the Endangered Species Act of 1973, as amended, the United States Fish and Wildlife Service (USFWS) issued a biological opinion, dated August 10, 2021, that determined the recommended plan will not jeopardize the continued existence of the least Bell's vireo. All terms and conditions and conservation measures resulting from this consultation shall be implemented in order to minimize take of endangered species and avoid jeopardizing the species. Pursuant to section 7 of the Endangered Species Act of 1973, as amended, the Corps determined that the recommended plan may affect but is not likely to adversely affect the coastal California gnatcatcher and its designated critical habitat. The USFWS concurred with the Corps' determination on August 10, 2021. A copy of the biological opinion and letter of concurrence can be found in Appendix A of the Final EA.

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, the Corps determined that historic properties would not be adversely affected by the recommended plan. The State Historic Preservation Office concurred with this determination on June 10, 2021.

Pursuant to section 404 of the Clean Water Act of 1972, as amended, the discharge of dredged or fill material into waters of the United States associated with the recommended plan has been found to be compliant with the section 404(b)(1) Guidelines (40 CFR 230). The Clean Water Act section 404(b)(1) Guidelines evaluation can be found in Appendix C of the Final EA. The recommended plan is the least environmentally damaging practicable alternative.

A section 401 of the Clean Water Act was obtained from the California Regional Water Quality Control Board. A copy can be found in Appendix D of the Final EA. All conditions of the water quality certification shall be implemented to minimize adverse impacts to water quality.

The Corps has determined that a general conformity determination is not required for the recommended plan. The recommended plan complies with the requirements of Section 176(c) of the Clean Air Act.

All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives and coordination with appropriate agencies have been completed. Based on the EA, the reviews by other Federal, State and local agencies, Tribes, input of the public, and the review by my staff, it is my determination that the recommended plan would not have a significant effect on the quality of the human environment; therefore, preparation of an Environmental Impact Statement is not required.

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8/19/21
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DATE

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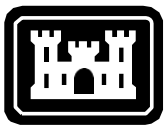
Julie A. Balten
Colonel, U.S. Army
Commanding

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

**County of Los Angeles, California**

## Final
## ENVIRONMENTAL ASSESSMENT



**US Army Corps of Engineers**

**Los Angeles District**

**August 2021**

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| List of Acronyms | |
|---|---|
| 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.

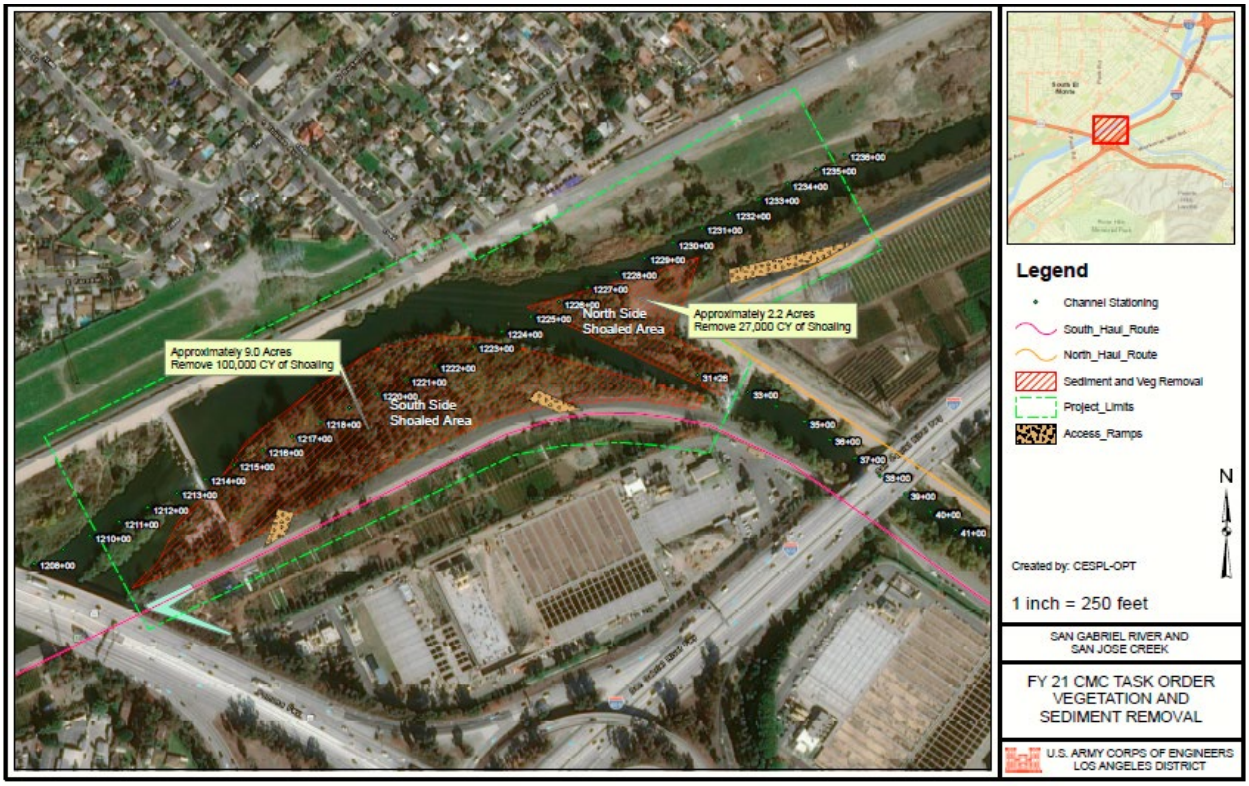


**Figure 1.1-1** Project Location. The proposed project boundary for sediment and vegetation removal, staging and access.

## 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.

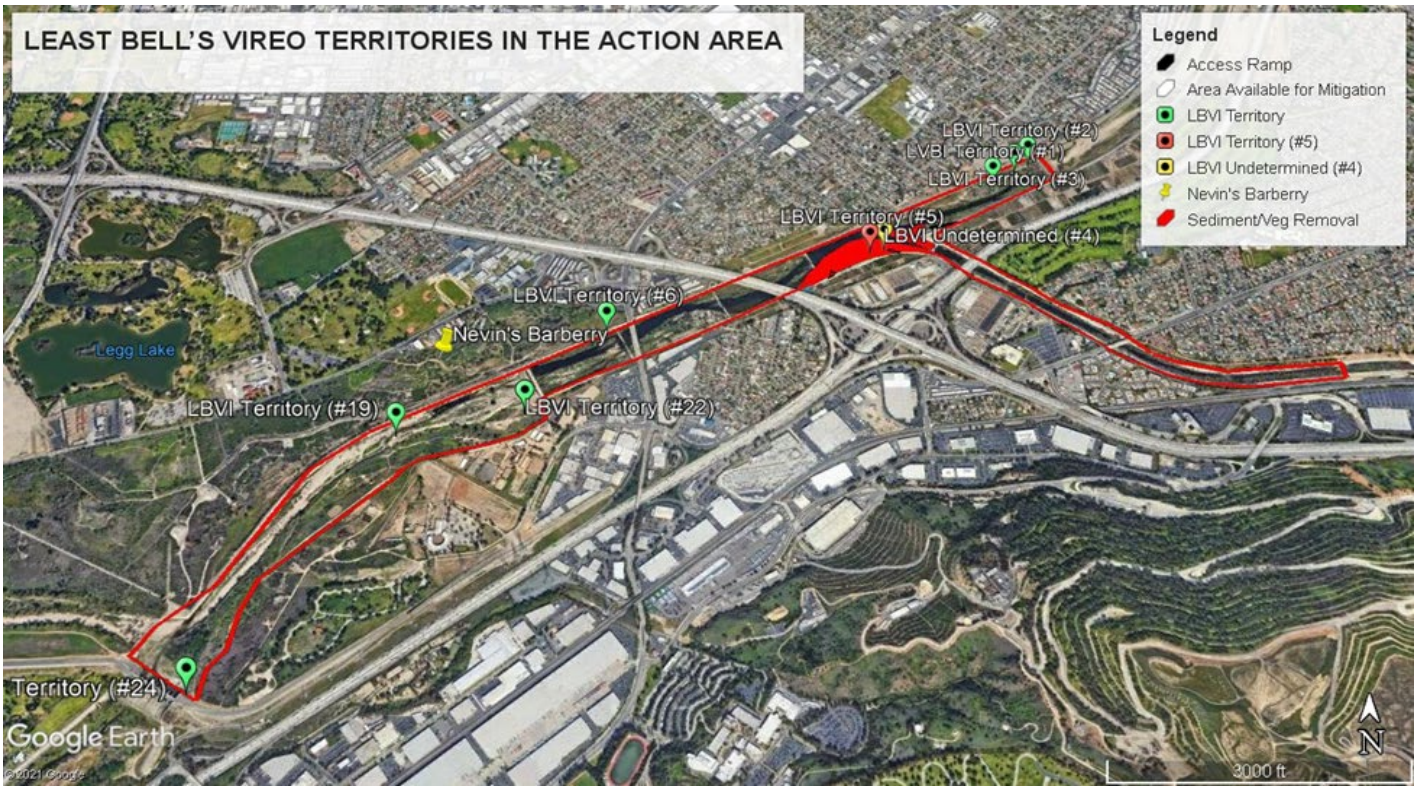


**Figure 1.4-2**. Proposed Project Area including Sediment and Vegetation Removal Activities, Staging Areas, Access Ramps, and Proposed Non-native Species Removal Mitigation. The Figure also displays Least Bell's Vireo territories within the Project Area.

# 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

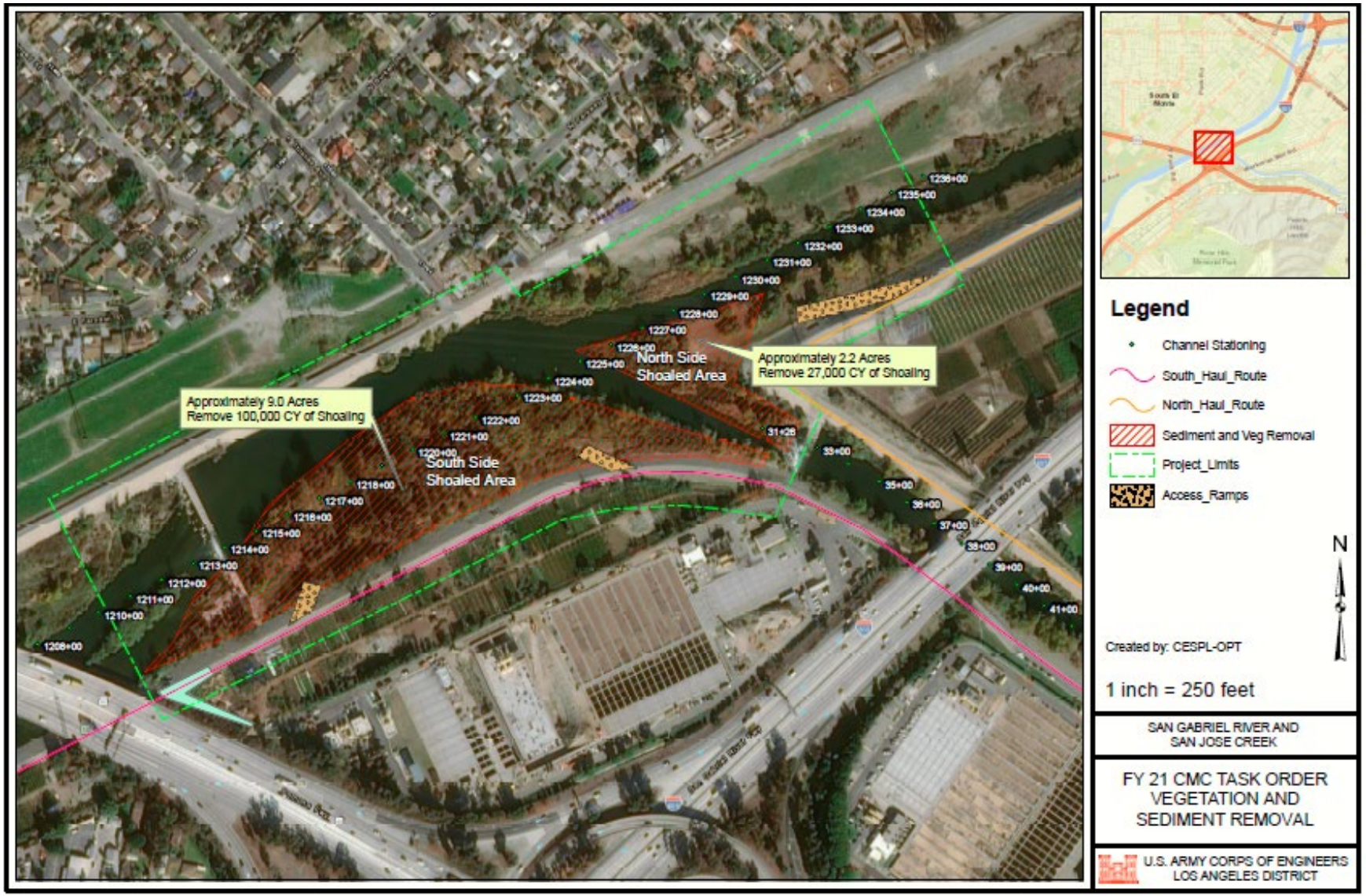


**Figure 2.1-1 Project Map of Work Limits-** The Proposed Action footprint limits include the Sediment and Veg Removal area, access ramps, and staging areas.

### 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**).

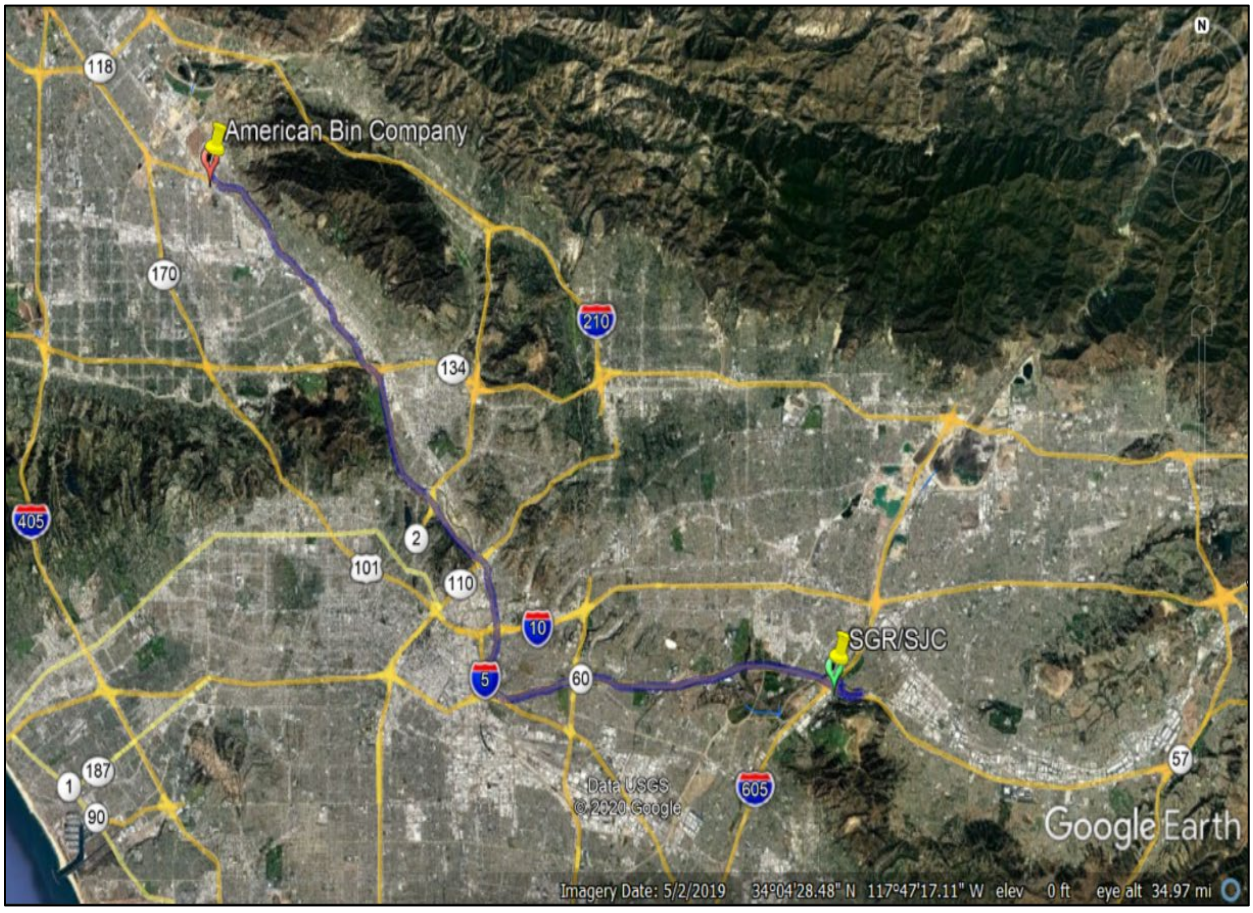


**Figure 2.1-4** Location of Commercial Landfill

### 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.

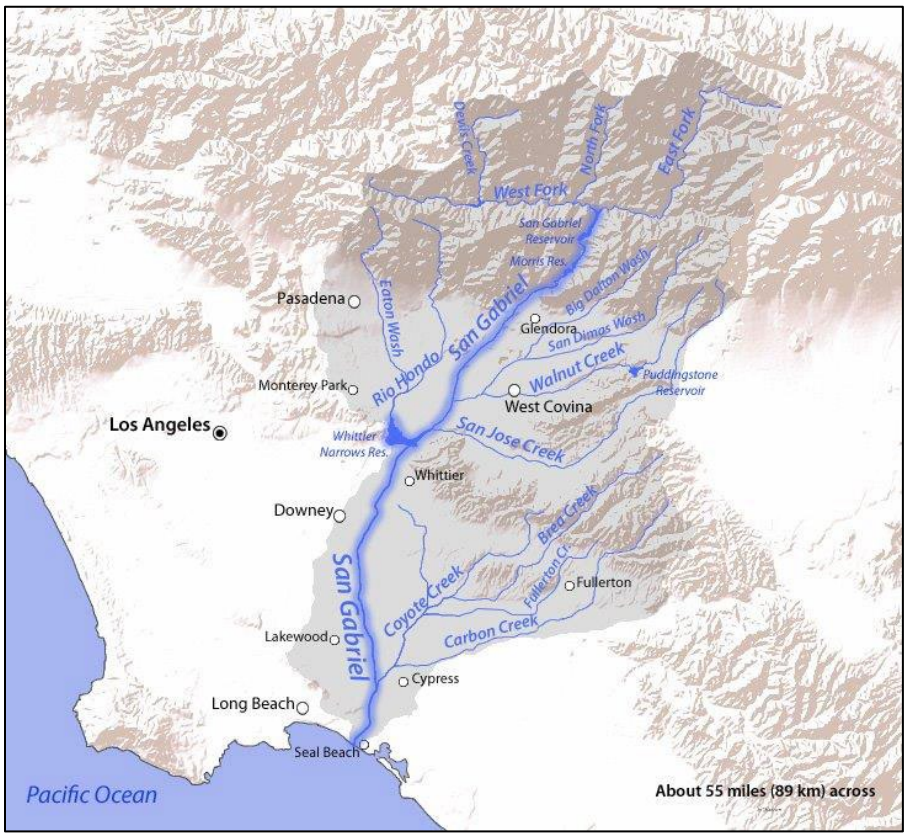


**Figure 3.1-1** Location of the San Gabriel River and San Jose Creek

### 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**.

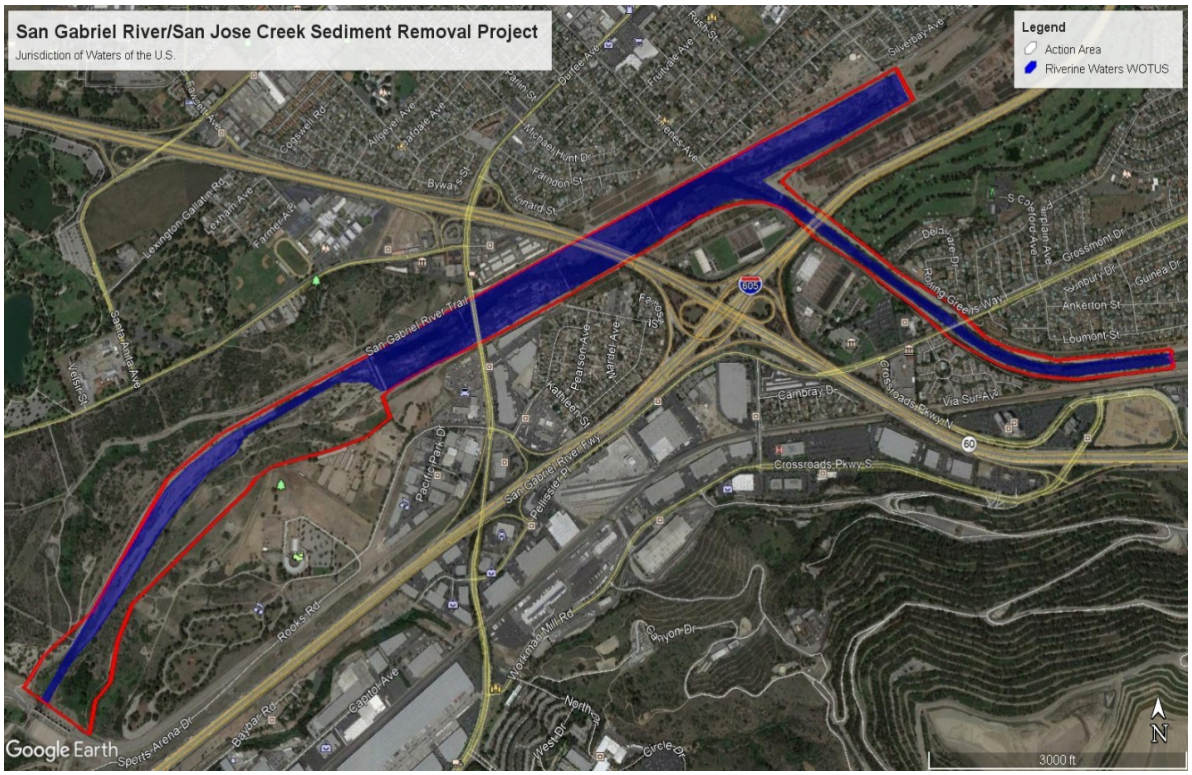


**Figure 3.1-2** Jurisdiction of Waters of the U.S**.**

## 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 ($O_3$). The heaviest concentrations of $O_3$ 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 ($O_3$), carbon monoxide (CO), suspended particulate matter (PM), sulfur dioxide ($SO_2$), nitrogen dioxide ($NO_2$), and lead (Pb). PM emissions are regulated in two size classes: Particulates up to 10 microns in diameter ($PM_{10}$) and particulates up to 2.5 microns in diameter ($PM_{2.5}$).

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 ($NO_2$) | Maintenance | 100 |
| Particulate Matter ($PM_{10}$) | Maintenance | 100 |

| | | |
|---|---|---|
| Particulate Matter ($PM_{2.5}$) | Nonattainment (Serious) | 70 |
| Lead (Pb) | Nonattainment | 25 |
| Sources: 40 CFR 93.153(b)(1) and 40 CFR 93.153(b)(2)<br>VOC = Volatile Organic Chemical | | |

The SCAB is currently in extreme nonattainment for ozone (precursors: VOC or NOx); serious nonattainment for $PM_{2.5}$; maintenance for $PM_{10}$; maintenance for $NO_2$; 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 $PM_{2.5}$, 10 tons of VOC or NOx, 100 tons of CO, $NO_2$ and $PM_{10}$, 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 ($CO_2$), methane ($CH_4$), and nitrous oxide ($N_2O$).

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.

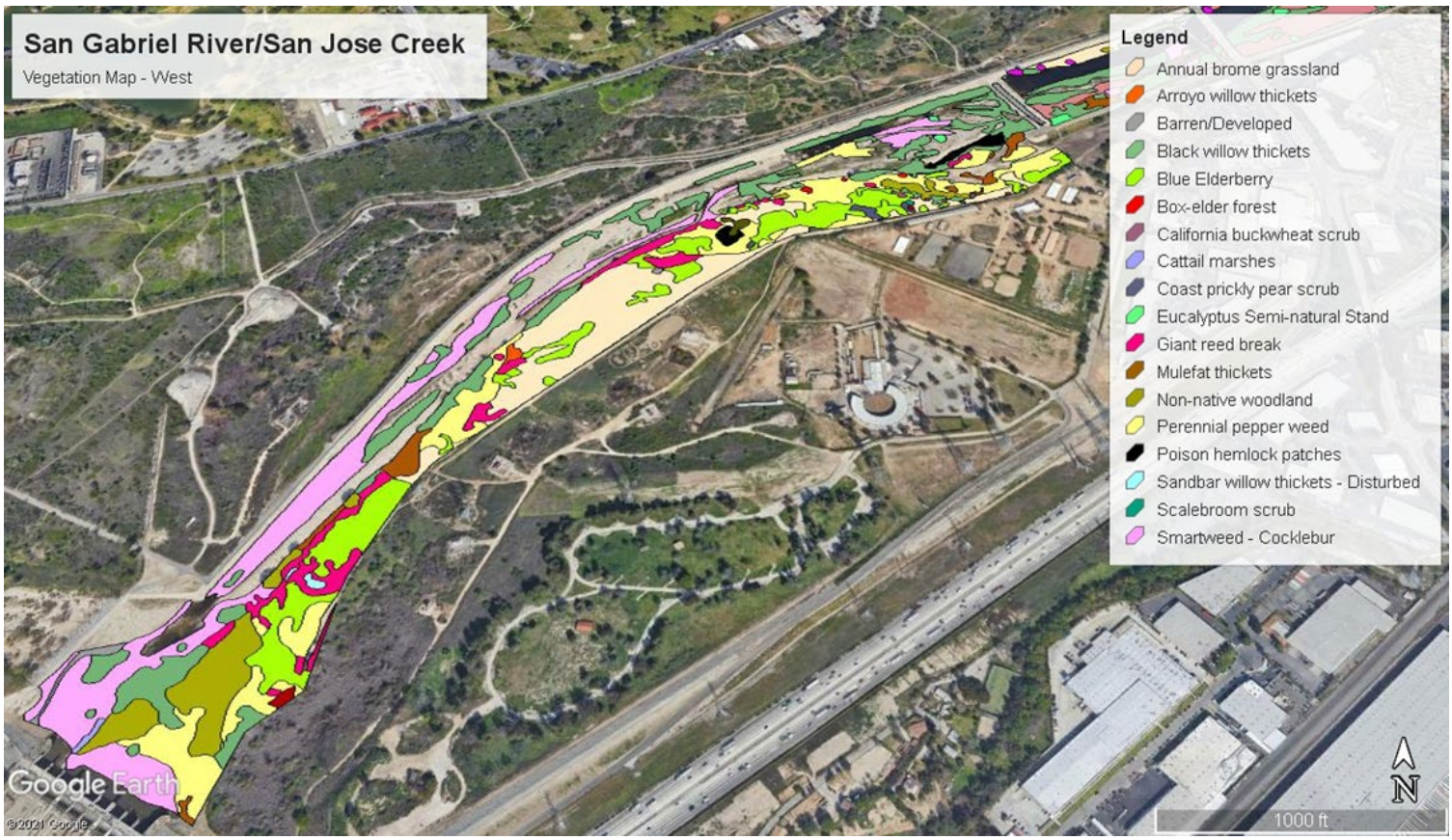


**Figure 3.4-1** Vegetation Communities Map 1


**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.**

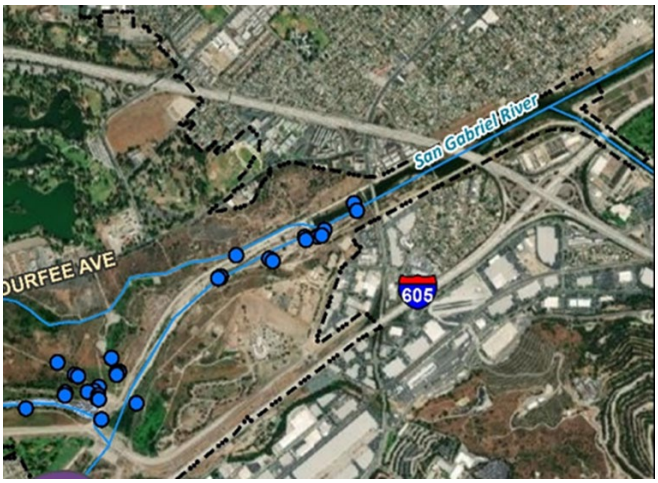


**Figure 3.4.2-2** LBVI locations 2015 Surveys

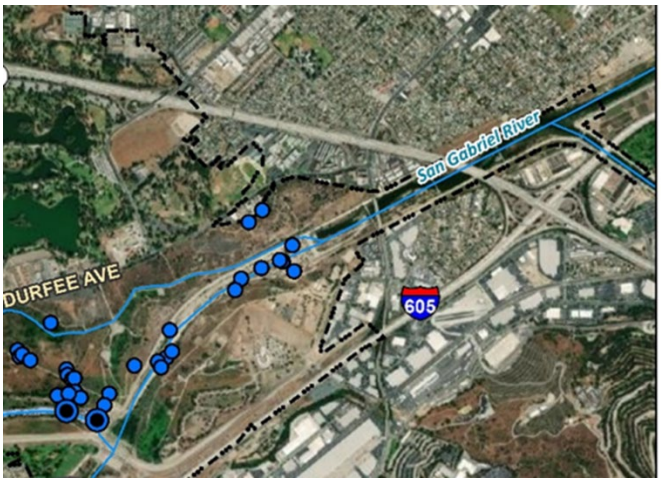


**Figure 3.4.2-3** LBVI locations 2014 Surveys

***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.

### 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)<br>**Electricity**–Southern California Edison<br>**Water** – San Gabriel Valley Water Company<br>**Wastewater** – Los Angeles County Consolidated Sewer Maintenance District and Sanitation Districts of Los Angeles County<br>**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 then the Proposed Action

### 4.4.3 SUMMARY OF SIGNIFICANCE THRESHOLDS RELATED TO THE PROPOSED ACTION

The Proposed Action will not 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; and/or cause a substantial loss in overall diversity of the ecosystem. Additionally, pursuant to section 7 of the ESA, the USFWS issued a biological opinion (BO), dated August 10, 2021, that determined the Proposed Action will not jeopardize the continued existence of the least Bell's vireo. All terms and conditions and conservation measures resulting from this consultation will be implemented in order to minimize take of endangered species and avoid jeopardizing the species. Pursuant to section 7 of the ESA, the Corps determined that the Proposed Action may affect but is not likely to adversely affect the coastal California gnatcatcher and its designated critical habitat. The USFWS concurred with the Corps' determination on August 10, 2021 (see Appendix A of the EA). The USFWS BO and concurrence were written programmatically to allow for addition operations and maintenance to be continued for future use; however, this EA addresses this action only. Should future projects be necessary, additional NEPA documentation and review will be required.

## 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 would 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. The State Historic Preservation Office concurred with the Corps' no adverse effect to historic properties determination on June 10, 2021 (see Appendix B of the EA).

## 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

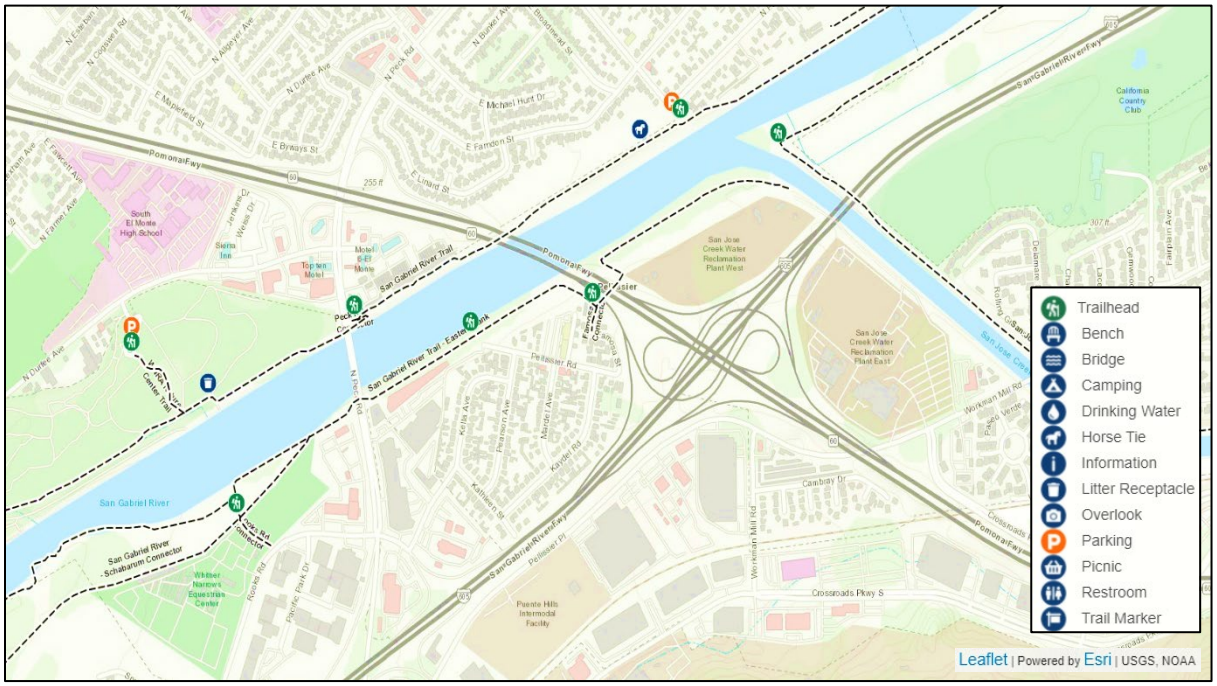


**Figure 4.7-1** Locations of LA County Trails near the Confluence of the San Gabriel River and San Jose Creek

#### 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 workwould 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.

BR-9 Comply with all terms and conditions of the US Fish and Wildlife Service Biological Opinion for the San Gabriel/San Jose Creek Confluence Sediment Removal Project issued August 10, 2021.

**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 in accordance with NEPA. Based on the analysis in Section 4, preparation of an environmental impact statement is not required.

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

The Proposed Action is in compliance with the Act. Pursuant to Section 106 of the NHPA, the Corps determined that historic properties would not be adversely affected by the Proposed Action. The State Historic Preservation Office concurred with this determination on June 10, 2021 (see Appendix B).

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 was posted for public notice which allowed 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. Pursuant to section 7 of the ESA, the USFWS issued a biological opinion, dated August 10, 2021, that determined the Proposed Action will not jeopardize the continued existence of the least Bell's vireo. All terms and conditions and conservation measures resulting from this consultation shall be implemented in order to minimize take of endangered species and avoid jeopardizing the species. Pursuant to section 7 of the ESA, the Corps determined that the Proposed Action may affect but is not likely to adversely affect the coastal California gnatcatcher and its designated critical habitat. The USFWS concurred with the Corps' determination on August 10, 2021. A copy of the biological opinion and letter of concurrence can be found in Appendix A of the EA.

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). 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 Proposed Action is the least environmentally damaging practicable alternative.

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 was distributed to several public agencies and interested parties for review and comment as part of the Public Notice as well as posted to the Corps' Public Notice website from June 9, 2021 to July 9, 2021. No comments were received.

# 8 LIST OF PREPARERS AND REVIEWERS

| Name | Role |
|---|---|
| Chris Solek | Reviewer, Chief, Regional Planning Section |
| Emily Lester | Environmental Coordinator |
| Jenni Snibbe | Biologist |
| Meg McDonald | Archaeologist |
| Edward Mitchell | Engineering Design Technical Lead |

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# Appendix A. Biological Assessment and USFWS Biological Opinion and letter of concurrence

# Biological Assessment

# San Gabriel River/San Jose Confluence Sediment Removal Project

**U.S. Army Corps of Engineers**

**Los Angeles District**

**May 2021**

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## Figures



## Tables

# Chapter 1. Introduction

This Biological Assessment (BA) for the San Gabriel River and San Jose Creek Confluence Sediment Removal Project (Proposed Action) has been prepared by the U.S. Army Corps of Engineers (Corps) in accordance with the requirements set forth under regulations implementing Section 7 of the Endangered Species Act (ESA) (50 C.F.R. Pt. 402). This BA evaluates the potential effects of the Proposed Action on listed and proposed species and designated and proposed critical habitat and determines whether any species or habitat are likely to be adversely affected by the Proposed Action, as required in 50 CFR 402.12.

## 1.1. Background

The San Gabriel River 2 (SGR2) Levee System is located on the San Gabriel River in the County of Los Angeles, California. It is an integral component of the general comprehensive plan for flood risk management in the Los Angeles County Drainage Area (LACDA), authorized by the Flood Control Act of 1941. The SGR2 Levee System comprises two segments: Segment 2a (SGR2a) and Segment 2b (SGR2b). The SGR2a segment runs along the right bank of the San Gabriel River from alongside the Santa Fe Flood Control Basin outlet works, located just upstream of the San Gabriel River/San Jose Creek confluence. The SGR2b segment is the portion of the levee that runs along the right bank (pink line) of the San Gabriel River from the downstream end of the SGR2a levee segment, located just upstream of the Whittier Narrows Flood Control Basin (Figure 1).


**FIGURE 1 SGR2 LEVEE SEGMENT**

## 1.2. Purpose and Need of the Proposed Action

The purpose of the Proposed Action is to perform channel maintenance and remove approximately 127,000 cubic yards (cy) of accumulated sediment and 11.2 acres of vegetation from the San Gabriel River along the SGR2b levee segment (at the confluence of the San Gabriel River and San Jose Creek) in order to re-establish the original design elevation of the channel invert across the entire width of the San Gabriel River at this location in the river channel and restore conveyance capacity.

This Proposed Action is needed to ensure that all features of the SGR2b levee are maintained and function as intended during flood events. During a routine maintenance inspection in April 2017, significant toe erosion was discovered on the right bank of the SGR2b levee segment. Upon investigation, it was determined that the entrance angle of San Jose Creek at this location is significantly higher (58 degrees) than the 15-degree entrance angle requirement per the original channel design at the confluence. This is a direct result of significant shoaling (sediment deposition) that has occurred at the confluence of San Jose Creek and San Gabriel River. This condition has constricted flows in San Jose Creek and directed them at the SGR2b levee embankment. Due to this, the SGR2b levee's embankment is actively being scoured and undermined. When areas of bank instability or erosion are left unattended, the continued bank erosion will continue to form sediment shoals within a river channel, causing a reduction in channel capacity. As the shoals grow in size, it continues to support vegetation and divert the channel flow into the riverbank, causing further bank erosion and instability, eventually leading to a risk of levee/bank failure.

Removing the accumulated sediment and vegetation will allow the original entrance angle of San Jose Creek to be re-established and reduce the risk of levee failure and damage by restoring the flow conveyance capacity to the San Gabriel River and San Jose Creek at the confluence.

## 1.3. Threatened, Endangered, Proposed Threatened or Proposed Endangered Species, Designated Critical Habitat

Table 1 contains the federally-listed and proposed species and designated and proposed critical habitat that may be present in the Action Area (defined in Section 1.6) and the Corps' assessment of whether the Proposed Action is likely to adversely affect such species or habitat based on habitat suitability and best scientific and commercial data available. This table includes species that are part of the Corps' formal consultation request for the Proposed Action under Section 7 of the Endangered Species Act (ESA), as well as species for which the Corps has made a no effect determination. Supporting analyses are provided in Chapters 2 and 3 of this document.

**TABLE 1. FEDERALLY ENDANGERED, THREATENED, PROPOSED ENDANGERED OR PROPOSED THREATENED SPECIES, DESIGNATED OR PROPOSED CRITICAL HABITAT IN THE ACTION AREA**

| Common Name | Scientific Name | Status | Corps' Determination |
|---|---|---|---|
| Nevin's Barberry | *Berberis nevinii* | E | No Effect |
| San Gabriel Mountains dudleya | *Dudleya densiflora* | E | No Effect |
| Slender-horned spineflower | *Dodecahema leptoceras* | E | No Effect |
| Braunton's milk vetch | *Astragalus brauntonii* | E | No Effect |
| Least Bell's vireo | *Vireo bellii pusillus* | E | May Affect – Likely to Adversely Affect |
| Southwestern willow flycatcher | *Empidonax traillii extimus* | E | No Effect |
| Coastal California gnatcatcher | *Polioptila californica californica* | T | May Affect - Not likely to Adversely Effect |
| Santa Ana Sucker | *Catostomus santaanae* | T | No Effect |
| Western Yellow-billed Cuckoo | *Coccyzus americanus occidentalis* | T | No Effect |
| Coastal California gnatcatcher critical habitat | *Polioptila californica californica* | D | May Affect - Not likely to Adversely Effect |
| E = endangered, T = threatened, D = designated | | | |

## 1.4. Consultation History

On January 5, 2021, January 20, 2021 and February 2, 2021, the Corps held teleconferences with the U.S. Fish and Wildlife Service (USFWS) to discuss the Proposed Action, including proposed work and potential measures intended to avoid, minimize, or offset effects of the Proposed Action.

## 1.5. Description of Action Area and Proposed Action

### 1.5.1 Project Location

The Proposed Action is located in the cities of South El Monte and Industry, Los Angeles County, approximately 11 miles east of downtown Los Angeles, and 17 miles upstream of the Pacific Ocean. The site of the Proposed Action is located north of Interstate 605 and east of the Pomona Freeway (State Route 60), within and adjacent to the San Gabriel River and San Jose Creek. The Proposed Action is located on federal, city, and county land.

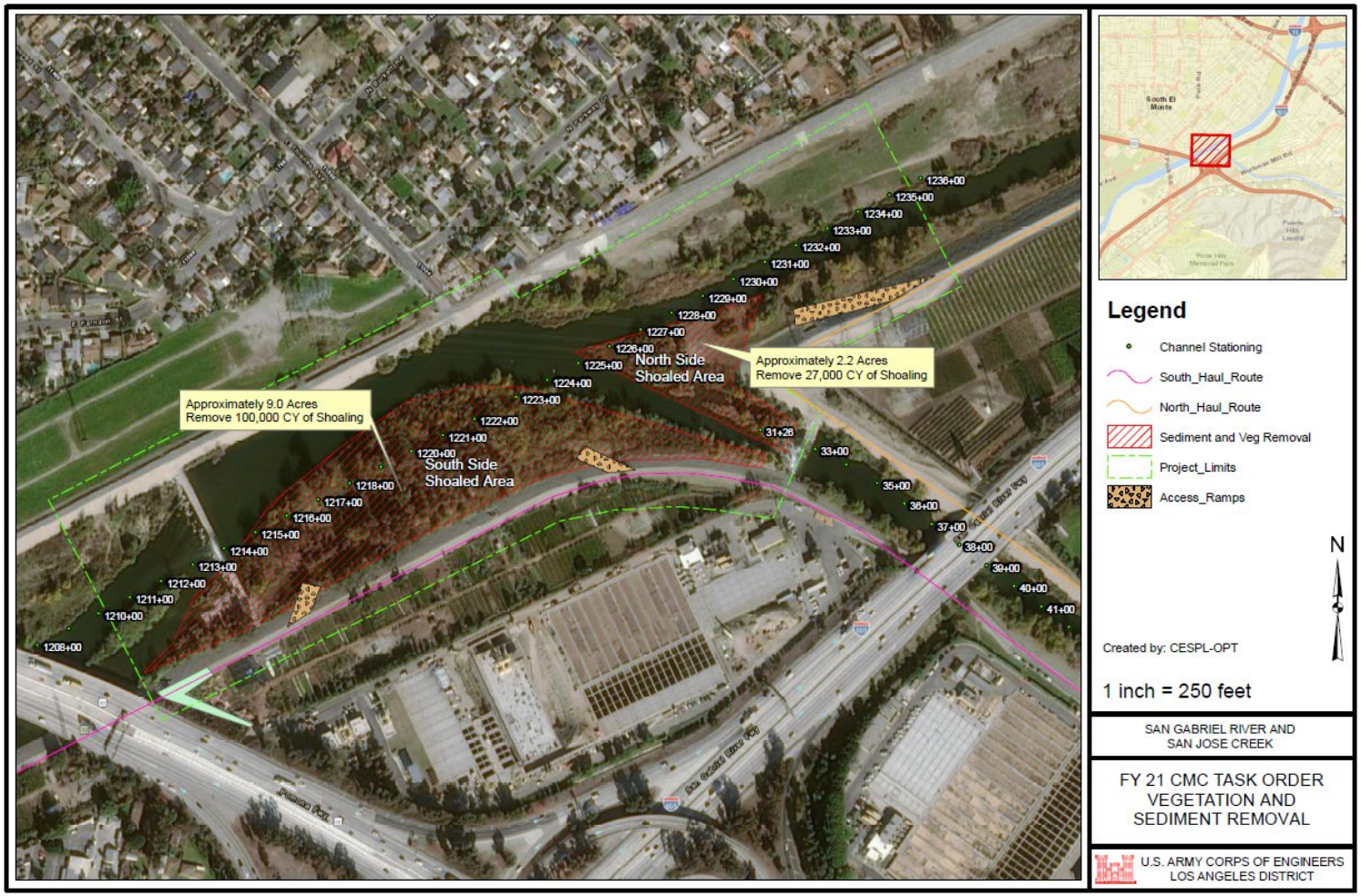


**FIGURE 2. PROPOSED ACTION LOCATION AND FEATURES**

### 1.5.2 Action Area

The Action Area is located on the San Gabriel River at the confluence of San Jose Creek to the Whittier Narrows Dam (Reservoir) as shown in Figure 2. The Action Area includes the temporary construction easement (TCE) where sediment removal activities will occur (up to the edge of the channel embankment, (filled in red)), staging areas, haul routes, and proposed enhancement areas (Figure 3). The Action Area was determined by accounting for direct impacts of the Proposed Action within the footprint and indirect impacts from the Proposed Action such as noise and vibrations that extend beyond the project footprint.


**FIGURE 3. PROPOSED ACTION AND TCE – ACTION AREA**

### 1.5.3 Detailed Description of Proposed Action

The Proposed Action consists of removing approximately 127,000 cy of accumulated material and 11.2 acres of vegetation and sediment at the San Gabriel River and San Jose Creek confluence to ensure that all features of the SGR2b levee perform as intended during flood events (Figure 2). The contractor would determine the methodology for vegetation and sediment removal. Typically, vegetation would be piled separately, loaded, and hauled to a green waste facility. The sediment would be removed with excavators. The substrate would be sorted into piles by type: rocks, relatively dry sediment, and wet sediment (piled to “dry out”). Loaders would load sediment into dump trucks to be hauled to the designated disposal facility.

The channel in SGR2b segment is trapezoidal and comprised of concrete/grouted stone with an earthen invert. Accumulated sediment would 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 construction footprint is approximately 11.2 acres. The design elevation for the channel invert is the top of the toe. The depth of the sediment 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 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. If dewatering or diversion occur as necessary within the existing channel this would be done in compliance with applicable Section 404 and 401 permitting requirements and National Pollution Discharge Elimination System (NPDES) construction stormwater permit (Section 402) prior to construction because the area of disturbance outside WOTUS will exceed one (1) acre of disturbance limit. Best Management Practices (BMP’s) will be utilized to reduce water quality concerns and turbidity and under direction of a qualified biological monitor. There would be no structural alterations or modifications to the engineered channel.

*Staging Areas*

Two staging areas (A and B) for the Proposed Action are proposed. Staging area A (approximately 0.23 acre in size) would be located at the southwest corner of the project area. Staging area B (approximately 0.16 acre in size) would be located south of the project area, off Workman Mill road and along San Jose Creek (Figure 4 and 5).


**FIGURE 4. LOCATION OF STAGING AREA A**

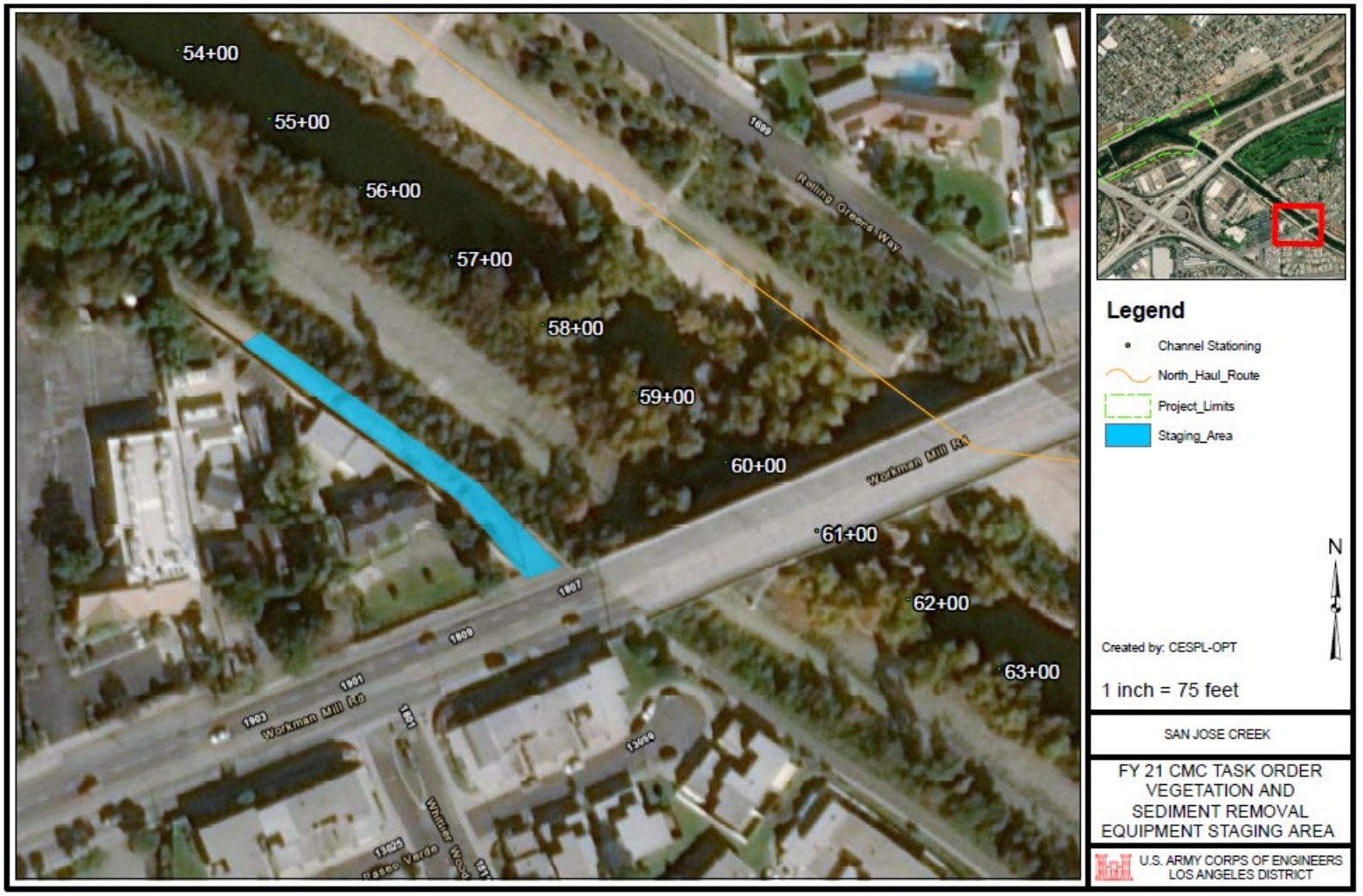


**FIGURE 5 LOCATION OF STAGING AREA B**

*Site Access and Haul Routes*

Construction vehicles would access the project area from the adjacent Los Angeles County Sanitation District property. Up to three (3) proposed temporary access ramps would be constructed to allow access into the channel. See Figure 2 for potential locations of the temporary ramps. The temporary ramps would measure approximately 120 feet (ft.) long, 15 ft. wide, and 2 ft. high and would be comprised of clean, earthen fill. Prior to construction, the contractor would submit the design of the temporary ramps to the Corps for review.

Haul roads requiring vehicular access would be needed during the removal of vegetation and sediment to transport equipment, fill material, and other construction materials. The haul route is aligned north to south and would be used to access the southern portion of the project area where the access ramps would be constructed (Figure 2). The haul route is on existing paved road that have relatively consistent use by vehicles. Construction equipment and haul trucks would utilize existing highways, roadways, and temporary access ramps constructed for the Proposed Action.

For disposal, the haul route would begin at the project area and end at a commercial landfill, American Bin Company, located approximately 32 miles northwest of the project area. Construction equipment and haul trucks would utilize the temporary ramps constructed for the Proposed Action and existing roadways.

Organic materials, trees, shrubs, and abandoned timber structures, as well as inorganic materials, would be disposed of by hauling to the American Bin Company (Figure 6). Disposal of these materials by burning or burying at the project area would not be permitted. Although it is not anticipated that hazardous substances would be present in the material removed, prior to disposal, the collected material would undergo testing to determine (by the contractor) appropriate disposal techniques. If potentially toxic soils are encountered, lay down yards for drying and/or sorting of materials are located in the cities of Pomona or Riverside and would be used for disposal.

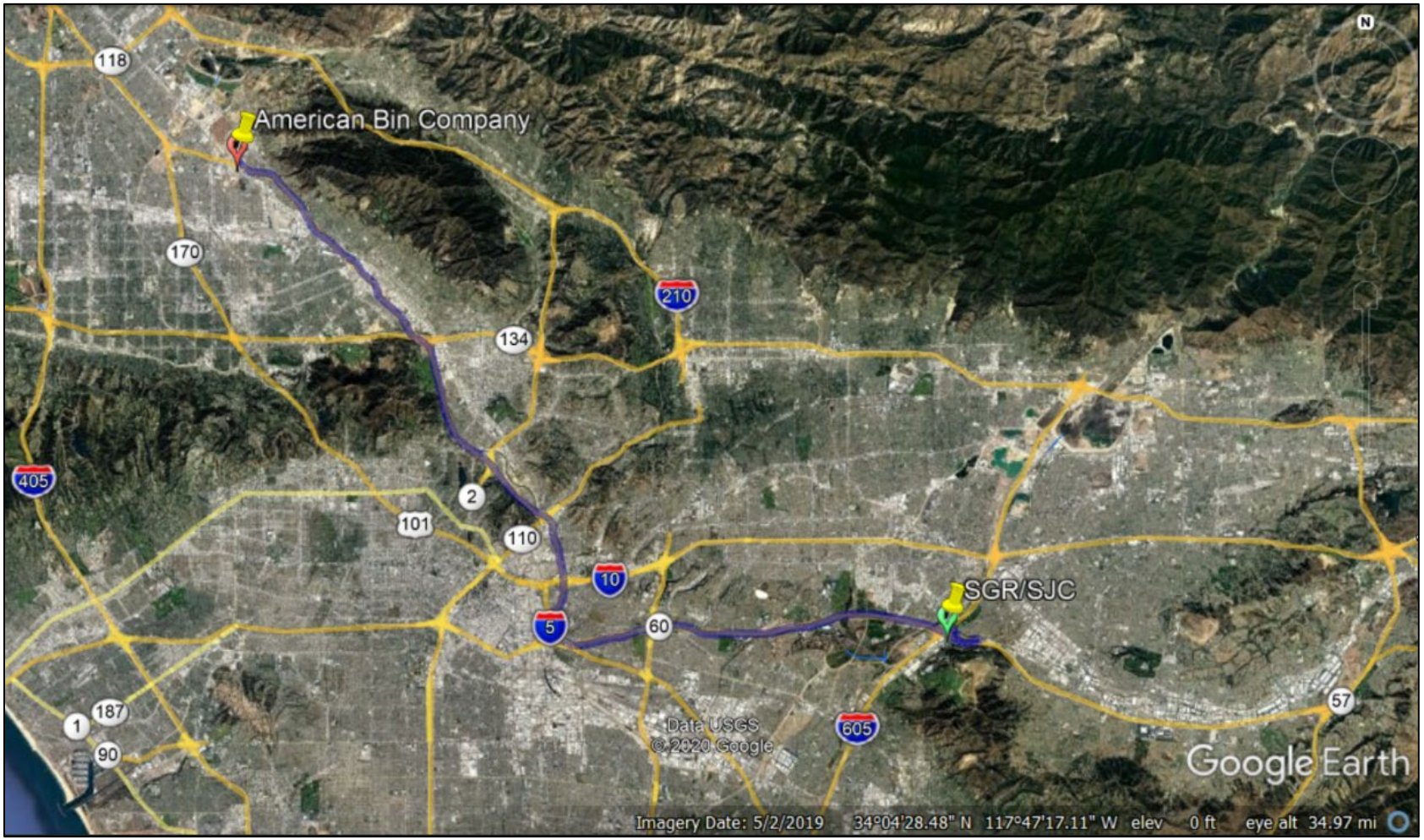


**FIGURE 6. LOCATION OF AMERICAN BIN COMPANY – HAUL ROUTE**

*Construction Equipment*

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

*Construction Schedule*

Construction is scheduled to commence in Fall 2021 through Fall 2024 and would only occur during periods when least Bell's vireo and coastal California gnatcatcher are not nesting (avoidance from March 1 – September 15). It is possible that the Proposed Action would be constructed in stages, with multiple start dates and construction periods for various phases depending on funding, environmental windows, and weather delays. Construction 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 construction schedule, but timing would comply with local noise ordinances.

### 1.5.4 Measures Intended to Avoid, Minimize, or Offset Effects of the Proposed Action

There is a total of 31.4 acres of habitat impacts estimated for the 131.4 acre Proposed Action Area. Of that total, 11.2 acres are permanent impacts from the removal of vegetation and sediment, and 20.2 acres are temporary impacts within the project footprint including the enhancement of wetland/riparian habitat. Conservation measures would ensure less that significant effects of the Proposed Action by minimizing the removal of and impacts to vegetation, to the extent practicable, along the channel, staging areas and ingress/egress locations. The vegetation communities within the Action Area were categorized based on the potential to meet least Bell's vireo suitable habitat quality with the implementation of an exotic/invasive removal management plan. This plan would follow similar guidelines as set in the LACDA O&M Manual (Corps, 1999). The enhancement activities would be implemented for a period of 10 years. The Corps proposes to offset the permanent impacts to wetland/riparian habitat at a 2:1 ratio. Table 2 summarizes the impacts, offset ratio, and number of acres intended to offset permanent impacts of the Proposed Action, including 10-years of vegetation management.

A total of 20.2 acres of wetland/riparian habitat would be enhanced to offset permanent impacts to nine (9) acres of suitable least Bell's vireo riparian habitat at a 2:1 ratio and permanent impacts to 2.2 acres of disturbed non-native vegetation at a 1:1 ratio. According to the vegetation data collected and mapped (Woods 2019), there are a total of 20.7 acres available for creditable riparian habitat enhancement opportunities.

**Vegetative cover categories (see Figure 7 and Table 2) include:**

1. Mixed Canopy Non-native Vegetation, non-native woodland, Mixed canopy- disturbed (moderate to low quality, creditable mitigation); This vegetation category offers the most opportunity for enhancement of habitat.
2. Mixed Wetland/Riparian Canopy Native Vegetation (high quality, not creditable mitigation).
3. Eucalyptus Grove and Giant Reed (*Arundo donax*) – removal only (low quality, not creditable mitigation).
4. Pepperweed (*Lepidium latifolium*), poison hemlock (Conium maculatum), and mustard (*Brassica sp*.) – removal only (low quality, not creditable mitigation).
5. Herbaceous or low growing shrubs/sub-shrubs, cattail aquatic herbaceous (moderate quality, could be creditable); and
6. Barren, unvegetated (low quality, not creditable mitigation).

**Habitat enhancement activities would meet the following conditions:**

- Enhancement activities must be initiated immediately following the completion of the construction of the Proposed Action; 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)
- Exotic/invasive plant species 100% removal in target riparian areas in the Mixed Canopy Non-Native Vegetation for 10-years (as shown in Table 2 and Figure 7)

**TABLE 2. SUMMARY OF PROPOSED OFFSET AND VEGETATION CATEGORIES**

| 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 Vegetation Acres** | **131.4** |

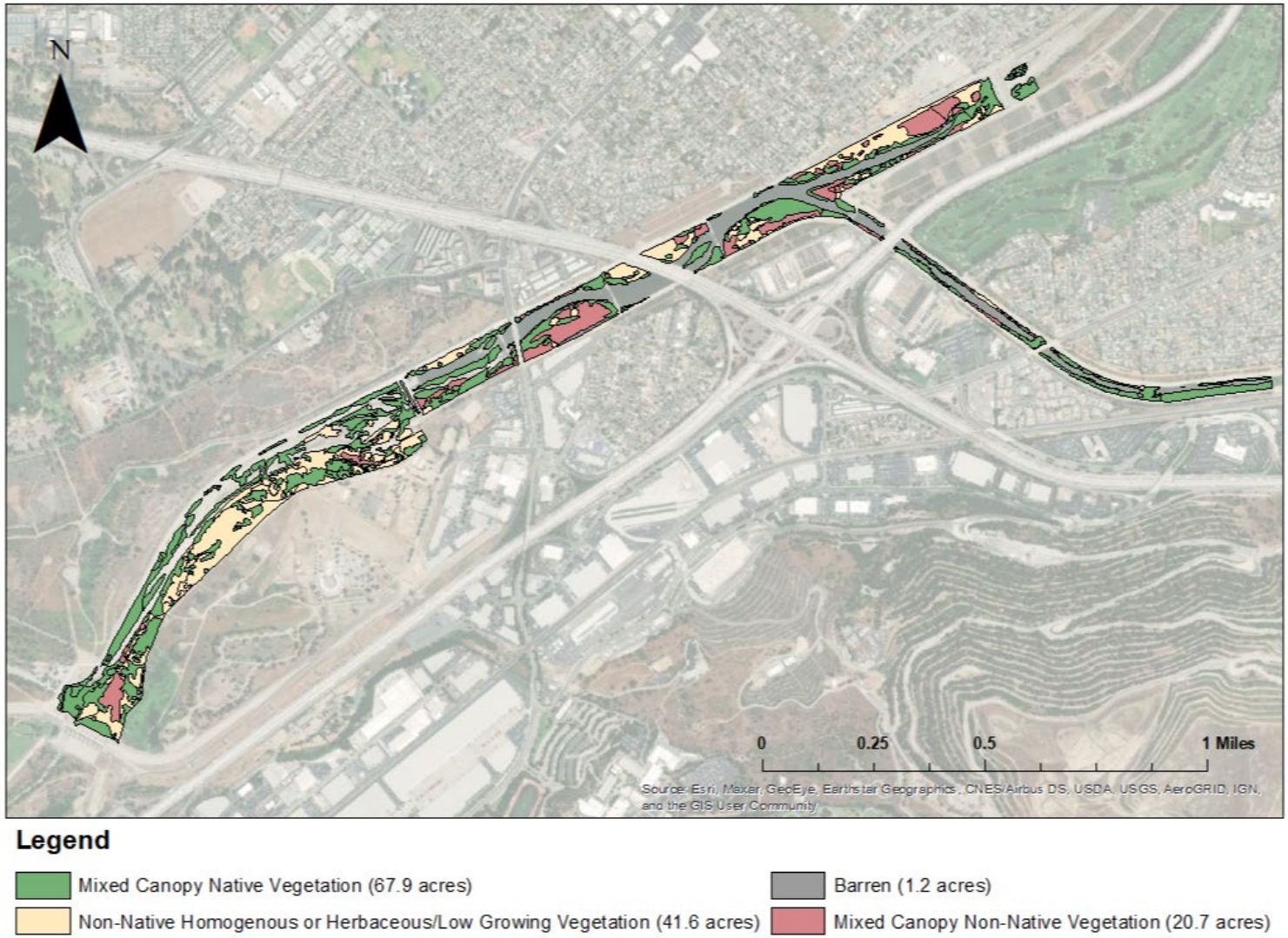


**FIGURE 7. VEGETATION COVER CATEGORIES MAP**

### 1.5.5 Environmental Commitments

The following measures are either intended to avoid or minimize impacts during construction (e.g., conducting surveys, ensuring activities remain within the project footprint) or provide habitat enhancement and passive restoration in the Action Area to offset permanent losses to wetland/riparian habitat:

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

**BIO-2** 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).

**BIO-3** 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).

**BIO-4** 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 area 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.

**BIO-5** The Corps biologist (or environmental monitor) will monitor construction activities at initiation of construction and weekly checks to ensure compliance with environmental commitments.

**BIO-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 Action Area.

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

1. Inspect/survey the project area, for any sensitive wildlife species;
2. 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;
3. Ensure the limits to construction are clearly marked.

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

1. All equipment maintenance, staging, and dispending of fuel, oil, coolant, or any other toxic substances will occur in developed or designated non-sensitive upland areas. These areas will implement best management practices to prevent runoff carrying toxic substances from entering the San Gabriel River or San Jose Creek and associated drainages. If a spill occurs outside of a designated area, the cleanup will be immediate and documented.
2. 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.
3. To the extent feasible, the 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.

# Chapter 2. Environmental Baseline and Special Status Species

## 2.1 Environmental Baseline

"Environmental baseline" refers to the condition of the listed species or its designated critical habitat in the Action Area, without the consequences to the listed species or designated critical habitat caused by the Proposed Action. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the Action Area, the anticipated impacts of all proposed Federal projects in the Action Area that have undergone section 7 consultation, and the impacts of State and private actions which are contemporaneous with the consultation in progress. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify (like flood risk management operations) are part of the environmental baseline (50 C.F.R. 402.02).

The Action Area is located on the San Gabriel River at the confluence of San Jose Creek to the Reservoir. The Flood Control Act of 1936, as amended, included authorization for work on the San Gabriel River and Rio Hondo as approved by the Chief of Engineers, U.S. Army. The Reservoir was authorized as a unit of the general comprehensive plan for flood risk management in the LACDA authorized by the Flood Control Act of 1941. Construction of the Reservoir was completed in 1957. The primary purpose of the Reservoir is to provide flood risk management for the residents of Los Angeles and Orange counties residing downstream of the dam. The Reservoir is defined as the area upstream or behind the Dam structure that may be inundated with water during storm events. The Federal government owns 2,640.1 acres in fee and has limited rights over an additional 186.5 acres through flowage easements (2,828.6 acres in total). The Corps considers the 2,828.6 acres of land to be the Reservoir (See Figure 8). Information presented in this Chapter is based on recent surveys, literature reviews, and coordination with regulatory agencies and technical experts. The Action Area has been surveyed by biologists from the Corps, Wood Environment & Infrastructure Solutions, Inc. (Wood 2020) and the United States Geological Survey (USGS, 2019) to document the presence and locations of biological resources and sensitive species. California Department of Fish and Wildlife (CDFW), USFWS, and California Native Plant Society (CNPS) sensitive species occurrence databases were reviewed for the Action Area. This section summarizes the results of database reviews and surveys to present an up to date and thorough description of the environmental baseline.


**FIGURE 8. WHITTIER ARROWS DAM RESERVOIR**

## 2.2 Habitat Condition in the Action Area

The topography of the Action Area ranges from flat within the channel to approximate 25-30 percent slope increase in elevation to the trails above and along the upper banks. The majority of the Action Area is disturbed from a combination of homeless encampments, recreational, and equestrian use and existing invasive and exotic plants.

The San Gabriel River watershed is south of the Whittier Narrows Recreation Area and Nature Center and essentially an island of open space in the densely urbanized San Gabriel Valley. The habitat has been significantly altered from its historic condition by the construction of the Reservoir. Since construction, vegetation communities have been further altered by several factors, including drought (CDWR 2009), fires, natural and human-caused erosion, planting of non-native species, and ongoing routine maintenance activities (Los Angeles County 2010). These disturbances have allowed invasive plant species to become established, and these have become widespread. Competing interests for open space include recreation, agriculture, wildlife conservation, education, and infrastructure.

Most of the Action Area proper is disturbed from a combination of recreational uses, especially equestrian. Artificial features such as roads, bike paths, bridges, flood control facilities, and equestrian trails are scattered throughout the area. The topography of the Action Area within the river is flat. Elevation gradients are subtle. The river channel is comprised of thick, soft sand with little to no coarse gravel or cobbles.

Homeless people use the vegetated channel bottom to set up camps and crude shelters, usually hidden within areas of dense vegetation. The current estimate of the number of homeless residing in the Reservoir is about 250 people (USACE 2019). Suitable habitat for vireo and dispersing gnatcatchers is negatively affected by the use of the Reservoir by homeless. Negative effects include vegetation removal for shelters, increased noise, lighting and disturbance, and fire ignition. Fires degrade habitat and have resulted in the direct loss of nests (USACE 2019).

## 2.3 Vegetation

Surveys were conducted in spring and fall of 2019 within the Action Area (Figure 9, 10, and 11). The recent vegetation mapping efforts remain relatively consistent with the previous findings in Baseline Monitoring Report San Gabriel River Riparian Adaptive Management Plan (Wood, 2020). 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 15 vegetation and cover types within the Action Area. Ornamental landscape, trails and parks have been included in the developed cover type. Table 2 lists the cover types and impact types within the Action Area. 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 Action Area are considered sensitive habitat types for their part in the ecological function of the watershed. These communities play important roles in the

life histories for a broad diversity of both common and special-status wildlife species. While non-native habitats are not protected, these communities still provide important foraging and refugia habitat for a variety of sensitive wildlife species including coastal California gnatcatcher (*Polioptila californica californica*) and least Bell's vireo (*Vireo belli pusillus*). 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*). There will not be any direct or indirect impacts on native vegetation outside of the project footprint.

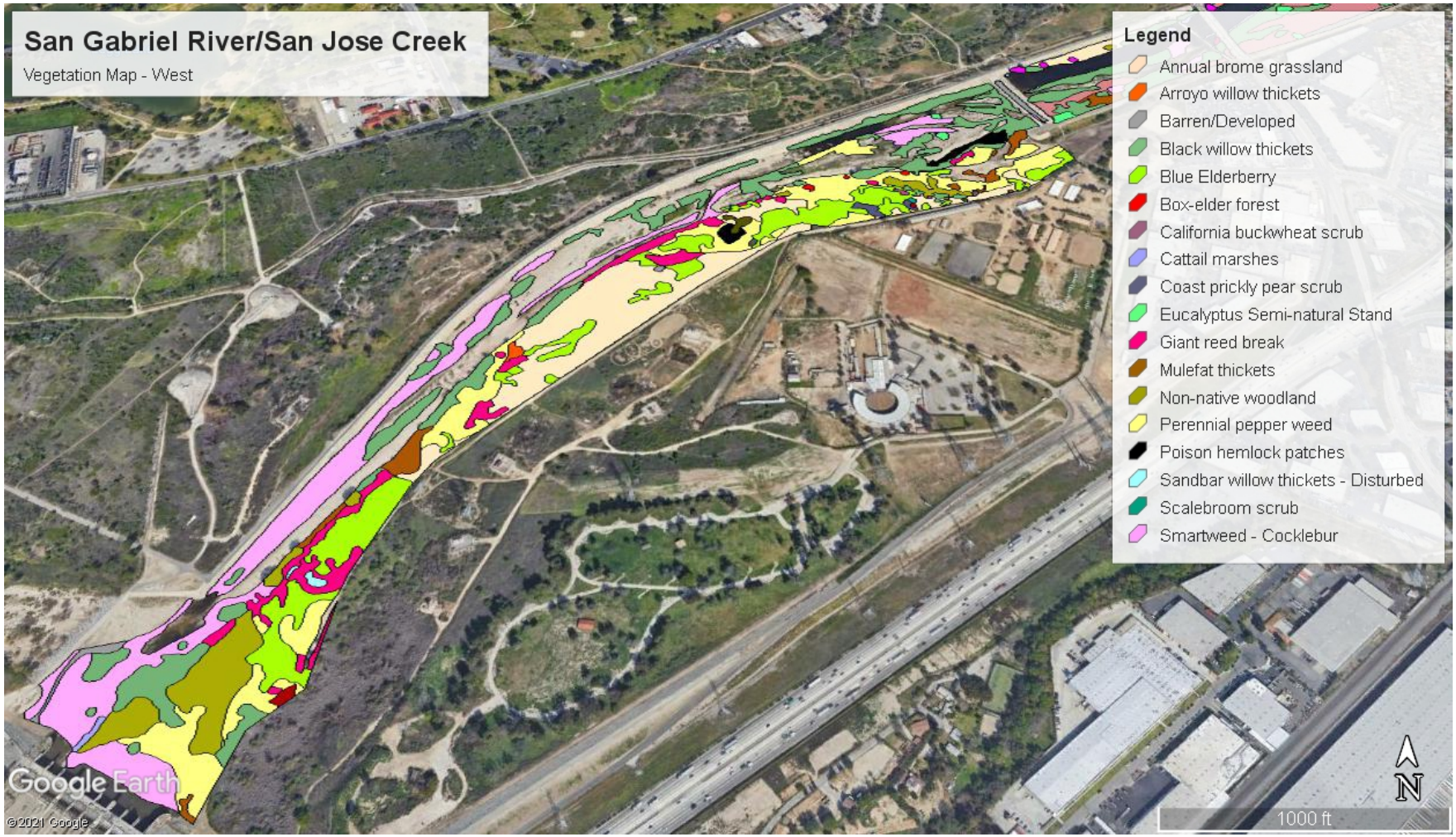


**FIGURE 9. VEGETATION COMMUNITIES WITHIN THE ACTION AREA (WEST)**


**FIGURE 10. VEGETATION COMMUNITIES WITHIN THE ACTION AREA (CENTER)**


**FIGURE 11. VEGETATION COMMUNITIES WITHIN THE ACTION AREA (EAST)**

### 2.3.1 Black Willow Thickets

Black willow thickets are comprised of winter-deciduous trees that require water near the soil surface. Black willow (*Salix goodingii*) dominate and co-dominate tree species cottonwood (*Populus fremontii*) form a dense medium height woodland or forest in moist canyons and drainage bottoms. Associated understory species include mulefat (*Baccharis salicifolia*), non-native grasses (*Bromus sp.*) and short pod mustard (*Hirshfeldia incana*).

### 2.3.2 Arroyo Willow Thickets

Arroyo willow thickets is comprised of winter-deciduous trees that require water near the soil surface. arroyo willow (*Salix lasiolepis*) forms a dense medium height woodland or forest in moist canyons and drainage bottoms. Associated understory species included mulefat, and non-native grasses.

### 2.3.3 Arroyo Willow Thickets-Disturbed

Arroyo willow thickets is comprised of winter-deciduous trees that require water near the soil surface. arroyo willow (*Salix lasiolepis*) with co-dominate species forms a dense medium height woodland or forest in moist canyons and drainage bottoms. Associated understory species included mulefat, castor bean (*Ricinus communis*), sweet fennel (*Foeniculum vulgare*), short pod mustard, and non-native grasses.

### 2.3.4 Mulefat Thickets

This vegetation type is a shrubby riparian scrub community comprised of mulefat (*Baccharis salicifolia*), elderberry (*Sambucus nigra*), small willows, commonly found near intermittent drainages and along floodplains. This community is sustained by seasonal flooding followed by dry periods but relies on a shallow water table.

### 2.3.5 Mulefat Thickets-Disturbed

This vegetation type contains the same vegetation composition as mulefat thicket except that there is some type of disturbance. Consists of shrubby riparian scrub community comprised of mulefat, elderberry, small willows, and Mexican fan palm (*Washingtonia robusta*), commonly found near intermittent drainages and along floodplains. This community is sustained by seasonal flooding followed by dry periods but relies on a shallow water table. The community is considered disturbed because of the high presence of nonnative species interspersed within the community. Nonnative species with high cover include sweet fennel, castor bean, poison hemlock, non-native grasses and shortpod mustard.

### 2.3.6 Giant Reed Breaks

This vegetation type is dominated by giant reed (*Arundo donax*). Within the Action Area large patches or swaths of mature giant reed mixed with native riparian species such as willows and cottonwood. Where giant reed patches occur, there is little to no understory.

### 2.3.7 Barren

This cover type is found in some areas along the edges of the embankment and adjacent horse trail.

### 2.3.8 Non-Native Woodland

This vegetation type represents the areas that are dominated by nonnative and sometimes ornamental trees. Eucalyptus (*Eucalyptus* sp.) is the dominant species in this cover type which is generally found on the edge of the embankment. Other species observed include Mexican fan palm, Shamel ash (*Fraxinus uhdei*), common fig (*Ficus carica*), and chinaberry (*Melia azedarach*). The understory is mostly ruderal or ornamental grasses and forbs.

### 2.3.9 Developed

This cover type represents the areas that have been developed by buildings or other similar developments and landscaped vegetation for residential and recreational purposes. There are numerous developed areas in the Action Area including access roads, trails, grouted levee, and culverts and areas cleared of vegetation, such as horse trails.

### 2.3.10 Annual brome grassland

This vegetation type is in areas along the San Gabriel River adjacent to previously disturbed or recreational areas.

### 2.3.11 Sandbar Willow Thickets

This vegetation type is within temporarily flooded floodplains, depositions along rivers and streams, and at springs. Consists of shrubby riparian scrub community comprised of sandbar willow, other small willows. The community is considered disturbed because of the high presence of non-native species interspersed within the community. Nonnative species with high cover include sweet fennel, castor bean, poison hemlock, non-native grasses, and short pod mustard.

### 2.3.12 Sandbar Willow Thickets-Disturbed

This vegetation type contains the same vegetation composition as sandbar willow thicket except that there is some type of disturbance. Sandbar willow is typically found growing in temporarily flooded floodplains, depositions along rivers and streams, and at springs. Consists of shrubby riparian scrub community comprised of sandbar willow, other small willows, and an herbaceous understory. The community is considered disturbed because of the high presence of non-native species interspersed within the community. Nonnative species with high cover include sweet fennel, castor bean, poison hemlock, non-native grasses, and short pod mustard.

### 2.3.13 Smartweed - cocklebur

This vegetation type cover is open to continuous relative cover in marshes and regularly disturbed vernally wet ponds, fields, and stream terraces. The Smartweed- cocklebur was observed growing along the stream banks down to the water edge.

### 2.3.14 Eucalyptus Semi-Natural Stands

This vegetation type represents the areas that are dominated by non-native ornamental Eucalyptus trees. Other species in the understory may include ruderal or ornamental grasses and forbs.

### 2.3.15 Cattail Marshes

This vegetation type is semi-permanently flooded freshwater or brackish marshes dominated by cattails (*Typha angustifolia, T. domingensis, and T. latifolia*) in the herbaceous layer and sometimes with emergent trees present at low cover, including willow species. The cattail marsh habitat was observed in areas were water flows were sheltered or contained.

## 2.4 Aquatic Resources

The San Gabriel River watershed originates 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.

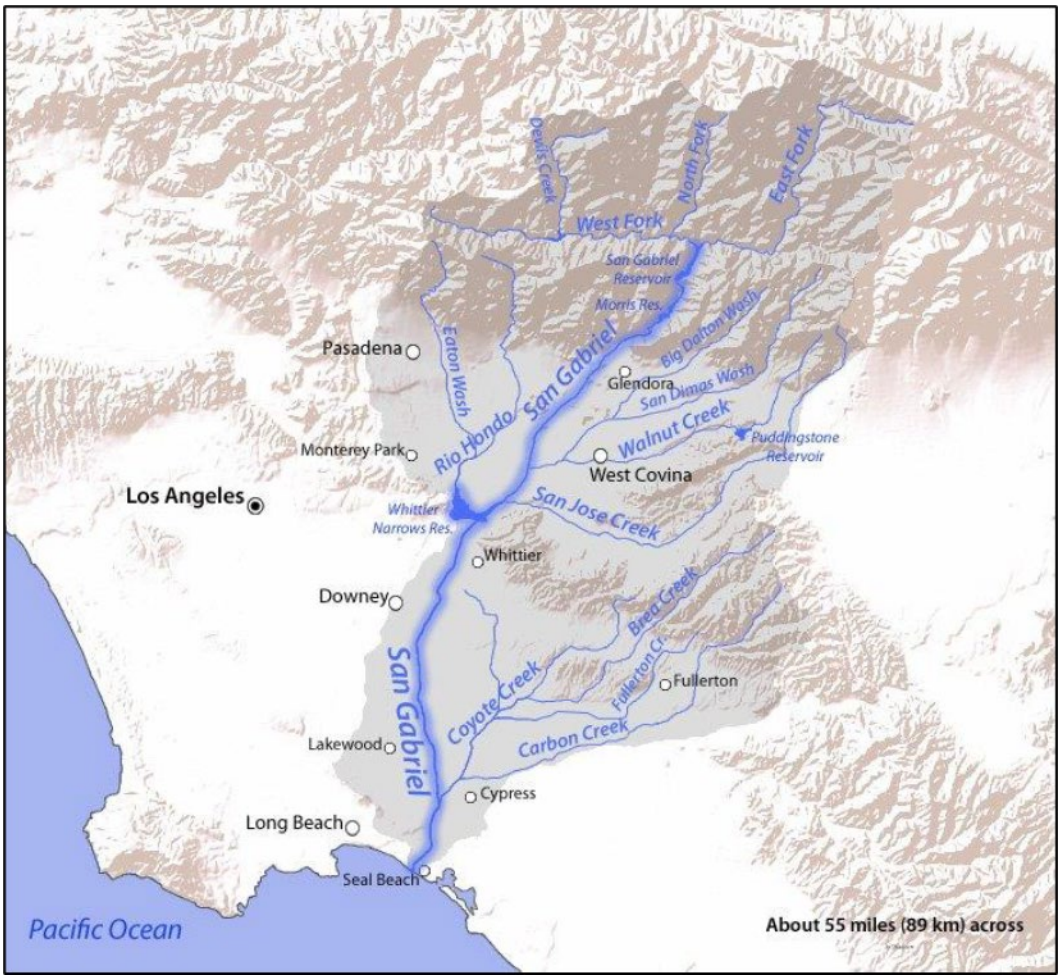


**FIGURE 12. LOCATION OF THE SAN GABRIEL RIVER AND SAN JOSE CREEK**

A preliminary jurisdictional determination (PJD) of Waters of the U.S. (WOTUS) within the Action Area has been prepared. 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. The jurisdictional delineation is based on satellite imagery, field observations from vegetation surveys, and engineering surveys.

Potential tributary WOTUS include San Gabriel River and San Jose Creek. The San Gabriel River is a direct tributary to the Pacific Ocean, an (a)(1) water. San Jose Creek is a tributary of the San Gabriel River (Figure 12).

Stream gauge records from a site immediately upstream of Whittier Narrows Dam indicates that the San Gabriel River intermittently conveyed flows from September 30, 2018 through December 5, 2018. The river continuously conveyed flows from December 6, 2018 to April 1, 2019, a five-month

period. Non-storm flows averaged approximately 50 cfs. Peak storm flows ranged from 1,050 cfs to 5,200 cfs.

Scour and sedimentation, demarcating the active channel, as evident on satellite imagery was used to identify OHWM. In total there are approximately 117 acres of potential WOTUS in the Action Area as shown in Figure 13.

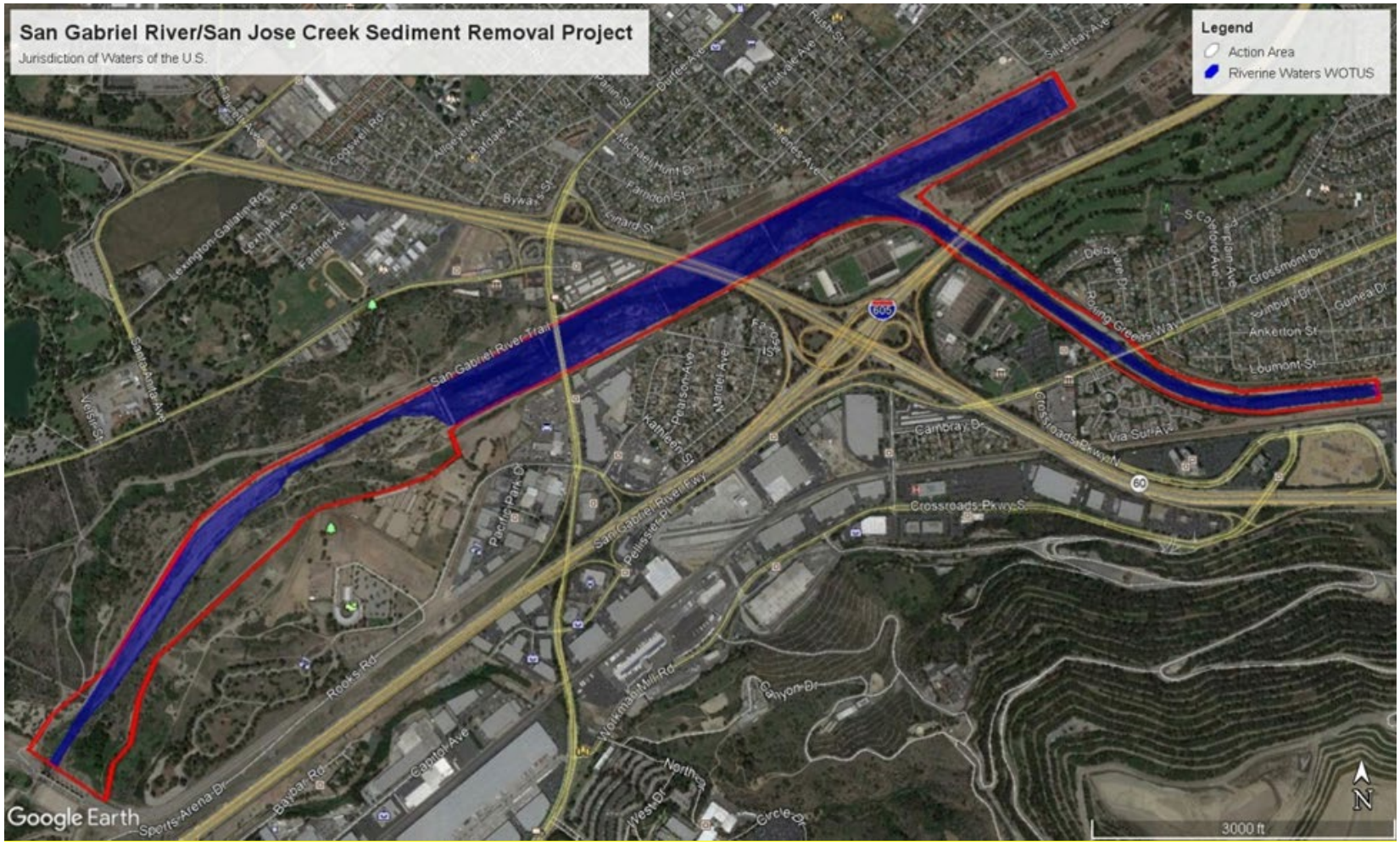


**FIGURE 13. POTENTIAL JURISDICTIONAL WATERS OF THE U.S. IN THE ACTION AREA**

## 2.5 Wildlife

The Action Area contains both riparian and upland habitat for wildlife. Riparian communities support some of the most diverse assemblages of wildlife and provide access to water, shade, and cover. In addition, riparian systems and wetlands are frequently considered one of the most productive forms of wildlife habitat in North America. The San Gabriel River and San Jose Creek supports extensive riparian and aquatic habitat. Many bird species are wholly, or at least partially, dependent on riparian plant communities to perpetuate their kind (Warner et.al., 1984). In the Action Area the vegetation is also critical to many wildlife species as many aquatic and semi-aquatic species rely on adjacent terrestrial habitats to complete their life cycles (Semlitsch and Bodie 2003, Burke and Gibbons 1995). 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 and upland habitats that occur in the Action Area provide habitat for a variety of resident and migratory wildlife species including several special-status species. Of particular importance are riparian and streambed areas that provide potential habitat for the least Bell's vireo (*Vireo bellii pusillus*) and coastal California gnatcatcher (*Polioptila californica californica*).

The development surrounding the riparian portion of the Action Area makes it part of a key movement corridor and/or dispersal habitat for a number of wildlife species that use the San Gabriel River to connect to other areas within the watershed. Continuous riparian riverine habitat is upstream and downstream from the project alignment, increasing the likelihood of wildlife presence within the Action Area and directly adjacent. Some species, such as mourning dove, northern mockingbird, and California house finch are positively correlated with urbanization, but most species were negatively correlated 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 visitation along the river embankment and adjacent recreational trails may adversely affect wildlife use in the Action Area to some degree.

The only federally listed species observed within the Action Area is least Bell's vireo and coastal California gnatcatcher which occur throughout the Action Area. A full list of special-status species and determination of each species' potential to occur due to literature review and documented past observations within the Action Area is found in Appendix A. An updated observed species list from Action Area specific surveys can be found in Appendix B.

## 2.6 Current Status of Species and Critical Habitat

United States Geological Survey (USGS) conducted surveys for least Bell's vireo and coastal California gnatcatcher within the Action Area as documented in the Western Ecological Research Center's draft data summary report entitled *Least Bell's Vireo (Vireo bellii pusillus), Coastal California Gnatcatcher (Polioptila californica californica), and Southwestern Willow Flycatcher (Empidonax traillii extimus) Surveys at the Whittier Narrows Dam, Draft Final 2019*, see results below. The following species are not expected to occur within the Action Area due to marginal or no suitable habitat, lack of recent sightings, and/or due to lack of detection during focused surveys: Nevin's barberry (*Berberis nevinii*), San Gabriel Mountains dudleya (*Dudleya densiflora*) Slender-horned spineflower (*Dodecahema leptoceras*), Braunton's milk vetch (*Astragalus brauntonii)*, Southwestern willow flycatcher (*Empidonax traillii extimus*), Santa Ana Sucker (*Catostomus santaanae*), and Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*) (see Appendix A). These species are not discussed further as the Corps has made no effect determinations. The following sections discuss the species of concern, results of surveys, and critical habitat designated in the Action Area.

### 2.6.1 Least Bell's Vireo

Least Bell's vireo (LBVI) is a federal and state endangered species and a Western Riverside MSHCP covered species. 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 occurs within the Action Area. 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 in the riparian zones, most frequently in 5- to 10-year-old stands. When LBVI nest in mature riparian woodlands, they nest in areas with a substantial, robust understory of willows as well as other plant species. 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 et al. 2010). In more xeric areas, this species will readily utilize unconventional habitats, including mesquites and tamarisk. In riverine habitat, in Southern California, this species

typically has territory sizes that average two (2) acres in size (Kus et al. 2010). LBVI are extremely site- tenacious and return to the same nesting habitat every year (Salata 1983).

## Survey Results

The results of the 2014-15 Corps LBVI surveys (all observations in 2014 and 2015) (Figure 14) and the results of the 2019 USGS protocol survey (territory centers in 2019) (Figure 15) are presented herein. No surveys were conducted in 2018, and the 2016-17 LBVI data were not available at the time of this analysis.

During the 2019 protocol surveys conducted in 2019 by the USGS, one LBVI pair was confirmed within the sediment/vegetation removal area. A second possible pair was observed but considered "undetermined" as it was not confirmed that the male was paired. For the purposes of this analysis, it is assumed there are two pairs located within the sediment/vegetation removal area. Seven (7) additional least Bell's vireo pairs are located within the habitat enhancement areas. Locations of detected LBVI territories within the Action Area are shown in Figure 15. The 2014 and 2015 observations below were not protocol surveys and did not differentiate nesting, foraging and post-breeding dispersal observations.

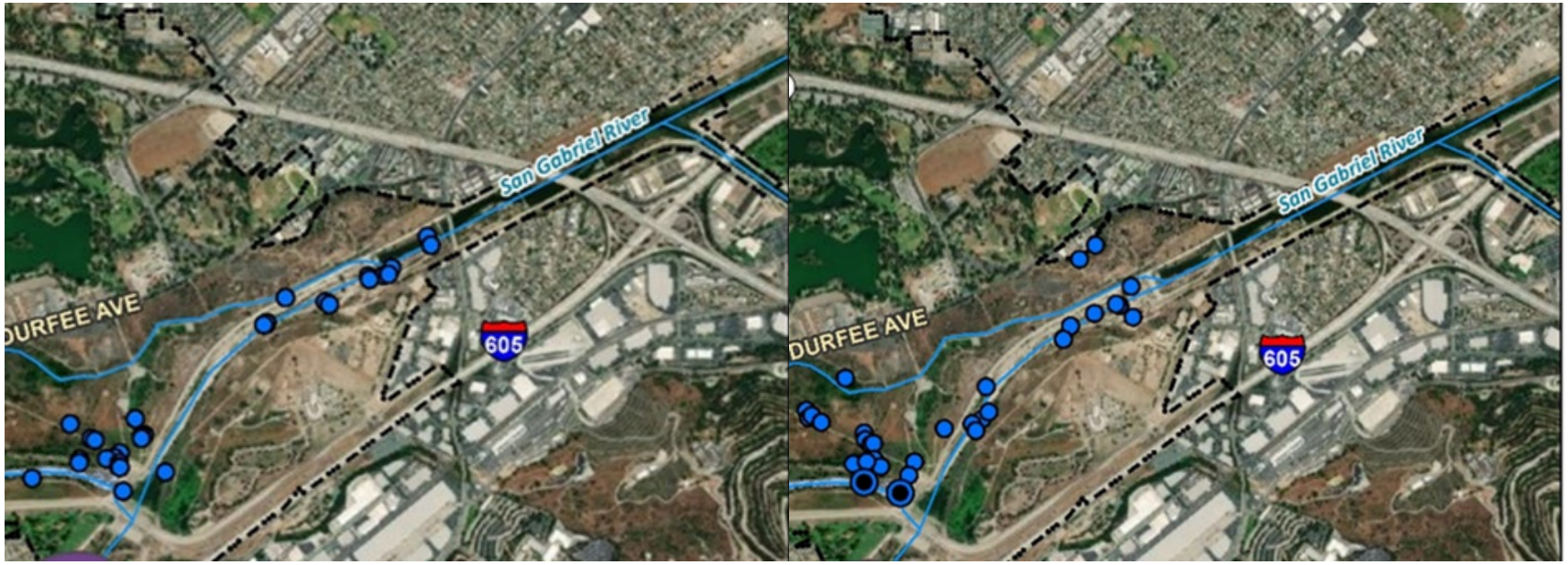


**FIGURE 14. LBVI LOCATIONS 2015 SURVEYS AND 2014 SURVEYS**

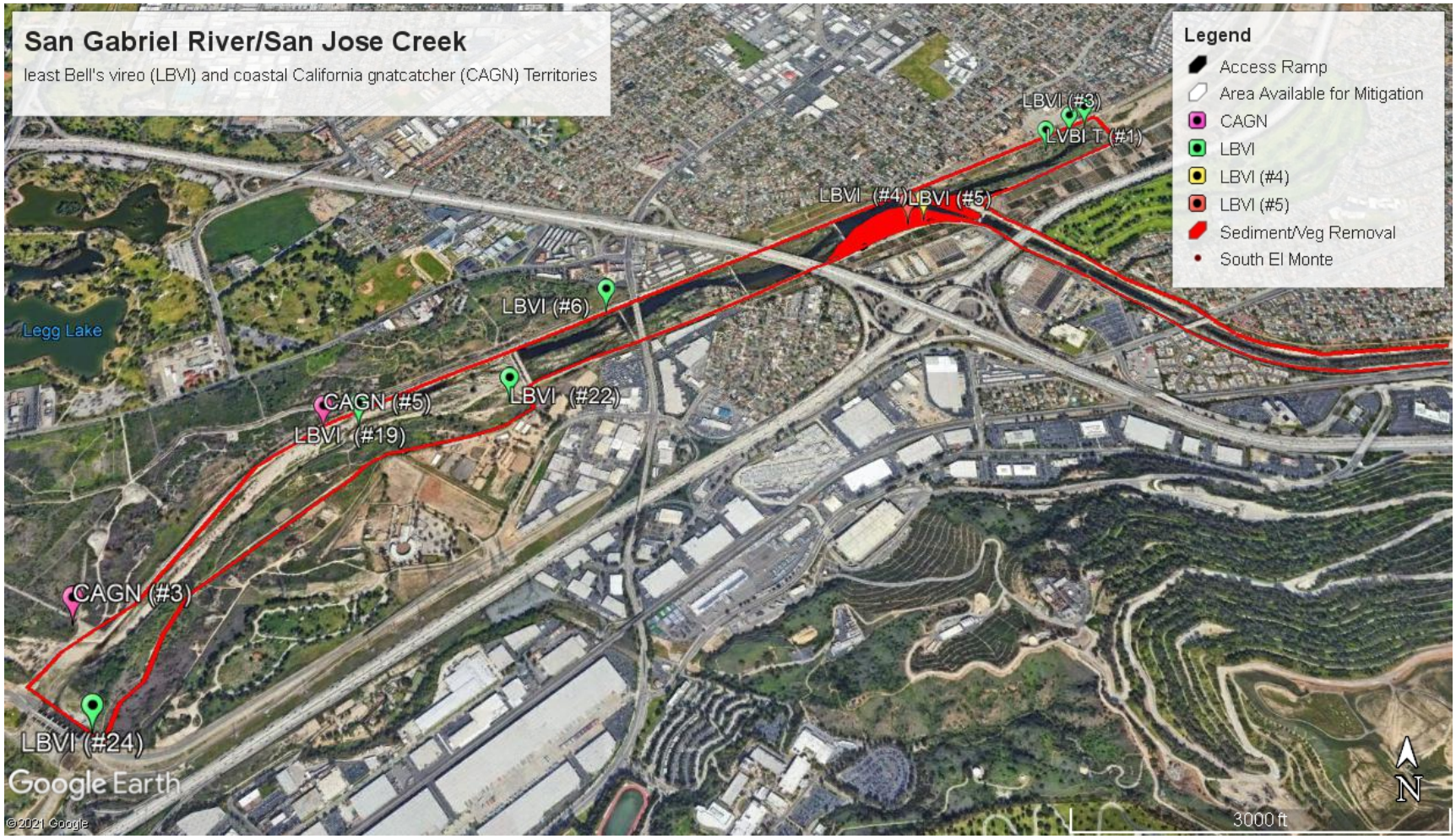


**FIGURE 15. 2019 SURVEY DATA FOR LBVI AND CAGN TERRITORIES WITHIN THE ACTION AREA**

### 2.6.2 Coastal 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 15 through August 30, 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.

Foraging by CAGN primarily consists of gleaning sessile prey from foliage while quickly moving through branches of shrubs. Larger prey items are beaten against a branch before being swallowed whole or fed to juveniles (Atwood and Bontrager 2001).

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 extend 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).


**FIGURE 16. CAGN LOCATION 2019 SURVEY AND DESIGNATED CRITICAL HABITAT**

**CAGN Designated Critical Habitat**

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.

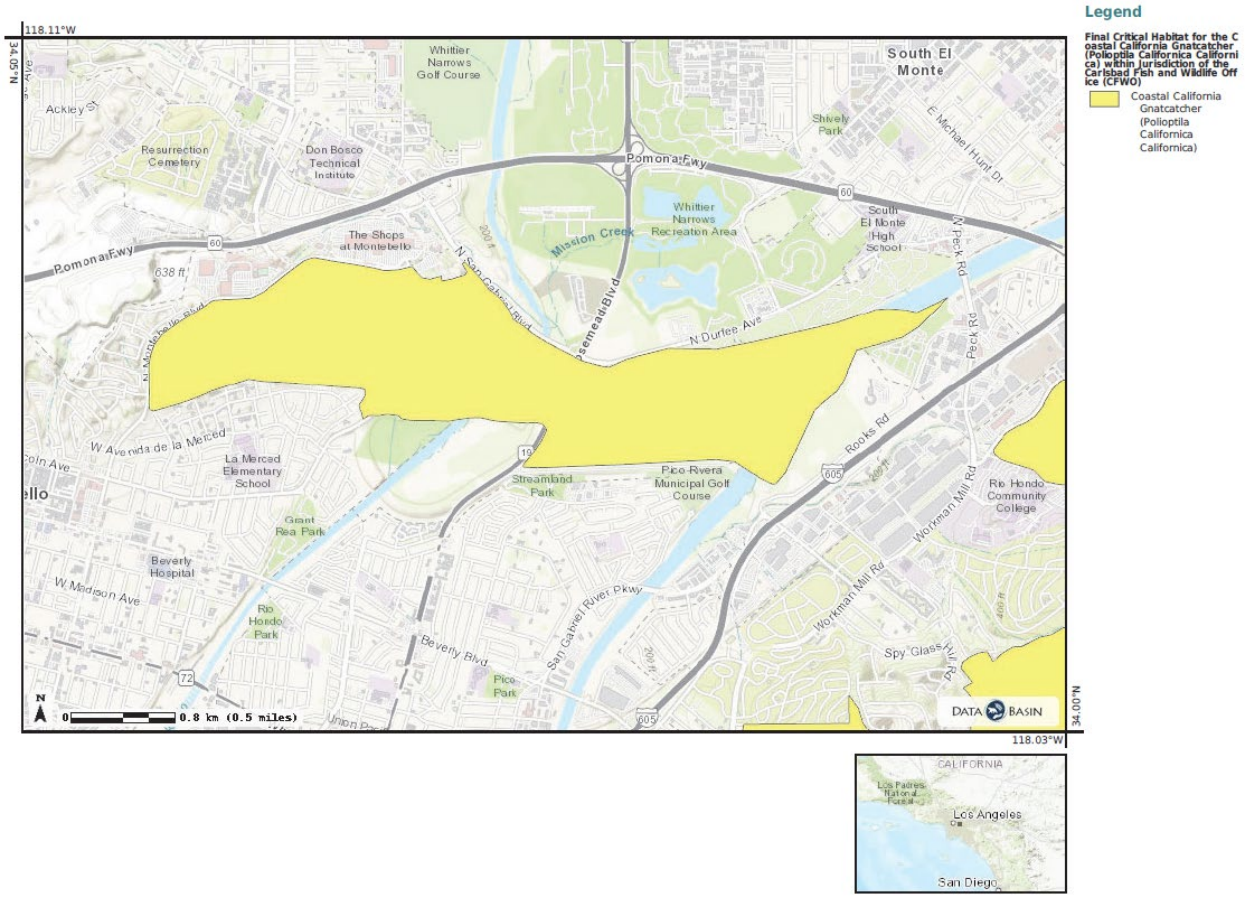


**FIGURE 17. CAGN DESIGNATED CRITICAL HABITAT**

**CAGN Survey Results**

Survey methods and analyses for CAGN are generally similar to those performed for LBVI as already described. However, CAGN location surveys were only performed in 2019. In addition, public observation data from the eBird web portal was also reviewed.

USGS biologists observed six (6) CAGN territories in the Reservoir in 2019 (Figure 16). Of the 6 observed two (2) territories were observed within the Action Area. In one location, juvenile CAGN were observed multiple times with two to three independent juveniles foraging and interacting with one another. At a second location, a single juvenile was observed quickly dispersing through disturbed riparian scrub habitat within a few hundred feet of the Action 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. The area of documented CAGN is consistent with the corridor of DCH crossing the Action Area. 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 Action 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 Action Area does not appear to be seasonally limited, as observations from nearly every month of the year have been reported in eBird.

Approximately 563 acres of CAGN DCH occurs within the Reservoir (Figure 17). This DCH is within Unit 9: East Los Angeles County. The area of documented CAGN dispersals is consistent with the corridor of DCH crossing the Action Area (Figure 16).

# Chapter 3. Effects of the Proposed Action

The "effects of the action" include all the consequences to listed species or designated critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. These effects are considered along with the environmental baseline and cumulative effects to determine the overall effects to the species. Effects of the action may occur later in time and may include consequences outside the immediate area involved in the action (50 CFR 402.02). The conservation measures listed in Chapter 1 will be implemented to avoid, minimize, or offset effects of the Proposed Action.

## Effects to LBVI Individuals

Nine (9) LVBI territories were observed with the Action 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 after its initial detection. A total of approximately six (6) acres of occupied habitat will be permanently impacted, this habitat will be permanently removed from the shoaling areas (Figure 2). Approximately nine (9) acres of the Action Area, including six acres of occupied habitat, provide preferred suitable biological characteristics within the mapped areas. Adjacent habitat near the territories (approximately 5.2 additional acres) is primarily disturbed habitat and does not contain the preferred biological characteristics for the species.

Direct and indirect impacts to LBVI include displacement of established territories causing adverse effects to seven (7) territories within the Action Area. This would result in potential permanent displacement of two territories and temporary displacement of five (5) territories. This is assuming suitable LBVI habitat is available throughout the Reservoir and that displaced LBVI throughout the Reservoir and Whittier Narrows recreational areas would be able to utilize other suitable habitat in the area. As mentioned above, riparian vegetation that contains preferred biological characteristics for this species will be permanently removed. Other indirect impacts from construction include noise, dust, and human presence. Birds use their sense of hearing to locate their young and mates, to establish and defend territories, and to locate and evade predators (Scherzinger, 1970). Dust can also visually impair vireos and degrade air quality and human presence can cause vireos to abandon territories and nests.

To avoid impacts to LBVI, the Corps will complete all sediment removal activities outside of the breeding season (i.e., project activities will not occur between March 1 to September 15) (BIO-2). Additionally, the removal of sediment will require the removal of homeless encampments, which will help to minimize disturbance to nesting activities occurring in adjacent habitat. Additional measures to minimize and avoid impacts to LBVI include (BIO-1) surveys for LBVI in spring and early summer (March 1 through September 15) annually during construction, (BIO-4) limit construction activities to designated areas, (BIO-5) weekly biological monitoring to ensure compliance, (BIO-6) and (BIO-7) pre-construction training and surveys, and (BIO-8) BMPs for erosion and pollutants.

To offset effects to LBVI from the Proposed Action, the Corps is proposing 20.2-acres of enhancement for 10-years within the Action Area (BIO-3). Enhancement is proposed within the disturbed riparian areas where invasive/exotic vegetation is dominant in the Action Area. The proposed enhancement will include removal of exotic/invasive vegetation from this area to increase the habitat value through passive restoration and create additional suitable nesting habitat for LBVI in the Action Area. A large percentage of the vegetation to be removed is exotic/invasive giant reed. Giant reed is known to degrade riparian habitat for LBVI and other species. The vegetation enhancement areas will be monitored and managed (weeded) annually after construction to reduce the potential for infestation.

Based on the analysis described above, the Corps has determined that the Proposed Action may affect, and is likely to adversely affect, LBVI.

## Effects to CAGN Individuals and Critical Habitat

CAGN juveniles were observed dispersing through the proposed enhancement areas within the Action Area. No potential permanent displacement of territories is expected because these were juvenile CAGN dispersing through the habitat within the proposed habitat enhancement areas.

To avoid potential effects to CAGN, the Corps will complete all sediment removal activities outside of the breeding season (i.e., project activities will not occur between March 1 to September 15) (BIO-2). Additionally, the removal of sediment will require the removal of homeless encampments, which will help to minimize disturbance to nesting activities occurring in adjacent habitat. Additional measures to minimize and avoid impacts to CAGN include (BIO-1) surveys for CAGN in spring and early summer (March 1 through September 15) annually during construction, (BIO-4) limit construction activities to designated areas, (BIO-5) weekly biological monitoring to ensure compliance, (BIO-6) and (BIO-7) pre-construction training and surveys, and (BIO-8) BMP’s for erosion and pollutants and sensitive species monitoring would occur through the duration of construction activities.

Upon project completion, habitat enhancement will improve habitat for CAGN and any potential impacts to CAGN designated critical habitat would be limited to enhancement activities. Based on the analysis described above, the Corps has determined that the Proposed Action may affect, but is not likely to adversely affect, CAGN or its designated critical habitat.

# **Chapter 4.** Cumulative Effects

"Cumulative effects" include the effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur in the action area subject to consultation. 50 C.F.R. 402.02.

Homeless encampments have increased substantially within the Reservoir over the last several years (circa 40-50 camps). These homeless encampments have impacted and are likely to continue to impact the understory habitat within the Action Area that are currently utilized by the LBVI for nesting and CAGN for foraging (including CAGN DCH). On occasion, local law enforcement organizations take action to control homeless encampments in the Reservoir. However, it is not possible to predict or analyze how the distribution or abundance of homeless encampments in the Reservoir will impact LBVI, CAGN or CAGN DCH in the future.

Regular equestrian and recreational use of pre-hardened and trails and access roads occurs throughout the Reservoir. Recreational facilities will continue to be used into the foreseeable future. Adjacent areas will continue to be used and developed although the Reservoir will remain primarily reserved for flood risk management purposes and compatible uses, such as recreation. Recreational users will continue to visit the Reservoir. In comparison with present conditions, the proposed project would not have a significant adverse cumulative effect on the site, as the potential impacts would be temporary from construction.

No other private or state projects are occurring or planned to occur in the Action Area, therefore the Corps has determined that there are no cumulative effects for the Proposed Project.

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# Appendix A Special-Status Species Potential to Occur

Special Status Species and their Probability to Occur

| Scientific Name | Common Name | Conservation Status | Habitat and Distribution | Flower season | Occurrence Potential |
|---|---|---|---|---|---|
| *Arctostaphylos glandulosa ssp. Gabrielensis* | San Gabriel manzanita | Fed: none<br>Calif: none<br>CRPR: 1B.2 | Perennial evergreen shrub, Chaparral on granitic soils; endemic; 595 - 1500 meters elevation | Jan - April | **Not Likely to Occur.** No suitable habitat. |
| *Astragalus brauntonii* | Braunton's milk vetch | Fed: **END**<br>Calif: none<br>CRPR:1B.1 | Subshrub or perennial herb; scattered patches in Ventura, LA, & Orange cos.; foothills below about 2100 ft. elev.; chaparral, often on carbonate soils; often follows fire or soil disturbance | Jan - Aug | **Low.** Coastal Sage scrub (CSS) present, disturbed, not found during surveys. |
| *Atriplex parishii* | Parish's brittlescale | Fed: none<br>Calif: none<br>CRPR: 1B.2 | Annual herb; Shadscale Scrub, Alkali Sink, Freshwater Wetlands, wetland-riparian; alkaline or clay soils; 1300-1675 ft elevation | Jun - Oct | **Not Likely to Occur.** No suitable habitat |
| *Atriplex serenana var. davidsonii* | Davidson's saltscale | Fed: none<br>Calif: none<br>CRPR: 1B.2 | Annual herb; alkaline.<br>• Coastal bluff scrub<br>• Coastal scrub; about 10- 200-meter elev. | Apr - Oct | **Not Likely to Occur.** No suitable habitat |
| *Berberis nevinii* | Nevin's barberry | Fed: **END**<br>Calif: **END**<br>CRPR: 1B.1 | Perennial evergreen shrub; sandy or gravelly; Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub; 70 - 825 meters | (Feb)Mar-Jun | **Low.** No suitable habitat. Observed within one mile of the Action Area |
| *Calochortus clavatus var. gracilis* | slender mariposa-lily | Fed: none<br>Calif: none<br>CRPR: 1B.2 | Bulb; chaparral, valley grassland, foothill woodland and coastal sage scrub; Ventura to Orange Cos., inland to Riverside and San Bernardino Cos.; about 1050 - 3280 ft. elev. | Mar - Jun | **Not Likely to Occur.** Outside of elevation range. |
| *Calochortus weedii* var. *intermedius* | Weed's mariposa lily | Fed: none<br>Calif: none<br>CRPR: 1B.2 | Perennial herb; shrublands, grassland, various soils, about 600 - 2800 ft. elev.; coastal southern Calif., inland to western Riverside Co. | May - Jul | **Not Likely to Occur.** No suitable habitat |

| Scientific Name | Common Name | Conservation Status | Habitat and Distribution | Flower season | Occurrence Potential |
|---|---|---|---|---|---|
| *Calochortus plummerae* | Plummer's mariposa-lily | Fed: none<br>Calif: none<br>CRPR: 4.2 | Perennial herb (bulb) that is endemic (limited) to California. Chaparral, Foothill Woodland, Yellow Pine Forest, Coastal Sage Scrub, Valley Grassland | May-Jul | **Moderate.** Habitat present |
| *Calystegia felix* | Lucky morning-glory | Fed: none<br>Calif: none<br>CRPR: 1B.1 | Annual rhizomatous herb; historically associated with wetland and marshy places, but also can be found in drier areas; meadows, seeps and riparian scrub. | May - Jul | **Low.** Riparian scrub present, not found during surveys. |
| *Centromadia parryi ssp. australis* | Southern tarplant | Fed: none<br>Calif: none<br>CRPR: 1B.1 | annual herb; salt-marsh, vernal-pools, edges | May-Nov | **Not Likely to Occur.** No suitable habitat |
| *Centromadia pungens ssp. laevis* | Smooth tarplant | Fed: none<br>Calif: none<br>CRPR: 1B.1 | Annual herb; found in alkaline soils at 330 – 2000 feet elev. within chenopod scrub, meadows, seeps, playas, riparian woodlands, valley and foothill grassland. | Apr - Sep | **Low.** Habitat present |
| *Chorizanthe parryi var. parryi* | parry's spineflower | Fed: none<br>Calif: none<br>CRPR: 1B.1 | Annual herb; Chaparral, Coastal Sage Scrub | Apr-Jun | **Moderate.** Habitat present |
| *Cladium californicum* | claifornia saw-grass | Fed: none<br>Calif: none<br>CRPR: 2B.2 | perennial grasslike herb; Occurs in wetlands freshwater-marsh habitats Freshwater Wetlands, Alkali Sink, wetland-riparian | Jun-Sep | **Not Likely to Occur.** No suitable habitat |
| *Cuscuta obtusiflora var. glandulosa* | Peruvian dodder | Fed: none<br>Calif: none<br>CRPR: 2B.2 | annual herb or vine (parasitic) that is native to California. | Jul-Oct | **Moderate.** Habitat present |
| *Dodecahema leptoceras* | Slender-horned spineflower | Fed: **END**<br>Calif: **END**<br>CRPR: 1B.1 | Annual herb; mature chaparral, cismontane woodland, coastal scrub; about 650 – 2500 feet elev. | Apr - Jun | **Low.** No suitable habitat. Heavily disturbed. |
| *Dudleya multicaulis* | Many-stemmed dudleya | Fed: none<br>Calif: none<br>CRPR: 1B.2 | Perennial herb; heavy soils or sandstone outcrops; grassland or shrubland below about 2600 ft. elev.; LA to SD Co, inland to San | Apr - Jul | **Low.** CSS habitat present. |

| Scientific Name | Common Name | Conservation Status | Habitat and Distribution | Flower season | Occurrence Potential |
|---|---|---|---|---|---|
| | | | Gabriel Mtn foothills and W Riv Co. | | |
| *Dudleya cymosa ssp. crebrifolia* | San Gabriel River dudleya | Fed: none<br>Calif: none<br>CRPR: 1B.2 | perennial herb; Northern Oak Woodland, Foothill Woodland, Chaparral, Yellow Pine Forest, Coastal Sage Scrub | Jun-Jul | **Low.** Habitat present, Heavily disturbed |
| *Dudleya densiflora* | San Gabriel Mountains dudleya | Fed: **END**<br>Calif: **END**<br>CRPR: 1B.1 | perennial herb; Chaparral, Yellow Pine Forest, Coastal Sage Scrub | Mar-Jun | **Low.** Habitat present, Heavily disturbed |
| *Dudleya multicaulis* | Many-stemmed dudleya | Fed: none<br>Calif: none<br>CRPR: 1B.2 | perennial herb; perennial herb, Chaparral, Valley Grassland, Coastal Sage Scrub | Apr-Jul | **Low.** Habitat present, Heavily disturbed |
| *Galium grande* | San Gabriel bedstraw | Fed: none<br>Calif: none<br>CRPR: 1B.2 | Shrub; Chaparral, Foothill Woodland, Yellow Pine Forest, Mixed Evergreen Forest | Jan-Jul | **Not Likely to Occur.** No suitable habitat**.** |
| *Helianthus nuttallii ssp. parishii* | Los Angeles sunflower | Fed: none<br>Calif: none<br>CRPR: 1A | perennial herb (rhizomatous); Associated with freshwater-marsh, saltmarsh, coastal Coastal Salt Marsh, wetland-riparian | Aug-Oct | **Not Likely to Occur. E**xtinct |
| *Horkelia cuneata var. puberula* | Mesa horkelia | Fed: none<br>Calif: none<br>CRPR: 1B.1 | perennial herb; Dry, sandy, coastal chaparral; | Feb-Jul | **Not Likely to Occur.** No suitable habitat |
| *Imperata brevifolia* | California satintail | Fed: none<br>Calif: none<br>CRPR: 2B.1 | Perennial grass; Chaparral, Coastal Sage Scrub, Creosote Bush Scrub, wetland-riparian | Sept-May | **Low.** Habitat present. Heavily disturbed |
| *Juglans californica* var. *californica* | So. California black walnut | Fed: none<br>Calif: none<br>CRPR: 4.2 | Tree or large shrub; woodland, coastal sage scrub, chaparral, below about 3000 ft. elev.; Ventura, LA, Orange, San Bernardino cos. | Mar - Aug | **High.** Habitat present |
| *Lasthenia glabrata ssp. coulteri* | Coulter's goldfields | Fed: none<br>Calif: none<br>CRPR: 1B.1 | Annual herb; associated with saltmarsh, playas, vernal-pools, coastal Alkali Sink, Coastal Salt Marsh, Freshwater Wetlands, wetland-riparian | Feb-Jun | **Not Likely to Occur.** No suitable habitat |

| Scientific Name | Common Name | Conservation Status | Habitat and Distribution | Flower season | Occurrence Potential |
|---|---|---|---|---|---|
| *Lepidium virginicum* var. *robinsonii* | Robinson's peppergrass | Fed: none<br>Calif: none<br>CRPR: 4.3 | Ephemeral spring annual; shrublands; sea level to about 2900 ft. elev.; LA Co, most Channel Islands, inland to W Riv & San Bern cos, S to Baja Calif | Jan - Jul | **Not Likely to Occur.** No suitable habitat |
| *Linanthus concinnus* | San Gabriel linanthus | Fed: none<br>Calif: none<br>CRPR: 1B.2 | Annual herb; Red Fir Forest, Yellow Pine Forest | Apr-Jul | **Not Likely to Occur.** No suitable habitat**.** |
| *Muhlenbergia californica* | California muhly | Fed: none<br>Calif: none<br>CRPR:4.3 | perennial grass (rhizomatous); Chaparral, Yellow Pine Forest, Coastal Sage Scrub, wetland-riparian | Jun-Sept | **Moderate.** Habitat present |
| *Navarretia prostrata* | prostrate vernal pool navarretia | Fed: none<br>Calif: none<br>CRPR: 1B.2 | Annual herb; Coastal Sage Scrub, wetland-riparian | Apr-Jul | **Low.** Habitat present |
| *Orcuttia californica* | California Orcutt grass | Fed: none<br>Calif: none<br>CRPR: 1B.1 | Annual grass; Valley Grassland, Freshwater Wetlands, wetland-riparian | Apr-Aug | **Not Likely to Occur.** No suitable habitat |
| *Orobanche valida ssp. valida* | Rock Creek broomrape | Fed: none<br>Calif: none<br>CRPR: 1B.2 | perennial herb (parasitic); Chaparral, Pinyon-Juniper Woodland | May-Sept | **Not Likely to Occur.** No suitable habitat |
| *Phacelia stellaris* | Brand's star phacelia | Fed: none<br>Calif: none<br>CRPR: 1B.1 | Annual herb; Coastal Strand, Coastal Sage Scrub | Mar-Jun | **Low.** Habitat present |

| Scientific Name | Common Name | Conservation Status | Habitat and Distribution | Flower season | Occurrence Potential |
|---|---|---|---|---|---|
| *Pseudognaphalium leucocephalum* | White rabbit-tobacco | Fed: none<br>Calif: none<br>CRPR: 2.2 | Perennial herb; 100 - 7000 ft. elev.; sandy and gravelly chaparral, cismontane woodland, coastal scrub and riparian woodland | Jul - Dec | **Moderate**. Habitat present but not found during surveys. |
| *Ribes divaricatum var. parishii* | Parish's gooseberry | Fed: none<br>Calif: none<br>CRPR: 1A | Perennial shrub; endemic (limited) to California Coastal Sage Scrub, wetland-riparian, and riparian | Feb - Apr | **Not Likely to Occur.** Presumed extinct. |
| *Scutellaria bolanderi ssp. austromontana* | southern mountains scullcap | Fed: none<br>Calif: none<br>CRPR: 1B.2 | perennial herb (rhizomatous); endemic (limited) to California. Chaparral, Foothill Woodland, Yellow Pine Forest, wetland-riparian | Jun - Aug | **Not Likely to Occur.** No suitable habitat. |
| *Sidalcea neomexicana* | Salt spring checkerbloom | Fed: none<br>Calif: none<br>CRPR: 2B.2 | Perennial her; alkaline or mesic soils in chaparral, coastal scrub, lower montane coniferous forest, mojavean desert scrub or playas at 50 – 3000 ft. elev. | Mar – Jun | **Not Likely to Occur.** No suitable habitat. |
| *Symphyotrichum defoliatum* | San Bernardino Aster | Fed: none<br>Calif: none<br>CRPR: 1B.2 | Perennial rhizomatous herb; near ditches, streams, springs, cismontane woodland, coastal scrub, lower montane coniferous forest, meadows, seeps, marshes, swamps and valley and foothill grassland; 1500 – 5800 ft. elev | Jul – Dec | **Not Likely to Occur.** Outside of elevation range. |
| *Symphyotrichum greatae* | Greata's aster | Fed: none<br>Calif: none<br>CRPR: 1B.3 | perennial herb (rhizomatous) endemic (limited) to California. Chaparral | Jun - Oct | **Not Likely to Occur.** Outside of elevation range |
| *Thelypteris puberula var. sonorensis* | Sonoran maiden fern | Fed: none<br>Calif: none<br>CRPR: 2B.2 | Pteridophyte, is a fern (rhizomatous) that is native to California, Arizona, Baja California, Sonora, Mexico. Meadows and seeps, wetland-riparian | Jan - Sept | **Not Likely to Occur.** Outside of elevation range. |
| **VEGETATION COMMUNITIES** | | | | | |

| Scientific Name | Common Name | Conservation Status | Habitat and Distribution | Flower season | Occurrence Potential |
|---|---|---|---|---|---|
| Southern California Arroyo Chub/Santa Ana Sucker Stream | | CNDDB | | | **Not present** |
| Southern Sycamore Alder Riparian Woodland | | CNDDB | Tall deciduous streamside woodland that is dominated by western sycamore and occasional white alders. Seldom form closed canopies and appear as scattered trees. | | **Not present.** |
| Southern Coast Live Oak Riparian Forest | | CNDDB | | | **Not present.** |
| Canyon Live Oak Ravine Forest | | CNDDB | | | **Not present.** |
| *Open Engelmann Oak Woodland* | | CNDDB | | | **Not present** |
| *California Walnut Woodland* | | CNDDB | Consists of mainly California walnut trees with a semi open canopy that allows for a grassy understory. Typically occurs in relatively moist areas with fine textured soils near slopes. | | **Not present** |
| *Riversidian Alluvial Fan Sage Scrub* | | CNDDB | | | **Not present** |
| *Walnut Forest* | | CNDDB | Consists of mainly California walnut trees with a semi open canopy that allows for a grassy understory. Typically occurs in relatively moist areas with fine textured soils near slopes. | | **Not Present** |
| *San Gabriel manzanita* | | Fed: none<br>Calif: none<br>CRPR: 1B.2 | Perennial evergreen shrub, Chaparral on granitic soils; endemic; 595 - 1500 meters elevation | Jan - April | **Not Likely to Occur.** No suitable habitat. |

Special Status Wildlife and their Probability to Occur Within the Project Area

| Scientific Name | Common Name | Conservation Status | Habitat and Distribution | Occurrence Probability in Project Area |
|---|---|---|---|---|
| **INVERTEBRATES** | | | | |
| *Bombus crotchii* | Crotch bumble bee | Fed: none<br>Calif: **Candidate END** | Inhabits open grassland and scrub habitats in CA. nesting occurs underground. | **Low.** Habitat quality is less than ideal for this species to occur. |
| *Palaeoxenus dohrni* | Dohrn's elegant eucnemid beetle | Fed: none<br>Calif: none | Largely found in a mixed coniferous forest system in the mountains. | **Not likely to occur**: No suitable habitat |
| **FISH** | | | | |
| *Catostomus santaanae* | Santa Ana sucker | Fed: **THR**<br>Calif: none | Major cismontane stream systems in S Calif. incl. Sta Ana Riv., formerly below 3000 ft. elev.; extant populations near Riverside and downstream.<br>Year-round | **Low.** This species is known from portions of the San Gabriel River where suitable habitat occurs. Potentially could be present during times of heavy flows if washed downstream from occupied habitat. |
| *Gila orcutti* | Arroyo chub | Fed: none<br>Calif: SSC | Slow-flowing sections or backwaters, cismontane stream systems in S Calif. incl. Sta Ana Riv.; extant populations near Riverside and down-stream; introduced populations occur outside historic native range Year-round | **Low.** Re-introduced to the Los Angeles basin. |
| *Rhinichthys osculus ssp. 3* | Santa Ana speckled dace | Fed: none<br>Calif: SSC | Speckled Dace prefer habitat that includes clear, well oxygenated water, with movement due to a current or waves. Prefer areas with deep cover or overhead protection from vegetation or woody debris; small streams. | **Low.** Range historically includes the San Gabriel and Los Angeles basin but have not been recently documented. |
| **AMPHIBIANS** | | | | |
| *Bufo californicus* | Arroyo toad | Fed: **END**<br>Calif: none | The arroyo toad is found in the southern part of the Coast Ranges of California; Prefers semi-arid regions near washes or intermittent streams. Habitats used | **Not likely to occur:** No suitable habitat |

| Scientific Name | Common Name | Conservation Status | Habitat and Distribution | Occurrence Probability in Project Area |
|---|---|---|---|---|
| | | | include valley-foothill and desert riparian as well as a variety of more arid habitats including desert wash, palm oasis, and Joshua tree, mixed chaparral and sagebrush. | |
| *Spea hammondii* | Western spadefoot | Fed: none<br>Calif: SSC | Breeds in quiet streams, temporary ponds, vernal pools, burrows in sand during dry season; sea level to about 4500 ft. elev.; Central Val to N Baja. October-April | **Not likely to occur**: No suitable habitat |
| *Rana boylii* | foothill yellow-legged frog | Fed: none<br>Calif: **END** | Frequents rocky streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands. Sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools | **Low.** Endangered in Southern California, where it is absent from most of its historic range. |
| *Rana muscosa* | southern mountain yellow-legged frog | Fed: **END**<br>Calif: **END** | Frequents rocky streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands. Sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools | **Not likely to occur:** Endangered in Southern California and the southern Sierra Nevada Mountains, where it is absent from most of its historic range. Outside of the elevation range. |
| *Taricha torosa* | Coast Range newt | Fed: none<br>Calif: SSC | found commonly in the Coast Ranges of California.<br>Occurs primarily in valley-foothill hardwood, valley foothill hardwood-conifer, coastal scrub and mixed chaparral, but is also known from annual grassland and mixed conifer types. | **Low:** Some suitable habitat available |
| **REPTILES** | | | | |
| *Aniella stebbinsi* | Southern California legless lizard | Fed: none<br>CA: SSC | Sandy or loose loamy soils under sparse vegetation; soil moisture is essential; prefer soils with high moisture content. | **Low.** Although scattered records occur for this subspecies throughout western Los Angeles County, the project area supports only marginal |

| Scientific Name | Common Name | Conservation Status | Habitat and Distribution | Occurrence Probability in Project Area |
|---|---|---|---|---|
| | | | | habitat, at best due to its isolation, frequent flooding, and surrounding disturbance; not identified during surveys. |
| *Arizona elegans occidentalis* | California glossy snake | Fed: none<br>Calif: SSC | Found in northern California to Baja California. Inhabits arid scrub, rocky washes, grasslands, chaparral | **Moderate.** Suitable habitat present, not observed during surveys |
| *Aspidoscelis tigris stejnegeri* | coastal whiptail | Fed: none<br>Calif: SSC | This subspecies is found in coastal Southern California; inhabits a variety of ecosystems, primarily hot and dry open areas with sparse foliage - chaparral, woodland, and riparian areas. | **High.** Suitable habitat present, not observed during surveys |
| *Thamnophis hammondii* | two- striped garter | Fed: none<br>Calif: SSC | Found in southern California where it ranges east through the Transverse Ranges, and south through the coastal area and the Peninsular Ranges into northern Baja California. | **High.** Prefers water sources - pools, creeks, cattle tanks, and others, often in rocky areas. Associated vegetation: oak woodland, willow, coastal sage scrub, scrub oak, sparse pine, chaparral, and brushland. |
| *Emys marmorata* | Western pond turtle | Fed: none<br>Calif: SSC | Perennial ponds, streams; breed & overwinter in adjacent uplands; coastal S and cent. Calif., NW Baja Calif., below about 4800 ft. elev. | **Low.** Suitable habitat present. This species was not observed during surveys |
| *Phrynosoma blainvillii*" | Coast horned lizard | Fed: none<br>CA: SSC | Sandy soils, forest, shrubland or grassland; W Calif. from LA Co through Baja Calif., below about 6000 ft. elev. | **Low:** This species has been known to occur in a variety of habitats but is known in this region to be near foothills and open areas. |
| **BIRDS** | | | | |
| *Accipiter cooperii* | Cooper's hawk | Fed: none<br>Calif: SSC | Nests and hunts in forest & woodland, also forages in open areas; most of US, Central and S America. | **Present:** This species was last observed flying over and foraging in the project area during surveys. Nesting habitat is available within and near the project area; however, no active nests |

| Scientific Name | Common Name | Conservation Status | Habitat and Distribution | Occurrence Probability in Project Area |
|---|---|---|---|---|
| | | | | have been found or reported. |
| *Aimophila ruficeps canescens* | Southern California rufous-crowned sparrow | Fed: none<br>Calif: SSC | Valley foothill-hardwood, hardwood conifer forest, chaparral, valley-foothill riparian forest, coniferous forest, wet meadows | **Not Likely to Occur.** No suitable habitat. |
| *Ammodramus savannarum* | Grasshopper sparrow | Fed: none<br>Calif: SSC | Dense grasslands on rolling hills, lowland plains; in valleys and on hillsides on lower mountain slopes; favors native grasslands with a mix of grasses, forbs, and scattered shrubs. | **Not Likely to Occur.** No suitable habitat. |
| *Athene cunicularia*) | Burrowing owl | Fed: none<br>Calif: SSC<br>(burrow sites) | Open, dry perennial or annual grasslands, deserts, and scrublands characterized by low-growing vegetation; subterranean nester, dependent upon burrowing mammals, particularly California ground squirrels | **Low.** This species has been known to occur in a variety of habitats but is known in this region to be near disturbed open areas near foothills. |
| *Buteo swainsoni* | Swainson's hawk | Fed: none<br>Calif: **THR** | Breeds in interior valleys and high desert with scattered large trees or riparian woodland corridors surrounded by open fields, desert scrub or agriculture. | **Low:** Although this species was formerly common in southern California, it no longer breeds in the region. |
| *Campylorhynchus brunneicapillus sandiegensis* | Cactus wren | Fed: none<br>Calif: SSC<br>MSHCP: covered | Species require tall opuntia cactus for nesting and roosting. | **Not Likely to Occur**. No suitable habitat. |
| *Coccyzus americanus occidentalis* | Western yellow-billed cuckoo | Fed: **THR**<br>Calif: **END** | Strongly associated with large complex riparian woodlands. | **Low.** This species was not detected during surveys of the proposed project area; this species is not expected to use the project area as it is not as continuous as the species prefers. |
| *Cypseloides niger* | black swift | Fed: none<br>Calif: SSC | Found along the coast of California declining in breeding. Prefers coastal cliffs. | **Not Likely to Occur**. No suitable habitat. |
| *Empidonax traillii extimus* | Southwestern willow flycatcher | Fed: **END**<br>Calif: **END**<br>(nesting) | Riparian obligate. Breeds in willow riparian forests & shrublands at scattered locations in SW US and N Baja; | **Low.** Known from three surrounding USGS quads. Successful nesting was documented in the |

| Scientific Name | Common Name | Conservation Status | Habitat and Distribution | Occurrence Probability in Project Area |
|---|---|---|---|---|
| | | | winters in Cent. Amer.; threatened by habitat loss and cowbird parasitism. | Prado Basin from 1988 to 2007; not detected in the project area during previous annual surveys. |
| *Falco peregrines* | American peregrine falcon | Fed: none<br>Calif: FP | Prefers coastal estuaries and other wetlands; occurs in S. California as a rare migrant | **Not Likely to Occur.** No suitable habitat. |
| *Icteria virens* | Yellow-breasted chat | Fed: none<br>Calif: SSC (nesting) | Summer resident; inhabits riparian thickets of willow and other brushy tangles near water courses; nests in low, dense riparian vegetation; nests and forages within 10 feet of ground | **High.** Although not observed within the project area this species is known to occur in and near riparian habitat; project area supports suitable nesting habitat. |
| *Polioptila californica californica* | Coastal California gnatcatcher | Fed: **THR**<br>Calif: SSC | Obligate, permanent resident of coastal sage scrub below 2500 ft in southern California; low scrub in arid washes, on mesas and slopes | **Moderate:** This species was observed during surveys. Juveniles were observed dispersing through small patches of disturbed coastal sage scrub within the project site. |
| *Riparia riparia* | Bank swallow | Fed: none<br>Calif: **THR** | Generally found near water, both breeding and in migration. Preferred habitats include riverbanks, creeks seashores, and lakes. | **Moderate**: Species is relatively common within riparian corridors. |
| *Vireo bellii pusillus* | Least Bell's vireo | Fed: **END**<br>Calif: **END** | Summer resident of southern California in low riparian habitats in vicinity of water or dry river bottoms; found below 2000 ft; nests placed along margins of bushes or on twigs projecting into pathways, usually willow, mesquite, and mulefat. | **Present.** This species has been documented breeding in and adjacent to the project area (USGS, 2019). |
| **MAMMALS** | | | | |
| *Corynorhinus townsendii* | Townsend's big-eared bat | Fed: none<br>Calif: SSC | Found throughout California but now considered uncommon; is most abundant in mesic habitats. Roosts in caves building crevices, tunnels, mines. | **Low:** Lacks preferred habitat for species to roost |
| *Eumops perotis* | Western mastiff bat | Fed: none | Found on costal range | **Moderate:** Suitable |

| Scientific Name | Common Name | Conservation Status | Habitat and Distribution | Occurrence Probability in Project Area |
|---|---|---|---|---|
| *californicus* | | Calif: SSC | of southern California; prefers open, semi-arid to arid habitats | habitat present; previously thought to have been extirpated. |
| *Lasionycteris noctivagans* | Silver-haired bat | Fed: none<br>Calif: SSC | 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. Summer range is generally below 2750 m | **Low:** Lacks preferred habitat for species to roost |
| *Lasiurus blossevillii* | Western red bat | Fed: none<br>Calif: SSC | Found locally common in some areas of California, occurring from Shasta Co. to the Mexican border, west of the Sierra Nevada/Cascade crest and deserts. Roosting habitat includes forests and woodlands from sea level up through mixed conifer forests. | **Low:** Suitable riparian habitat available. |
| *Lasiurus cinereus* | hoary bat | Fed: none<br>Calif: SSC | Found at any location in California, although distribution patchy in southeastern deserts. This common, solitary species winters along the coast and in southern California, breeding inland and north of the winter range. | **Low:** Lacks preferred habitat for species. |
| *Lasiurus xanthinus* | Western yellow bat | Fed: none<br>Calif: SSC | The western yellow bat is uncommon in California, known only in Los Angeles and San Bernardino south to the Mexican border. This species has been recorded below 600 m (2000 ft) in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. | **Low:** Suitable riparian habitat available |
| *Nyctinomops femorosaccus* | pocketed free-tailed bat | Fed: none<br>Calif: SSC | The pocketed free-tailed bat is found in Riverside, | **Not Likely to Occur.** No suitable habitat. |

| Scientific Name | Common Name | Conservation Status | Habitat and Distribution | Occurrence Probability in Project Area |
|---|---|---|---|---|
| | | | San Diego, and Imperial cos. This species is rare in California but is more common in Mexico. Habitats used include pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis. | |
| *Nyctinomops macrotis* | big free-tailed bat | Fed: none<br>Calif: SSC | Generalist predator, mainly on small mammals; many habitats, US, Mexico, S Canada (excl. deserts). | **High:** Species is relatively common within riparian corridors, but rarely observed. |
| *Lepus californicus bennettii* | black-tailed jackrabbit | Fed: none<br>Calif: SSC | Common throughout the state, except at the highest elevations. Abundant at lower elevations in herbaceous and desert-shrub areas and open, early stages of forest and chaparral habitats. | **Not Likely to Occur.** Lacks preferred habitat |
| *Onychomys torridus ramona* | southern grasshopper mouse | Fed: none<br>Calif: SSC | Common in arid desert habitats of California. Alkali desert scrub and desert scrub habitats are preferred including succulent shrub, wash, and riparian areas. Also occurs in coastal scrub, mixed chaparral, sagebrush, low sage, and bitterbrush habitats. | **High:** Suitable habitat present; common in scrub habitats. |
| *Ovis canadensis nelsoni* | desert bighorn sheep | Fed: none<br>Calif: **FP** | Uncommon in California; Prefers alpine dwarf-shrub, low sage, sagebrush, bitterbrush, pinyon-juniper, palm oasis, desert riparian, desert succulent shrub, desert scrub, subalpine conifer, perennial grassland, montane chaparral, and montane riparian (DeForge 1980, Monson and Sumner 1980, Wehausen 1980). ommon in California; | **Not Likely to Occur.** No suitable habitat. |
| *Taxidea taxus* | American badger | Fed: none | Uncommon, permanent | **Not Likely to Occur.** |

| Scientific Name | Common Name | Conservation Status | Habitat and Distribution | Occurrence Probability in Project Area |
|---|---|---|---|---|
| | | Calif: SSC | resident found throughout California. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. | Lacks preferred suitable habitat. |

# Appendix B Species Observed

## Observed Plants Species List

| | |
|---|---|
| Eudicots | |
| Muskroot Family | Adoxaceae |
| blue elderberry | *Sambucus nigra ssp. caerulea* |
| Fig-Marigold Family | Aizoaceae |
| small-flowered iceplant | *Mesembryanthemum nodiflorum** |
| Amaranth Family | Amaranthaceae |
| tumbling pigweed | *Amaranthus sp.* (dried)* |
| Sumac Family | Anacardiaceae |
| Peruvian pepper tree | *Schinus molle** |
| poison oak | *Toxicodendron diversilobum* |
| Carrot Family | Apiaceae |
| common celery | *Apium graveolens** |
| common poison hemlock | *Conium maculatum** |
| Sunflower Family | Asteraceae |
| bur-sage | *Ambrosia acanthicarpa (seedling on bluff)* |
| California sagebrush | *Artemisia californica* |
| Douglas' or California mugwort | *Artemisia douglasiana* |
| coyote brush or chaparral broom | *Baccharis pilularis* |
| mule fat | *Baccharis salicifolia ssp. salicifolia* |
| California brickellbush | *Brickellia californica* |
| calendula | *Calendula officinalis** |
| Italian thistle | *Carduus pycnocephalus var. pycnocephalus** |
| tocalote/Maltese star thistle | *Centaurea melitensis** |
| common horseweed | *Erigeron canadensis* |

| | |
|---|---|
| Australian brass-buttons | *Cotula australis** |
| California encilia | *Encelia californica* |
| grassland goldenbush | *Ericameria palmeri var. pachylepis* |
| gazania | *Gazania linearis** |
| western sunflower | *Helianthus annuus* |
| bristly ox-tongue | *Helminthotheca echioides** |
| coastal goldenbush | *Isocoma menziesii* |
| white everlasting | *Pseudognaphalium microcephalum* |
| Spanish sunflower | *Pulicaria paludosa** |
| common groundsel | *Senecio vulgaris** |
| common sow thistle | *Sonchus oleraceus** |
| common dandelion | *Taraxacum officinale** |
| earless crown beard | *Verbesina encelioides ssp. exauriculata** |
| spiny clotbur | *Xanthium spinosum* |
| Borage Family | Boraginaceae |
| common fiddleneck | *Amsinckia intermedia* |
| rigid fiddleneck | *Amsinckia menziesii* |
| slender pectocarya | *Pectocarya linearis ssp. ferocula* |
| common phacelia | *Phacelia distans* |
| Mustard Family | Brassicaceae |
| black mustard | *Brassica Nigra** |
| sahara mustard | *Brassica tournefortii** |
| shepherd's purse | *Capsella bursa-pastoris** |
| shortpod mustard | *Hirschfeldia incana** |
| white water cress | *Nasturtium officinale** |
| London rocket | *Sisymbrium irio** |
| Cactus Family | Cactaceae |
| Indian fig | *Opuntia ficus-indica** |

| Goosefoot Family | Chenopodiaceae |
|---|---|
| Australian saltbush | *Atriplex semibaccata** |
| Russian thistle | *Salsola tragus** |
| Morning-Glory Family | Convolvulaceae |
| common morning-glory | *Ipomoea purpurea** |
| Stonecrop Family | Crassulaceae |
| sand pigmy-stonescrop/pygmy-weed | *Crassula connata* |
| Gourd Family | Cucurbitaceae |
| chilicothe/wild cucumber | *Marah macrocarpa* |
| watermelon | *Citrullus lanatus* |
| Spurge Family | Euphorbiaceae |
| rattlesnake spurge | *Euphorbia albomarginata* |
| California croton | *Croton californicus* |
| doveweed / turkey mullein | *Croton setiger* |
| castor bean | *Ricinus communis** |
| Legume Family | Fabaceae |
| coastal deerweed | *Acmispon glaber* |
| arroyo lupine | *Lupinus succulentus* |
| California burclover | *Medicago polymorpha** |
| white sweetclover | *Melilotus albus** |
| Geranium Family | Geraniaceae |
| red-stemmed filaree | *Erodium cicutarium** |
| Mint Family | Lamiaceae |
| common horehound | *Marrubium vulgare** |
| Mallow Family | Malvaceae |
| cheeseweed | *Malva parviflora** |
| Montia Family | Montiaceae |
| red maids | *Calandrinia ciliata* |

| Figwort Family | Scrophulariaceae |
|---|---|
| prostrate myoporum | *Myoporum parvifolium** |
| Myrtle Family | Myrtaceae |
| gum | *Eucalyptus sp.** |
| Four-O'clock Family | Nyctaginaceae |
| bougainvillea | *Bougainvillea sp.** |
| Olive Family | Oleaceae |
| velvet ash/Arizona flowering-ash | *Fraxinus sp.* |
| Lopseed Family | Phrymaceae |
| seep monkeyflower | *Erythranthe guttata* |
| Buckwheat Family | Polygonaceae |
| California buckwheat | *Eriogonum fasciculatum* |
| willow smartweed | *Persicaria lapathifolia* |
| sheep sorrel | *Rumex acetosella** |
| willow dock | *Rumex sp. (seedling)* |
| Rose Family | Rosaceae |
| toyon / christmas berry | *Heteromeles arbutifolia* |
| California rose | *Rosa californica* |
| California blackberry | *Rubus ursinus* |
| Willow Family | Salicaceae |
| Fremont cottonwood | *Populus fremontii ssp. fremontii* |
| black willow | *Salix goodingii* |
| red willow | *Salix laevigata* |
| arroyo willow | *Salix lasiolepis* |
| Quassia Family | Simaroubaceae |
| Tree of heaven | *Ailanthus Altissima** |
| Nightshade Family | Solanaceae |
| tree tobacco | *Nicotiana glauca** |

| | |
|---|---|
| white horse-nettle | *Solanum elaeagnifolium** |
| Tamarisk Family | Tamaricaceae |
| Mediterranean tamarix | *Tamarix ramosissima** |
| Nettle Family | Urticaceae |
| hoary nettle | *Urtica dioica ssp. holosericea* |
| dwarf nettle | *Urtica urens** |
| Vervain Family | Verbenaceae |
| lantana | *Lantana sp.** |
| Mistletoe Family | Viscaceae |
| big leaf mistletoe | *Phoradendron leucarpum ssp. macrophyllum* |
| Grape Family | Vitaceae |
| desert wild grape | *Vitis girdiana* |
| Monocots | |
| Palm Family | Arecaceae |
| Canary Island palm | *Phoenix canariensis** |
| Mexican fan palm | *Washingtonia robusta** |
| Sedge Family | Cyperaceae |
| tall umbrella-sedge | Cyperus eragrostis (? No inflorescence) |
| sedge | Scirpus sp. (seedling) |
| Iris Family | Iridaceae |
| fortnight lily | *Dietes sp.** |
| Grass Family | Poaceae |
| giant reed | *Arundo donax** |
| slender wild oat | *Avena spp.** |
| ripgut grass | *Bromus spp.** |
| bermuda grass | *Cynodon dactylon** |
| smilo grass / millett ricegrass | *Stipa miliacea var. miliacea [Piptatherum miliaceum]** |

| | |
|---|---|
| Cattail Family | Typhaceae |
| broad-leaved cattail | *Typha latifolia* |

Non-native species are indicated by an asterisk. Special-status species are indicated by two asterisks. Other species may have been overlooked or inactive/absent because of the season. Plants were identified using keys, descriptions, and illustrations in Baldwin et al (2012) and other regional references. Wildlife taxonomy and nomenclature generally follow Stebbins (2003) for amphibians and reptiles, AOU (1998) for birds, and Wilson and Ruff (1999) for mammals.

Observed Wildlife Species List

| COMMON NAME | SCIENTIFIC NAME |
|---|---|
| VERTEBRATE ANIMALS | |
| AMPHIBIANS | AMPHIBIA |
| Treefrogs and Allies | Hylidae |
| California treefrog | *Pseudacris cadaverina* |
| REPTILES | REPTILIA |
| Spiny Lizards, Horned Lizards, etc. | Phrynosomatidae |
| Western fence lizard | *Sceloporus occidentalis* |
| BIRDS | AVES |
| Cormorants | Phalacrocoracidae |
| double-crested cormorant | *Phalacrocorax auritus* |
| Herons and Bitterns | Ardeidae |
| great egret | *Ardea alba* |
| Vultures | Cathartidae |
| turkey vulture | *Cathartes aura* |
| Geese and Ducks | Anatidae |
| Mallard | *Anas platyrhynchos* |
| Hawks, Eagles and Kites | Accipitridae |
| white-tailed kite | *Elanus leucurus* |

| | | |
|---|---|---|
| | northern harrier | *Circus hudsonius* |
| | Cooper’s hawk | *Accipiter cooperii* |
| | red-shouldered hawk | *Buteo lineatus* |
| | red-tailed hawk | *Buteo jamaicensis* |
| Falcons | | Falconidae |
| | American kestrel | *Falco sparverius* |
| Gulls and Terns | | Laridae |
| | California gull | *Larus californicus* |
| Pidgeons and Doves | | Columbidae |
| | mourning dove | *Zenaida macroura* |
| Cuckoos and Roadrunners | | Cuculidae |
| | greater roadrunner | Geococcyx californianus |
| Owls | | Strigidae |
| | great horned owl | *Bubo virginianus* |
| Hummingbirds | | Trochilidae |
| | Anna’s hummingbird | *Calypte anna* |
| Woodpeckers | | Picidae |
| | nuttall’s woodpecker | *Dryobates nuttallii* |
| | downy woodpecker | *Dryobates pubescens* |
| | Northern flicker | *Colaptes auratus* |
| Tyrant Flycatchers | | Tyrannidae |
| | black phoebe | *Sayornis nigricans* |
| | Say’s phoebe | *Sayornis saya* |
| | Cassin's kingbird | *Tyrannus vociferans* |
| Vireos | | Vireonidae |
| ** | least Bell's vireo | *Vireo bellii pusillus* |
| Jays and Crows | | Corvidae |
| | California scrub-jay | *Aphelocoma californica* |
| | American crow | *Corvus brachyrhynchos* |

| | |
|---|---|
| common raven | *Corvus corax* |
| Bushtits | Aegithalidae |
| bushtit | *Psaltriparus minimus* |
| Wrens | Troglodytidae |
| Bewick's wren | *Thryomanes bewickii* |
| house wren | *Troglodytes aedon* |
| Kinglets | Regulidae |
| ruby-crowned kinglet | *Regulus calendula* |
| Bluebirds and Thrushes | Turdidae |
| Western bluebird | *Sialia mexicana* |
| Wrentits | Timaliidae |
| wrentit | *Chamaea fasciata* |
| Mockingbirds and Thrashers | Mimidae |
| Northern mockingbird | *Mimus polyglottos* |
| California thrasher | *Toxostoma redivivum* |
| Wood Warblers | Parulidae |
| orange-crowned warbler | *Oreothlypis celata* |
| yellow-rumped warbler | *Setophaga coronata* |
| common yellowthroat | *Geothlypis trichas* |
| Towhees and Sparrows | Emberizidae |
| spotted towhee | *Pipilo maculatus* |
| California towhee | *Melozone crissalis* |
| song sparrow | *Melospiza melodia* |
| white-crowned sparrow | *Zonotrichia leucophrys* |
| golden-crowned sparrow | *Zonotrichia atricapilla* |
| Blackbirds and Orioles | Icteridae |
| hooded oriole | *Icterus cucullatus* |
| Finches | Fringillidae |
| house finch | *Haemorhous mexicanus* |

| | |
|---|---|
| lesser goldfinch | *Spinus psaltria* |
| MAMMALS | MAMMALIA |
| Hares and Rabbits | Leporidae |
| desert cottontail | *Sylvilagus audubonii* |
| Squirrels | Sciuridae |
| California ground squirrel | *Ostospermophilus beecheyi* |
| Pocket Gophers | Geomyidae |
| Botta's pocket gopher (burrows) | *Thomomys bottae* |
| Dogs, Wolves and Foxes | Canidae |
| * domestic dog | *Canis familiaris* |
| coyote (scat, tracks) | *Canis latrans* |
| Raccoons | Procyonidae |
| common raccoon (tracks) | *Procyon lotor* |
| Skunks | Mephitidae |
| striped skunk | *Mephitis mephitis* |
| Horses | Equidea |
| * domestic horse | *Equus caballus* |
| Pigs | Suidae |
| * feral pig | *Sus scrofa* |

Special-status species are indicated by two asterisks. Other species may have been overlooked or inactive/absent because of the season (amphibians are more active during/after rains, reptiles during summer, some birds (and bats) migrate out of the area for summer or winter, some mammals hibernate etc.), or because of the time of the survey (some species are strictly nocturnal). Wildlife taxonomy and nomenclature generally follow Stebbins (2003) for amphibians and reptiles, AOU (1998) for birds, and Wilson and Ruff (1999) for mammals.

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| Skunks | | Mephitidae |
| | striped skunk | *Mephitis mephitis* |
| Horses | | Equidea |
| * | domestic horse | *Equus caballus* |
| Pigs | | Suidae |
| * | feral pig | *Sus scrofa* |

**United States Department of the Interior**
U.S. FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

In Reply Refer to:
FWS-LA-21B0133-21F1137

August 10, 2021
*Sent Electronically*

Eduardo T. De Mesa
Chief
Planning Division, Environmental Resources Branch
U.S. Army Corps of Engineers – Los Angeles District
915 Wilshire Blvd, Suite 930
Los Angeles, California 90017

Attention: Jenni Snibbe; Biologist, Regional Planning Section

Subject: Formal Section 7 Consultation for the San Gabriel River/San Jose Creek Confluence Sediment Removal Project, Cities of South El Monte and Industry, Los Angeles County, California

Dear Eduardo T. De Mesa:

This document was prepared in accordance with section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*), in response to the correspondence from the U.S. Army Corps of Engineers' (Corps) dated May 21, 2021, requesting formal consultation for the proposed San Gabriel River/San Jose Creek Confluence Sediment Removal Project located in the cities of South El Monte and Industry, Los Angeles County, California, and its effects on the federally endangered least Bell's vireo (*Vireo bellii pusillus*; vireo).

This biological opinion is based on information provided in: (1) the *Biological Assessment, San Gabriel River/San Jose Confluence Sediment Removal Project* (Corps 2021); (2) your request for consultation; and (3) other sources of information including survey reports, email correspondence, and other information compiled during discussions with the Corps on the subject project. The complete project file addressing this consultation is maintained at the Carlsbad Fish and Wildlife Office (CFWO).

Based on conservation measures committed to by the Corps (Appendix A), we concur with your determination that the proposed project is not likely to adversely affect the federally threatened coastal California gnatcatcher (*Polioptila californica californica*; gnatcatcher) and its designated critical habitat. Therefore, this species is not addressed in this biological opinion.

## CONSULTATION HISTORY

On December 18, 2020, the Corps contacted the Service to coordinate on the project's potential impacts to vireo. We met with the Corps on January 5, 2021, January 20, 2021, and February 2, 2021,

to discuss proposed work and potential measures to avoid, minimize, and offset impacts to vireo. On May 21, 2021, we received the Corps' request to initiate consultation. Between May 21, 2021, and July 16, 2021, we coordinated with the Corps on the project description and proposed conservation measures.

On July 28, 2021, we provided the Corps with a draft Biological Opinion. We received comments from the Corps on the draft Biological Opinion on August 4, 2021, which have been incorporated into this Biological Opinion.

## BIOLOGICAL OPINION

### DESCRIPTION OF THE PROPOSED ACTION

The project site is located in close proximity to the intersection of Interstate 605 and State Route 60 (SR-60), within and adjacent to the San Gabriel River and San Jose Creek on federal, city, and county land (Figure 1). The project includes removal of about 127,000 cubic yards of accumulated material and 11.2 acres of vegetation along at the confluence of the San Gabriel River and San Jose Creek (Figure 2) in order to re-establish the original design elevation of the channel invert and restore conveyance capacity. Sediment deposition has resulted in a higher entrance angle at the confluence than the original channel design. This condition has constricted flows in San Jose Creek and directed them at the northern levee embankment, resulting in the levee being scoured and undermined. Removing the accumulated sediment and vegetation will restore the original confluence entrance angle and reduce the scour and subsequent risk of levee failure.

Accumulated 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 SR-60. The depth of the sediment ranges from 3 to 10 feet. Water within the work area will be temporarily removed and pumped back into the channel. All dewatering structures will be removed prior to the rainy season or upon completion of construction. Vegetation will be cleared and hauled to a green waste facility. Sediment will likely be removed with excavators, sorted, and loaded into dump trucks to be hauled to designated disposal facilities. Other equipment will likely include water trucks, waste trucks, front-end loaders, dozers, skid-steers, and pickup trucks.

Two staging areas will be used at the southern ends of the project site within areas that are already disturbed or developed. Construction vehicles will access the project site from the adjacent Los Angeles (LA) County Sanitation District property using up to three temporary access ramps into the channel (Figure 2). Work is planned to occur during daytime hours.

The project will result in permanent impacts to 11.2 acres (9 acres of native riparian habitat and 2.2 acres of disturbed riparian habitat) from removal of vegetation in the sediment removal areas. The initial vegetation and sediment removal is scheduled to begin in Fall 2021 and will likely continue in stages through Fall 2024 during periods outside the bird nesting season (March 1 to September 15). Following the initial vegetation clearing and sediment removal, the Corps will continue to maintain the sediment removal area to prevent significant shoaling by removing up to 2,000 cubic yards of sediment per year. If vegetation re-establishes within the sediment removal

area between maintenance events, up to 0.1 acre of native riparian will be removed during annual maintenance.

The project also includes 20.2 acres of riparian habitat enhancement within the San Gabriel River channel where non-native species will be removed. Habitat enhancement will begin immediately following completion of the sediment removal and will occur outside the vireo breeding season. Maintenance of the 20.2-acre enhancement area will be incorporated into the Corps' regular and recurring Operations and Maintenance (O&M) work as long as sediment removal area maintenance continues, which is anticipated to be in perpetuity.

**Conservation Measures**

The Corps will implement the following conservation measures (CMs) as part of the project to avoid and minimize potential impacts to vireo:

CM 1. A CFWO-approved vireo biologist[1] will conduct surveys for vireos and their nests (i.e., at least three surveys at least 1 week apart) in suitable habitat throughout the action area. These surveys will be conducted for a period of 10 years beginning the year project-related construction activities are initiated. Vireo locations will be mapped by the Corps and provided to CFWO annually.

CM 2. The Corps will conduct vireo habitat enhancement by removing invasive plant species within 20.2 acres of the San Gabriel River. The 20.2-acre enhancement area will be maintained as part of the Corps' O&M area as long as sediment removal area maintenance continues. Prior to project impacts, the Corps will submit a draft enhancement plan to the CFWO for review and recommendation. The draft plan will include a figure showing the enhancement areas, non-native species control methods, a monitoring and maintenance strategy and schedule, and anticipated native riparian and non-native species cover over time. If enhancement areas do not show establishment of at least 60 percent native riparian species, and non-native cover of under 20 percent after 5 years, the Corps will propose alternative methods to increase native riparian cover within the enhancement areas or an alternative proposal to offset project impacts to the CFWO for review and approval. Annual reports will be submitted to the CFWO by October 31 of each year. Annual reports will include information on the enhancement/maintenance activities conducted over the course of each fiscal year, photograph documentation, a plant and wildlife species list, visual percent cover of native and non-native plant species within the monitoring transects, and any survey results for vireo within the action area.

CM 3. The Corps will implement homeless activity management within the habitat enhancement areas as long as maintenance of the sediment removal area continues.

[1] The vireo biologist will have documented experience of at least 20 hours of conducting surveys for vireos and locating vireo nests. If necessary, more than one biologist may be used.

The Corps will monitor and address homeless activities that may result in habitat degradation or disturbance to vireo in the action area.

CM 4. Vegetation and sediment removal and habitat enhancement activities will occur outside the vireo breeding season (March 15 to September 15). Project work may occur earlier than September 15th after the vireo biologist performs a minimum of three focused surveys, on separate days, to determine the presence of vireo nest building activities, egg incubation activities, or brood rearing activities on the project site. If surveys determine that all nesting is complete, the Corps will notify the CFWO of the survey results for approval prior to proceeding with project work during the breeding season.

CM 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 project 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 area 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.

CM 6. A Biological Monitor[2] will monitor construction activities at the initiation of construction and during weekly checks to ensure compliance with environmental commitments.

CM 7. Prior to construction activities, the Biological Monitor will conduct pre-construction environmental training for all construction crew members. The training will focus on required avoidance and minimization measures included as part of the project. The training will also include a summary of sensitive species and habitats potentially present within the project site.

CM 8. Prior to any ground-disturbing activities (e.g. mechanized clearing or rough grading) for all project related construction activities, the Biological Monitor will conduct pre-construction surveys of the project site for terrestrial special-status wildlife species and ensure construction boundaries are clearly marked.

CM 9. Best management practices will be implemented to reduce impacts to native habitats, including the following:

a. All equipment maintenance, staging, and dispending of fuel, oil, coolant, or any other toxic substances will occur in developed or designated non-sensitive upland areas. Best management practices will be implemented in these areas to prevent runoff carrying toxic substances from entering the San Gabriel

[2] The Biological Monitor will be familiar with the listed species and habitats that are addressed in this consultation. If necessary, more than one biologist may be used.

River or San Jose Creek and associated drainages. Spill containment materials will be maintained onsite during active construction periods. If a spill occurs outside of a designated non-sensitive 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 the 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 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.

**Action Area**

Regulations implementing the Act (50 CFR § 402.02) describe the action area as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. According to Title 50 Code of Federal Regulations (CFR § 402.02) pursuant to section 7 of the Act, the "action area" includes all areas to be affected directly or indirectly by the Federal action. Subsequent analyses of the environmental baseline, effects of the action, and levels of incidental take are based upon the action area. For this project, we have defined the action area as 131.4 acres of the San Gabriel River and San Jose Creek (Figure 1), which includes the 11.2-acre sediment removal area (Figure 2) and the 20.2-acre habitat enhancement area, which has not yet been identified, but will occur within the boundaries of the action area.

## ANALYTICAL FRAMEWORK FOR THE SECTION 7(A)(2) DETERMINATIONS

**Jeopardy Determination**

Section 7(a)(2) of the Act requires that Federal agencies ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of listed species. "Jeopardize the continued existence of" means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR § 402.02).

The jeopardy analysis in this biological opinion relies on four components: (1) the Status of the Species, which describes the range-wide condition of the species, the factors responsible for that condition, and its survival and recovery needs; (2) the Environmental Baseline, which analyzes the condition of the species in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the species; (3) the Effects of the Action, which are all consequences to listed species caused by the proposed action that are

reasonably certain to occur; and (4) the Cumulative Effects, which evaluate the effects of future, non-Federal activities in the action area on the species.

For the section 7(a)(2) determination regarding jeopardizing the continued existence of the species, the Service begins by evaluating the effects of the proposed Federal action and the cumulative effects. The Service then examines those effects against the current status of the species to determine if implementation of the proposed action is likely to reduce appreciably the likelihood of both the survival and recovery of the species in the wild.

## STATUS OF THE SPECIES

### Vireo

Vireos are sub-tropical migratory birds that are obligate riparian breeders, typically inhabiting structurally diverse woodlands along watercourses. Males establish and defend territories that range from 0.5 acre to 7.5 acres during the breeding season (Service 1998). Differences in territory size likely depend on riparian habitat structure, patch size, territorial neighbors, and numerous other factors. Males are relatively site-tenacious and generally return to the same breeding site each year, but have been observed to change breeding locations during their first few years of life (Service 1998).

The vireo population in the U.S. increased substantially from 291 territories at the time of listing in 1986 to 2,884 known territories in 2016 (Service 1998; Kus *et al.* 2017). Historically, the species occupied willow riparian habitats from Tehama County in northern California to northwestern Baja California; however, most of the current vireo breeding sites are located in southern California between the Tehachapi Mountains in Kern and Ventura counties south to northwestern Baja California, Mexico (Service 2006; Kus *et al.* 2017). Thus, despite a significant increase in overall population numbers since listing, the population remains restricted to about the southern half of its historic range. Critical habitat for the vireo was designated in 1994, but none occurs in the action area.

The overall positive population trend for vireo since its listing is primarily due to efforts to reduce threats such as brown-headed cowbird (*Molothrus ater*) parasitism and wholesale loss and degradation of riparian habitats. The control of giant reed (*Arundo donax*) has been effective at improving vireo habitat in many drainages since the original listing of the vireo. Continued control will be needed to achieve local giant reed eradications and to address invasions by other exotic plants [e.g., *Tamarix* species, perennial pepperweed (*Lepidium latifolium*)] that continue to degrade riparian habitats for the species. Brown-headed cowbirds substantially expanded into the historic and current range of the vireo about 100 years ago, and brood parasitism by brown-headed cowbirds remains a primary threat to vireo recovery (Service 1998).

The Service reviewed the status of the species in 2006 and recommended the vireo be downlisted from endangered to threatened based on its improved status (Service 2006); however, a new threat has since emerged that has the potential to significantly impact vireo nesting throughout its range. A disease complex involving two species of ambrosia beetles: the polyphagous shot hole borer (*Euwallacea* sp. 1) and Kuroshio shot hole borer (*Euwallacea* sp. 5), a mix of associated fungi

(Lynch *et al*. 2016), and other pathogens is causing widespread damage to trees in riparian ecosystems throughout southern California (Eskalen *et al*. 2013). It is too early to determine how this significant new threat will affect the overall status of the species. Significant mortality of mature trees related to this threat may alter vireo prey availability, increase exposure to predation (especially for vireo nests), and affect hydrogeomorphic processes (e.g., flooding, alluvial deposition) important for maintaining healthy riparian woodlands that vireos use for feeding, sheltering, and breeding.

***Los Angeles County***

As a direct or indirect result of urbanization, all of the drainages in the Los Angeles Basin have been manipulated to varying degrees. The following activities continue to threaten vireo habitat in Los Angeles County: (1) removal of riparian vegetation; (2) invasion of exotic or predatory species (e.g., giant reed, cowbirds); (3) thinning of riparian growth, especially near ground level; (4) removal or destruction of adjacent upland habitats used for foraging; (5) increases in human-associated or human-induced disturbances; and (6) flood control activities, including dams, channelization, water impoundment or extraction, and water diversion. Habitat destruction and brood-parasitism by the cowbird are considered to be the primary threats to the survival and recovery of this species. Recovery efforts are focused on addressing these two issues (Service 1998).

Prior to the listing of the vireo as endangered in 1986, the species was nearly extirpated from Los Angeles County. Surveys of 12 historic breeding areas in Los Angeles County revealed only three territorial males in 1978 (Goldwasser 1978). In 1986, at a time when the range-wide population of vireo's was estimated at 300 pairs, surveys of five breeding areas in Los Angeles County revealed one pair and two territorial males (RECON 1990). The remaining riparian habitat in Los Angeles County has been selectively and gradually reoccupied by vireos, following sustained and relatively intensive management of the species within its current range.

As populations continue to recover and vireos disperse northward, it is anticipated that they will reestablish in the central and northern portions of their historical breeding range. As such, the remaining habitat patches in Los Angeles County are important "stepping stones" to the continuing expansion and full recovery of the species.

***Recovery***

The draft recovery plan for the vireo identifies 14 metapopulations to be conserved in order to recover the species (Service 1998). Vireos in the action area are considered part of the Orange County/Los Angeles County metapopulation, which is considered an important stepping stone between more abundant metapopulations to the south and the northern extent of the species range. The primary goals of the draft recovery plan are to: (1) maintain stable or increasing vireo metapopulations, each consisting of several hundred or more breeding pairs, (2) protect and manage riparian and adjacent upland habitats within the historic range of the vireo, (3) control non-native plant species, (4) control cowbird parasitism, and (5) conduct habitat restoration.

For more detailed information on vireo biology, ecology, status, threats, and conservation needs, please refer to the draft recovery plan for the vireo[3] (Service 1998) and 5-year review for the vireo[4] (Service 2006).

## ENVIRONMENTAL BASELINE

The regulations implementing the Act (50 CFR § 402.02) define the environmental baseline as the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify are part of the environmental baseline (50 CFR § 402.02).

### Project Site Characteristics and Surrounding Land Uses

The stretch of the San Gabriel River that supports the project site is channelized for flood control purposes and is stabilized by concrete and grouted stone within earthen levees. Sediment accumulates in the river as it washes down from upstream areas and as the surrounding earthen levees erode. There are homeless encampments throughout the action area, which likely degrade habitat quality by reducing native vegetation cover and increasing fire risk, noise, lighting, and disturbance to wildlife. Downstream of the project site, the San Gabriel River flows into the Whittier Narrows Reservoir above the Whittier Narrows Dam, which supports additional native and non-native habitat. Land uses within the Reservoir include water conservation, flood risk management, recreation, agriculture, education, infrastructure, and wildlife habitat.

The project site supports both native and non-native vegetation (Figure 1). Native habitat types include black willow (*Salix nigra*) , arroyo willow (*Salix lasiolepis*), sandbar willow (*Salix exigua*), and mulefat (*Baccharis salisifolia*), smartweed (*Persicaria amphibia*), cocklebur (*Xanthium strumarium*), and cattail (*Typha* sp.). Disturbed areas are dominated by giant reed, eucalyptus trees (*Eucalyptus* sp.), annual brome grass (*Bromus* sp.), bare ground, or disturbed/developed trails and clearings (Corps 2021).

Much of the riparian habitat within the action area has established and persisted as a result of perennial water availability due to urban runoff, water impoundment structures, and wastewater discharge. Over the last decade, the state of California has enacted several laws, policies, and executive orders to promote the development of recycled water programs. In 2016, we completed section 7 consultation (FWS-SDG-13B0291-16I0127) with the State Water Resources Control Board and the Environmental Protection Agency on the Groundwater Reliability Improvement Program Recycled Water Project (GRIP), which includes construction of an advanced water

[3] http://ecos.fws.gov/docs/recovery_plan/980506.pdf
[4] http://ecos.fws.gov/docs/five_year_review/doc781.pdf

treatment facility (AWTF) to treat and reuse recycled water. Operation of the AWTF is expected to reduce the amount of imported water discharged into the San Gabriel River and its tributaries in the vicinity of the action area. Our section 7 consultation estimates that GRIP implementation would reduce the water available to support riparian habitat within the San Gabriel River and Whittier Narrows Natural Area by about 15 percent, which may lead to vireo habitat degradation within and surrounding the action area.

In 2019, the Los Angeles County Sanitation Districts completed a Final Environmental Impact Report (EIR) for the San Gabriel River Watershed Project to Reduce River Discharge in Support of Increased Recycled Water Reuse (ESA 2019). This project includes reduction of wastewater discharge from the San Jose Creek Water Reclamation Plant (WRP) into San Jose Creek within the action area from an average of 9.52 million gallons per day (MGD) to 5 MGD. About 17 miles upstream of the action area, the Pomona WRP is anticipated to reduce wastewater discharge to San Jose Creek from 3.27 MGD to 0 MGD. These changes in discharge from both WRPs will represent a decrease of wastewater discharge into the action area by about 60 percent. Monitoring transects have been established within the San Gabriel River to monitor any changes to riparian vegetation structure and species composition over time. Vegetation monitoring began in 2018, and decreased wastewater discharge began in December 2020. Potential effects of decreased wastewater discharge will be evaluated as vegetation monitoring and project implementation continue, but there is the potential for vireo habitat within the action area to be negatively affected by decreased wastewater discharge.

**Status of Vireo within the Action Area**

Suitable vireo habitat occurs in patches throughout the action area within the San Gabriel River and San Jose Creek. The 131.4-acre action area currently supports about 67.9 acres of riparian and 20.7 acres of disturbed riparian (88.6 acres total). The sediment removal area supports 11.2 acres of vegetation, including 9 acres of riparian and 2.2 acres of disturbed riparian. Focused surveys in 2019 detected one pair of vireo within the sediment removal area (Figure 3; Corps 2021). A second male was detected in the sediment removal area, but was not confirmed as paired. Up to seven additional vireo territories were detected in the action area outside the sediment removal area (Figure 3); however, two of these detections may have been transient vireos disbursing to or from adjacent habitat as they were not detected on two or more consecutive surveys after the initial detection.

## EFFECTS OF THE ACTION

Regulations implementing the Act (50 CFR § 402.02) define the effects of the action as all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action (50 CFR § 402.17).

The regulations for section 7(a)(2) note that "a conclusion of reasonably certain to occur must be based on clear and substantial information, using the best scientific and commercial data available" [50 CFR § 402.17(a)]. When considering whether activities caused by the proposed action (but not part of the proposed action) or activities reviewed under cumulative effects are reasonably certain to occur, we consider factors such as (1) past experiences with activities that have resulted from actions that are similar in scope, nature, and magnitude to the proposed action; (2) existing plans for the activity; and (3) any remaining economic, administrative, and legal requirements necessary for the activity to go forward.

**Vireo**

***Construction-Related Death, Injury, and Disturbance***

Clearing of vireo habitat, sediment removal, and habitat enhancement activities will be conducted outside the breeding season when vireos are not present (CM 4). Therefore, project activities are not anticipated to kill, injure, or destroy vireos or their nests. In addition, because vireos will not be present during project activities, we do not anticipate any disturbance to vireos related to vegetation clearing, sediment removal, or habitat enhancement.

***Habitat Loss Associated with Project Implementation***

The project will remove all vegetation (9 acres riparian and 2.2 acres disturbed riparian) within the sediment removal area, which supports up to two vireo territories. Because much of the surrounding suitable vireo habitat is already occupied by up to seven vireo pairs, vireos within the impact area will likely be forced to seek other habitat further away or significantly adjust their territories, which may lead to increased territorial interactions and decreased fitness until new territories are established. Any individuals subject to territorial shifts or displacement may experience an increase in energy expenditure, a decrease in productivity, and a greater chance of predation. If the displaced birds do not find suitable unoccupied replacement habitat, they may starve or otherwise die from predation or lack of shelter. Therefore, we anticipate that up to two vireo pairs will be displaced and experience increased mortality and/or loss of reproduction due to loss of breeding, feeding, and sheltering habitat within the sediment removal area.

The Corps will continue to maintain the sediment removal area following the initial removal event by removing up to 2,000 cubic yards of sediment each year. Annual maintenance of the sediment removal area will likely preclude significant shoaling that would allow suitable vireo habitat to establish again; however, up to 0.1 acre of native riparian habitat may be removed each year. Up to 0.1 acre of native riparian habitat is likely not sufficient to support a vireo territory. Therefore, potential impacts to vireo survival and reproduction as a result of annual sediment maintenance activities are anticipated to be insignificant (i.e., unable to be effectively measured, detected, or evaluated).

***Habitat Enhancement***

Habitat enhancement within 20.2 acres of the action area will occur within disturbed riparian habitat and other areas where non-native species are dominant. Only areas dominated by non-native

vegetation, which are not likely to support vireo breeding, will be selected for enhancement. Removal of non-native vegetation could temporarily reduce vegetation density within vireo territories, potentially exposing vireo to increased risk of nest parasitism and predation. However, after removal of 11.2 acres of vegetation from the sediment removal area, the action area will still support about 58.9 acres of riparian, 18.5 acres of disturbed riparian, and 41.6 acres of non-native vegetation, and non-native species removal will be dispersed throughout the action area. Further, the Corps will remove homeless encampments from the action area, which will reduce habitat fragmentation and disturbance at the same time that initial non-native vegetation removal efforts are being conducted. Considering the dispersed nature of the habitat enhancement, the simultaneous removal of an ongoing source of disturbance and fragmentation (homeless encampments), and the long term benefits of habitat enhancement, we anticipate that any short-term negative effects of these activities on vireo survival and reproduction will be insignificant.

The Corps will maintain the habitat enhancement areas as part of their O&M program to ensure low cover of non-native species and maintenance of suitable vireo habitat as long as the sediment removal area is maintained, which is anticipated to be in perpetuity (CM 2). If enhancement areas do not support at least 60 percent native riparian cover and less than 20 percent non-native cover after 5 years, the Corps will propose alternative methods to increase native riparian cover within the enhancement areas or an alternative proposal to offset project impacts to the CFWO for review and approval. The Corps will also implement homeless activity management within the habitat enhancement areas to monitor and address activities that may result in habitat degradation or disturbance to vireos in the action area (CM 3). We anticipate that enhancement, management, and maintenance of the habitat enhancement areas will result in increased vireo breeding habitat over time (i.e., about 5 years) and will likely support additional vireo pairs once native vegetation has established. Therefore, habitat enhancement is anticipated to provide a net benefit to the vireos within the San Gabriel River by providing higher quality habitat for breeding, feeding, and sheltering.

***Summary***

In summary, the project will result in removal of 11.2 acres of vegetation (9 acres riparian and 2.2 acres disturbed riparian) that supports up to two vireo territories with the sediment removal area. Therefore, we anticipate that two vireo pairs will be displaced and experience increased mortality and/or loss of reproduction due to loss of breeding, feeding, and sheltering habitat within the sediment removal area. Habitat enhancement may result in a temporary reduction of 20.2 acres of vireo foraging habitat within and adjacent to up to seven vireo territories. We do not anticipate that this temporary reduction in foraging habitat will result in displacement of any vireos due to the amount of remaining habitat available for foraging within the action area. In addition, enhancement activities are anticipated to increase suitable vireo breeding habitat within the action area over time, which will likely result in an increase in the number of vireo pairs within the San Gabriel River. The Corps' maintenance and management of the habitat enhancement areas will ensure that the action area maintains higher quality breeding, feeding, and sheltering habitat for vireo for as long as the sediment removal area is maintained, which is anticipated to be in perpetuity.

***Effect on Recovery***

Vireos in the action area are considered part of the Orange County/Los Angeles County metapopulation in the draft recovery plan for the vireo. Habitat within the action area functions as a stepping stone between more abundant metapopulations to the south and the northern extent of the species range (Service 1998). Although the project will temporarily reduce the number of vireos and amount of habitat within the metapopulation, conservation measures incorporated into the project are consistent with the recovery actions and goals described in the draft recovery plan. Specifically, the vireo habitat enhancement and maintenance will help accomplish recovery tasks 2, 3, and 5, which are to protect and manage riparian within the vireo's historic range, control non-native plants, and conduct habitat restoration. Though up to two vireo pairs may be displaced as a result of vegetation and sediment removal, habitat enhancement, maintenance, and management of 20.2 acres will provide additional high quality breeding, feeding, and sheltering habitat for the vireo within the action area. Therefore, we anticipate that the number of vireos within the action area will remain the same or increase following establishment of suitable habitat within the habitat enhancement areas (i.e., about 5 years), which will ensure the continued function of the action area as a stepping stone between metapopulations to the south and the northern extent of the species range. Since the number of vireos within the action area will remain the same or increase, project implementation is not expected to result in an appreciable reduction in the numbers, reproduction, or distribution of vireos in the San Gabriel River.

**Cumulative Effects**

Cumulative effects are effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 CFR § 402.02). Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. We have not identified any State or private activities within the action area that should be considered in this biological opinion.

**CONCLUSION**

After reviewing the current status of the vireo, the environmental baseline for the action area, the effects of the proposed action and cumulative effects, it is the Service's biological opinion that the action, as proposed, is not likely to jeopardize the continued existence of the vireo.

The Service reached this conclusion for the following reasons:

1. Implementation of the project is not expected to result in an appreciable reduction in the numbers, reproduction, or distribution of vireos in the San Gabriel River over the long term and is consistent with the recovery of the species.

2. To minimize impacts to vireos, vegetation clearing, sediment removal, and habitat enhancement will avoid the vireo breeding season.

3. The project will offset impacts to about 11.2 acres (9 acres riparian and 2.2 acres

disturbed riparian) of vireo habitat by conducting habitat enhancement, maintenance, and management within 20.2 acres of the San Gabriel River; which is anticipated to increase high quality breeding, feeding, and sheltering habitat for the vireo within the action area.

## INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. The Service further defines "harm" to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not the purpose of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the proposed protective measures and the terms and conditions of an incidental take statement and occurs as a result of the action as proposed.

The measures described below are non-discretionary, and must be undertaken by the Corps and/or Applicant for the exemption in section 7(o)(2) to apply. The Corps has a continuing duty to regulate the activity covered by this incidental take statement. If the Corps fails to assume and implement the terms and conditions, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, the Corps must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement [50 CFR § 402.14(i)(3)].

### AMOUNT OR EXTENT OF TAKE

The regulations for section 7(a)(2) clarify that the Service may use surrogates to express the amount or extent of anticipated take when "exact numerical limits on the amount of anticipated incidental take may be difficult" (80 FR 26832). The implementing regulations [50 CFR § 402.14(i)(1)(i)] require that the Service meet three conditions for the use of a surrogate. To use a surrogate, the Service must:

1. Describe the causal link between the surrogate and take of the listed species.

2. Describe why it is not practical to express the amount of anticipated take or to monitor take-related impacts in terms of individuals of the listed species.

3. Set a clear standard to determine when the proposed action has exceeded the anticipated amount or extent of the taking.

In the incidental take statement, we use riparian habitat as a surrogate for vireo individuals or pairs. Vireos are dependent on riparian habitat for breeding, feeding, and sheltering and are known to be territorial and site tenacious. Therefore, if riparian habitat is removed within known vireo

territories (based on focused surveys), it may result in harm to individuals that occupy that habitat. As described in the Effects of the Action section, two vireo territories were detected during focused surveys within the sediment removal area. All of the riparian habitat in the sediment removal area will be removed by the project. Therefore, we anticipate that up to two vireo pairs will be displaced and experience increased mortality and/or loss of reproduction due to loss of breeding, feeding, and sheltering habitat as a result of project impacts. Vegetation within the sediment removal area is anticipated to be removed in the Fall of 2021 (outside the vireo breeding season) before updated vireo surveys can be conducted. Because of the project timing, it will not be possible to determine the number of vireo pairs currently using the vegetation in the project footprint prior to project implementation or to directly monitor changes in survival and reproduction to individual vireos following vegetation removal. Therefore, the amount or extent of habitat impacts will be used as a surrogate to monitor effects of these activities on the vireo.

Take of vireos is exempted as follows:

IT 1. Take in the form of harm of up to two vireo pairs resulting from impacts to up to 11.2 acres of riparian habitat (9 acres riparian and 2.2 acres disturbed riparian) that support vireo nesting, foraging, and dispersal within the project's sediment removal area. The amount or extent of incidental take will be exceeded if more than the specified amount of habitat is impacted.

**Effect of the Take**

In the accompanying biological opinion, we determined that this level of take is not likely to result in jeopardy to the vireo.

**REASONABLE AND PRUDENT MEASURES**

The Corps is implementing conservation measures to avoid and minimize the incidental take of vireo during implementation of the projects. In addition to these CMs, the following reasonable and prudent measure (RPM) is necessary to monitor and report the incidental take of vireo:

RPM 1. The Corps will keep the CFWO informed on the progress of project construction and will monitor and report on consistency with the exempted amount or extent of take of vireo associated with the proposed action.

**TERMS AND CONDITIONS**

To be exempt from the prohibitions of section 9 of the Act, the Corps must comply with the following terms and conditions (TC), which implement the reasonable and prudent measure described above. These terms and conditions are non-discretionary.

TC 1.1 If the level of take exempted in this biological opinion is exceeded during project construction, the Corps will immediately contact CFWO.

TC 1.2 In addition to submitting annual reports on habitat enhancement activities (CM 2), the Corps will coordinate with the Service every 5 years of project implementation. The Corps and the Service will evaluate whether habitat enhancement, maintenance, and management within the 20.2-acre enhancement area is meeting the goals of maintaining suitable vireo habitat (i.e., at least 60 percent native cover) with low non-native cover (i.e., less than 20 percent). If these goals are not being met, the Corps will coordinate with the Service to determine if alternative methods can be applied to achieve greater benefits to the vireo or if reinitiation of consultation is necessary.

TC 1.3 Prior to project construction, the Corps will submit to the CFWO Geographic Information System (GIS) shapefiles in UTM, Zone 11N (meters), NAD 83 coordinate system that show the anticipated project impacts, enhancement areas, and existing vegetation communities within enhancement areas. Include the following metadata for the shapefile: summary/description of the data, attribute definitions, coordinate system/projection information or any other pertinent information.

## CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans or to develop information. We have not identified any additional conservation measures, other than those already committed to by the Corps, to further avoid and minimize potential effects to the vireo.

## REINITIATION NOTICE

Reinitiation of consultation is required and will be requested by the Corps or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and:

1. If the amount or extent of taking specified in the incidental take statement is exceeded;

2. If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;

3. If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this biological opinion; or

4. If a new species is listed or critical habitat designated that may be affected by the identified action.

If you have any questions regarding this biological opinion, please contact Lauren Kershek[5] of this office at 760-431-9440, extension 208.

Sincerely,

Scott A. Sobiech
Field Supervisor

[5] Lauren_Kershek@fws.gov

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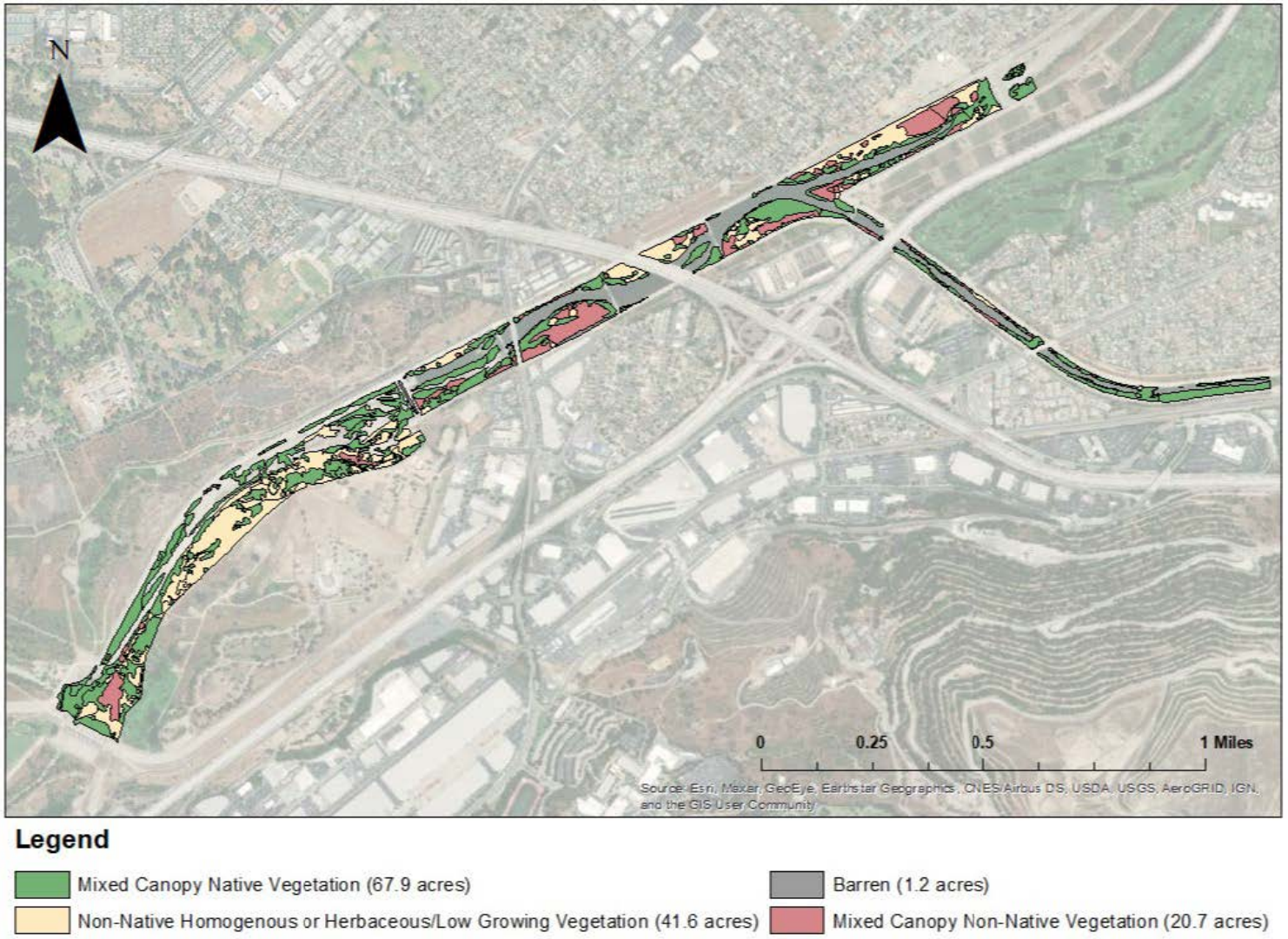


**Figure 1.** Action area within San Gabriel River and San Jose Creek and vegetation communities (Corps 2021).

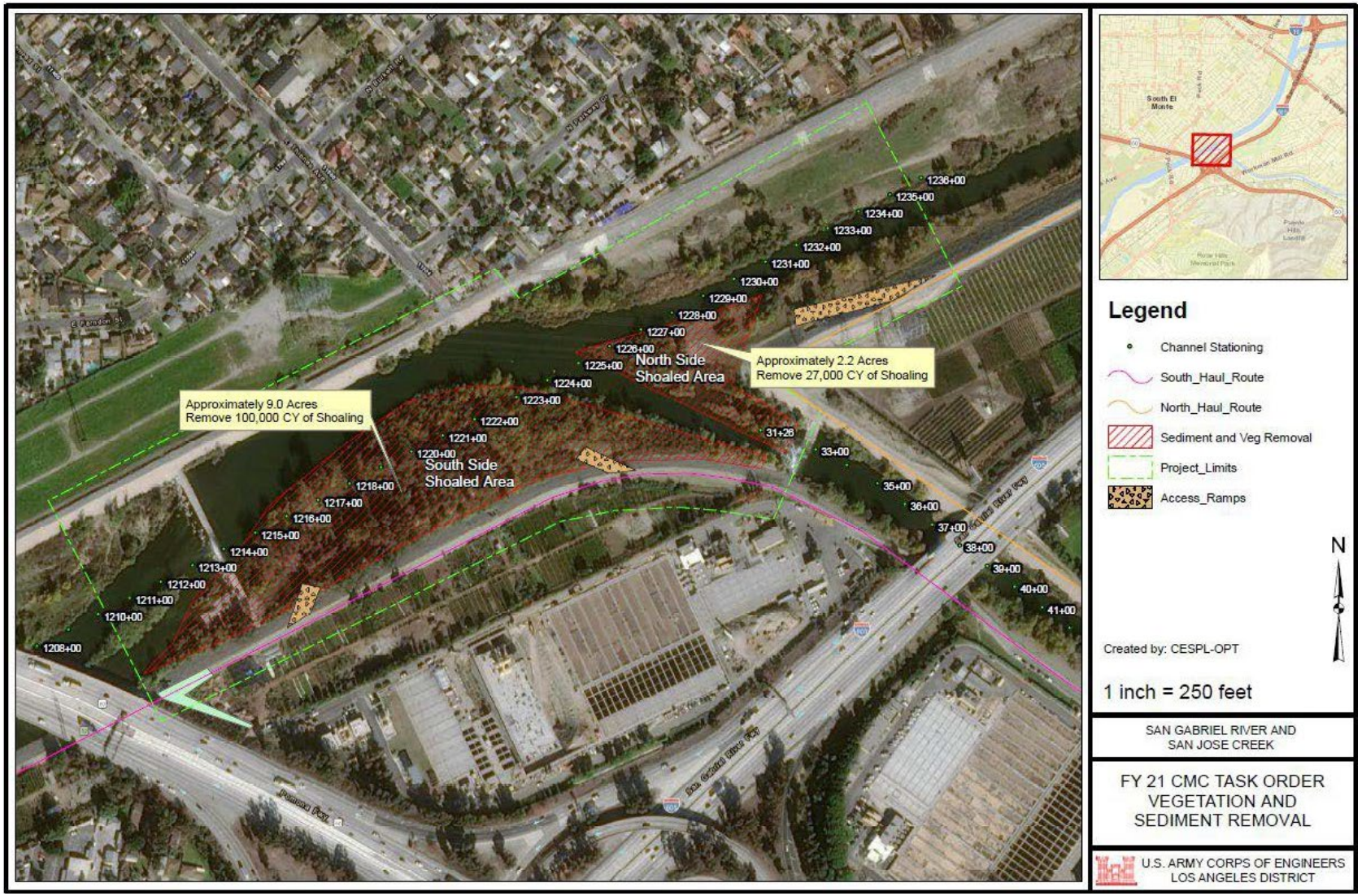


**Figure 2.** Sediment and vegetation removal area at confluence of San Jose Creek and San Gabriel River (Corps 2021).

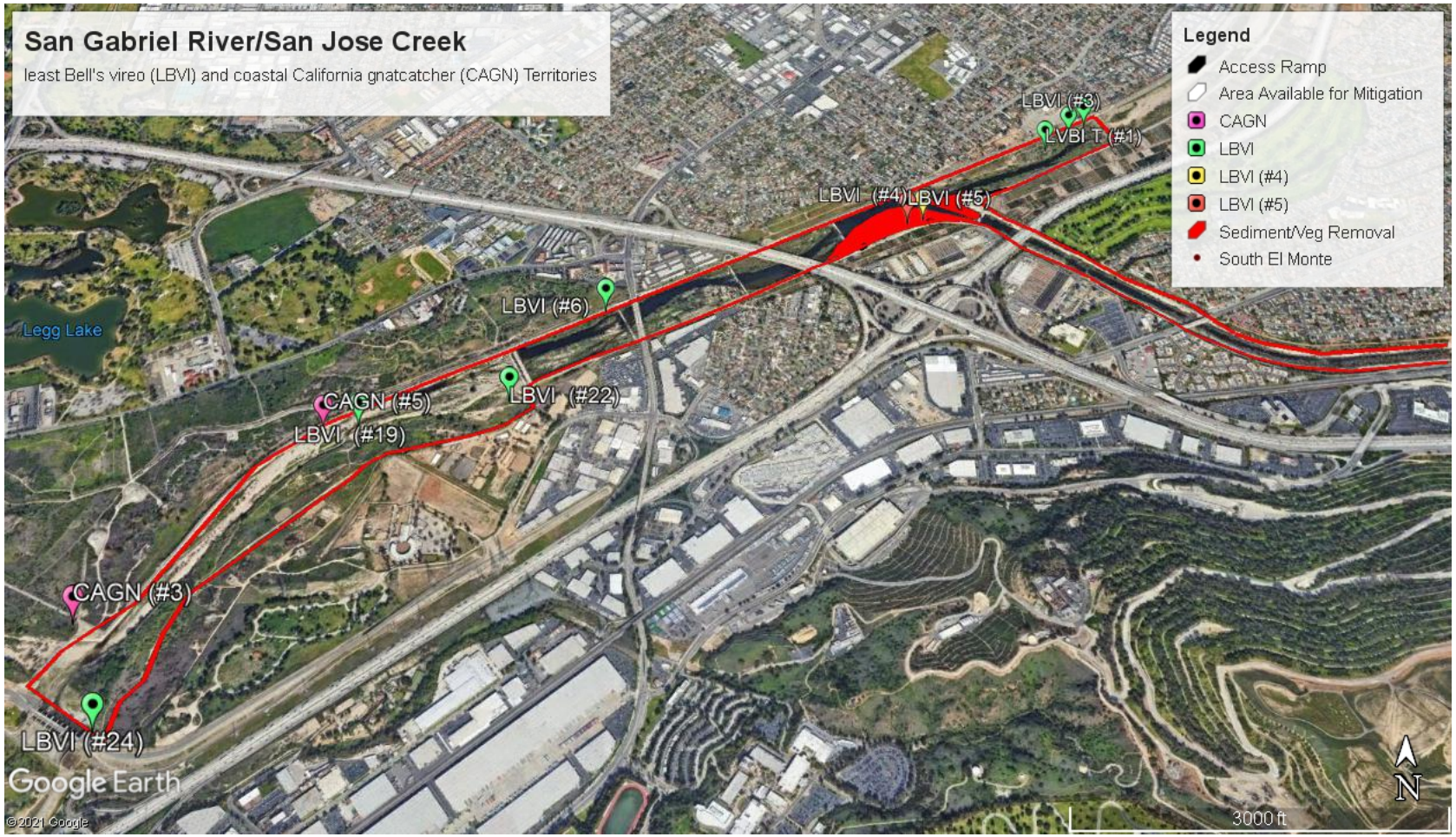


**Figure 3.** Vireo and gnatcatcher detections within and adjacent to the action area during 2019 surveys (Corps 2021).

# APPENDIX A

## Section 7 Consultation for the San Gabriel River/San Jose Creek Confluence Sediment Removal Project, the Cities of South El Monte and Industry, Los Angeles County, California

## INFORMAL CONSULTATION

The following information supports the Service's concurrence with the Corps' not likely to adversely affect determination for the federally threatened coastal California gnatcatcher (*Polioptila californica californica*; gnatcatcher) and its designated critical habitat, in accordance with section 7 of the Endangered Species Act, as amended (16 U.S.C. 1531 *et seq.*), for the San Gabriel River/San Jose Creek Confluence Sediment Removal Project.

### Conservation Measures

The Corps has agreed to implement the following conservation measures to avoid and minimize impacts to a level of insignificance for the gnatcatcher:[6]

CM 10. Vegetation clearing for sediment removal and habitat enhancement work will occur outside the gnatcatcher breeding season (February 15 to September 15).

CM 11. A CFWO-approved gnatcatcher biologist[7] will conduct surveys for gnatcatchers and their nests (i.e., at least three surveys at least 1 week apart) in suitable habitat throughout the action area. These surveys will be conducted for a period of 10 years beginning the year project-related construction activities are initiated. Gnatcatcher locations will be mapped by the Corps and provided to CFWO annually.

### Analysis of Effects

#### *Gnatcatcher*

The San Gabriel River in the action area supports riparian, disturbed riparian, and non-native vegetation. Two gnatcatcher territories were detected north of the action area (Figure 3), and juvenile gnatcatchers were detected dispersing through the western portion of the action area during focused surveys in 2019 (Corps 2021). Because the action area does not support suitable gnatcatcher breeding habitat, it is likely only used by gnatcatchers for foraging and dispersal. Gnatcatcher foraging and dispersal habitat may be temporarily reduced as a result of non-native vegetation removal in the habitat enhancement areas. However, native riparian habitat is anticipated to establish within the habitat enhancement areas over time (i.e., about 5 years), which will provide higher quality foraging and dispersing habitat. The Corps will manage the enhancement areas as part of their ongoing O&M program, including continued control of non-native species and management of homeless encampments. In addition, the Corps will clear

[6] To avoid duplicate numbering, the numbering of conservation measures in this appendix continues from those included in the body of the document.

[7] The gnatcatcher biologist will have documented experience of at least 20 hours of conducting surveys for gnatcatchers and locating gnatcatcher nests. If necessary, more than one biologist may be used.

vegetation outside the gnatcatcher breeding season (CM 10) and conduct annual gnatcatcher surveys within the action area while the initial sediment removal work is ongoing (CM 11) to ensure that gnatcatcher breeding territories are not impacted by project implementation. Therefore, potential impacts to gnatcatcher survival and reproduction as a result of project implementation are anticipated to be insignificant (i.e., unable to be effectively measured, detected, or evaluated).

***Gnatcatcher Critical Habitat***

The action area supports about 86.8 acres of designated critical habitat for the gnatcatcher. The sediment removal area is not within critical habitat. However, critical habitat may overlap with portions of the project's 20.2-acre habitat enhancement area, which has not yet been identified.

The physical and biological features (PBFs)[8] of designated critical habitat for the gnatcatcher are those habitat components that are essential to support the primary biological needs of foraging, nesting, rearing of young, intra-specific communication, roosting, dispersal, genetic exchange, or sheltering. These include: (1) dynamic and successional coastal sage scrub habitats that provide space for individual and population growth, normal behavior, breeding, reproduction, nesting, dispersal, and foraging; and (2) non-sage scrub habitats such as chaparral, grassland (a component of ruderal vegetation), and riparian areas, in proximity to sage scrub habitats that provide space for dispersal, foraging, and nesting.

Habitat enhancement areas that overlap with gnatcatcher critical habitat support disturbed riparian and non-native vegetation (PBF 2). As summarized above, we anticipate that native riparian will establish within the enhancement areas over time. Therefore, temporary impacts to critical habitat within habitat enhancement areas (up to 20.2 acres), are expected to result in a net increase in habitat quality that will continue to support the physical and biological features of critical habitat.

**Conclusion**

With incorporation of these conservation measures, in addition to the conservation measures included in the project's associated biological opinion, potential impacts to gnatcatcher survival and reproduction and potential impacts to the functioning of designated critical habitat will be minimized to the point where such effects are insignificant. For the purposes of section 7 consultation, an insignificant effect is one that is sufficiently small that a person would not be able to meaningfully measure, detect, or evaluate it. Based on the site and species information and the Corps' commitment to implement avoidance and minimization measures during the project, we concur with the Corps' determination that the project is not likely to adversely affect the gnatcatcher and its critical habitat.

[8] The designation of critical habitat for gnatcatcher uses the term primary constituent element. The new critical habitat regulations (81 FR 7214) replace this term with PBFs. This shift in terminology does not change the approach used in conducting our analysis. In this consultation, we use the term PBFs to mean primary constituent elements.

# Appendix B. Section 106 SHPO letter of concurrence

State of California • Natural Resources Agency
Gavin Newsom, *Governor*

**DEPARTMENT OF PARKS AND RECREATION**
**OFFICE OF HISTORIC PRESERVATION**
Armando Quintero, *Director*

**Julianne Polanco, State Historic Preservation Officer**
**1725 23rd Street, Suite 100, Sacramento, CA 95816-7100**
**Telephone: (916) 445-7000 FAX: (916) 445-7053**
**calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov**

June 10, 2021 In reply refer to: COE_2021_0514_001

VIA ELECTRONIC MAIL

Eduardo T. DeMesa
Chief
Planning Division
U.S. Army Corps of Engineers, Los Angeles District
915 Wilshire Blvd., Suite 930
Los Angeles, CA 90017-3489

RE: Section 106 consultation for the Removal of Sediment & Invasive Plants, San Jose Creek and San Gabriel River, Los Angeles County

Dear Eduardo DeMesa

The U.S. Army Corps of Engineers (COE) is initiating consultation with the State Historic Preservation Officer (SHPO) to comply with Section 106 of the National Historic Preservation Act of 1966 (as amended) and its implementing regulation at 36 CFR § 800. By letter received on May 14, 2021, the COE is seeking comments on their finding of effect for the above-referenced undertaking. The COE submitted the following documents to support their finding of effect:

- *San Gabriel River/San Jose Creek Sediment Removal map* (no author, no date)
- *FY21 CMC Task Order Vegetation and Sediment Removal figure* (USACE, no date)
- *SCCIC record search results summary table* (no author, no date)

The COE is proposing to issue a permit supporting sediment and vegetation removal near the junction of San Joaquin Creek and the San Gabriel River in the cities of South El Monte and Industry, and in Avocado Heights, an unincorporated area of Los Angeles County. Project activities include the excavation of accumulated sediment from the San Gabriel River to the level of the channel's original design elevation, the possible creation of temporary access ramps from imported fill, removal and cleanup of homeless encampments on the sediment removal areas, the removal of invasive species vegetation using hand tools periodically over the next 10 years. The APE is defined as 222.7 acres including the areas proposed for sediment and vegetation removal, mitigation areas, staging, the levee crown used as a haul road, and areas of possible temporary access

ramps. The vertical APE is described as three to ten feet below ground surface for the excavation of accumulated sediment. Efforts to identify historic properties include an internal agency records search, review of pedestrian survey and record searches from 2017 and 2019, archival and online research, and Native American outreach.

The COE contacted the Gabrieleno Tongva San Gabriel Band of Mission Indians (San Gabriel) as the Tribe with known cultural ties to the project area. The San Gabriel stated no concerns for this project as no to very little native soils are expected to be disturbed. COE also contacted the Fernandeño Tataviam Band of Mission Indians and the Gabrielino Band of Mission Indians-Kizh Nation receiving no responses.

- If the COE receives comments from consulted parties resulting in adjustments to the COE's determinations or findings, inform the SHPO and continue consultation.

Efforts to identify historic properties resulted in one possible historic property in the APE. The San Gabriel River 2b (SGR2b) levee segment is an element of the 31.2-mile-long San Gabriel River Flood Control System, constructed by the COE and the Los Angeles County Flood Control District between 1947 and 1971. The SGR2b levee left bank was constructed between 1952 and 1953, and the right bank constructed between 1970 and 1971.

The COE is proposing to treat the San Gabriel River Flood Control System (SGRFCS) as eligible for the National Register under Criterion A with the SGR2b levee as a contributing element for the purposes of this project only, as a full evaluation is beyond the scope of this project. **I do not object to this approach for the purposes of this undertaking only.**

The COE has concluded that as the proposed project activities in the proximity to the SGR2b levee will restore the levee segment to its original design elevation, and not physically impact the resource, issuing a permit would have no adverse effect on historic properties. After reviewing the letter and supporting documentation, **I do not object** to a finding of *no adverse effect to historic properties* for this undertaking pursuant to 36 CFR § 800.5(c)(1).

Be advised that under certain circumstances, such as unanticipated discovery or a change in project description, the COE may have additional future responsibilities for this undertaking under 36 CFR § 800. If you require further information, please contact Elizabeth Hodges of my staff at (916) 445-7017 or Elizabeth.Hodges@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

# Appendix C. Clean Water Act Section 404(b)(1) Evaluation

US ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

# SAN GABRIEL RIVER AND SAN JOSE CREEK CONFLUENCE:

# SEDIMENT AND VEGETATION REMOVAL

# COUNTY OF LOS ANGELES, CALIFORNIA

## CLEAN WATER ACT SECTION 404(B)(1) EVALUATION

**August 2021**

# 1 INTRODUCTION

Section 404 of the Clean Water Act (CWA) governs the discharge of dredged or fill material into Waters of the U.S. Although the Corps does not process and issue permits for its own activities, the Corps authorizes its own discharges of dredged or fill material by applying all applicable substantive legal requirements, including application of the Section 404(b)(1) Guidelines, 33 Code of Federal Regulations (C.F.R.) 336.1(a). The following evaluation is intended to succinctly state and evaluate information regarding the effects of discharges of dredged or fill material into the waters of the U.S. As such, it is not meant to stand alone and relies heavily upon information provided in the environmental document to which it is attached.

Under the Section 404(b)(1) Guidelines, an analysis of practicable alternatives is the primary tool used to determine whether a proposed discharge is prohibited. The Section 404(b)(1) Guidelines prohibit discharges of dredged or fill material into Waters of the U.S. if a practicable alternative to the proposed discharge exists that would have less adverse impacts on the aquatic ecosystem, including wetlands, as long as the alternative does not have other significant adverse environmental impacts (40 C.F.R. 230.10(a)). An alternative is considered practicable if it is available and capable of being implemented after considering cost, existing technology, and logistics in light of overall project purpose (40 C.F.R. 230.10(a)(2)). The Section 404(b)(1) Guidelines follow a sequential approach to project planning that considers mitigation measures only after the project proponent shows no practicable alternatives are available to achieve the overall project purpose with less environmental impacts. Once it is determined that no practicable alternatives are available, the guidelines then require that appropriate and practicable steps be taken to minimize potential adverse effects on the aquatic ecosystem (40 C.F.R. 230.10(d)). Such steps may include actions controlling discharge location, material to be discharged, the fate of material after discharge or method of dispersion, and actions related to technology, plant and animal populations, or human use (40 C.F.R. 230.70-230.77).

Beyond the requirement for demonstrating that no practicable alternatives to the proposed discharge exist, the Section 404(b)(1) Guidelines also require the Corps to compile findings related to the environmental impacts of discharge of dredged or fill material. The Corps must make findings concerning the anticipated changes caused by the discharge to the physical and chemical substrate and to the biological and human use characteristics of the discharge site.

These Guidelines also indicate that the level of effort associated with the preparation of the alternatives' analysis be commensurate with the magnitude of the impact and/or discharge activity (40 C.F.R. 230.6(b)).

The San Gabriel River 2b (SGR2b) levee is part of the larger Los Angeles County Drainage Area (LACDA). The LACDA is a comprehensive flood-risk management plan, and its 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.

During a routine maintenance inspection in April 2017, significant toe erosion was discovered on the right bank of the SGR2b levee 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 and directed flows at the levee embankment. This section of levee was previously repaired and fortified with derrick stone. Despite the placed stone, the impingement persists, and the levee's embankment is actively being scoured, undermined and is at risk of failing. A failure of the

levee system would increase the risk associated with flooding, as well as, the potential risk of loss of life. See Figure 1.

# 2 BASIC AND OVERALL PROJECT PURPOSE

## 2.1 Basic Project Purpose

The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether a project is water dependent. The Section 404(b)(1) Guidelines state that if an activity associated with the discharge proposed for a special aquatic site does not require access or proximity to, or siting within, the special aquatic site in question to fulfill its basic purpose, the activity is not water-dependent.

For this project, the basic project purpose is flood-risk reduction, which is water dependent.

## 2.2 Overall Project Purpose

The overall project purpose serves as the basis for the Corps' section 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the goals and accounts for logistical considerations for the project, and which allows a reasonable range of alternatives to be analyzed. It is critical that the overall project purpose be defined to provide for a meaningful evaluation of alternatives. It should not be so narrowly defined as to give undue deference to the preferred alternative, thereby unreasonably limiting the consideration of alternatives. Conversely, it should not be so broadly defined as to render the evaluation unreasonable and meaningless.

For this project, the overall project purpose is to alleviate 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.


Figure 1. Excessive sediment and vegetation have directed flows at the levee's embankment

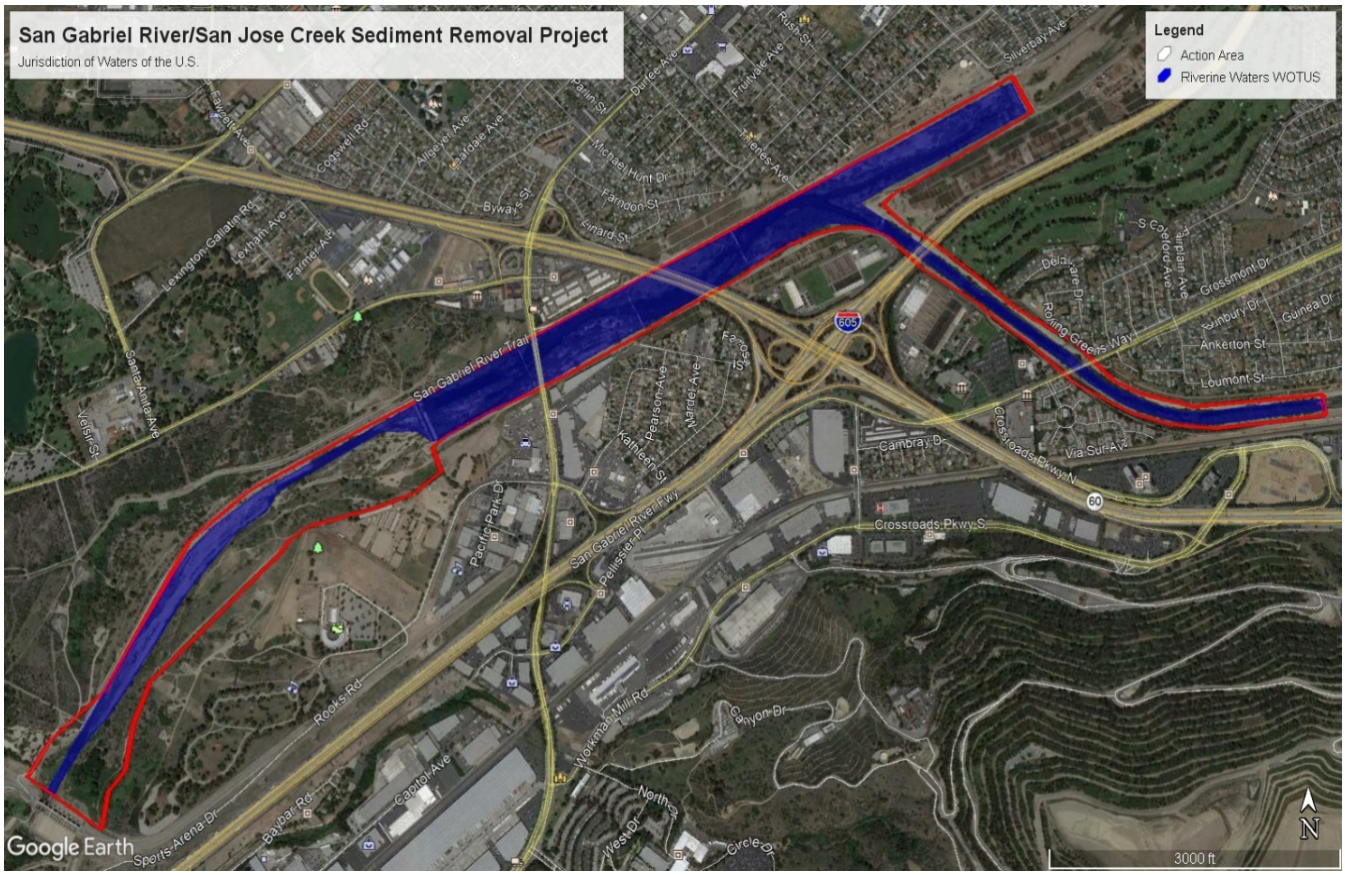


Figure 2- Preliminary Jurisdictional Delineation of Waters of the U.S.- San Gabriel River and San Jose Creek Confluence

# 3 Jurisdictional Determination of the Waters of the U.S.

A preliminary jurisdictional determination (PJD) of Waters of the U.S. (WOTUS) within the project area was prepared. 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 2.

# 4 ALTERNATIVES CONSIDERED

Per the 404(b)(1) Guidelines, alternatives analysis required by the National Environmental Policy Act (NEPA) will generally suffice as the alternatives analysis under the Guidelines. On occasion, these NEPA documents may address a broader range of alternatives than required to be considered under Guidelines or may not have considered the alternatives in sufficient detail to respond to the requirements of these Guidelines. In the latter case, it may be necessary to supplement these NEPA documents with this additional information.

Alternatives considered for the operations and maintenance action under NEPA 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, 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. The no action alternative would not meet the overall project purpose and is not evaluated in this document. The Proposed Action, Alternative 2, would consist of removing the excess accumulated sediment and vegetation in its entirety, bringing the design elevations and 15-degree entrance angle back into compliance with design parameters. The proposed action is the only alternative to meet the overall project purpose.

The nature of the Proposed Action would require work within WOTUS.

## 4.1 Proposed Action Alternative

The Proposed Action consists of the 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 3). 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. No structural alterations or modifications of structural elements of the engineered channel will occur.

Maintenance activities may include dewatering and/or water diversion for the immediate project footprint to perform the vegetation and sediment removal.

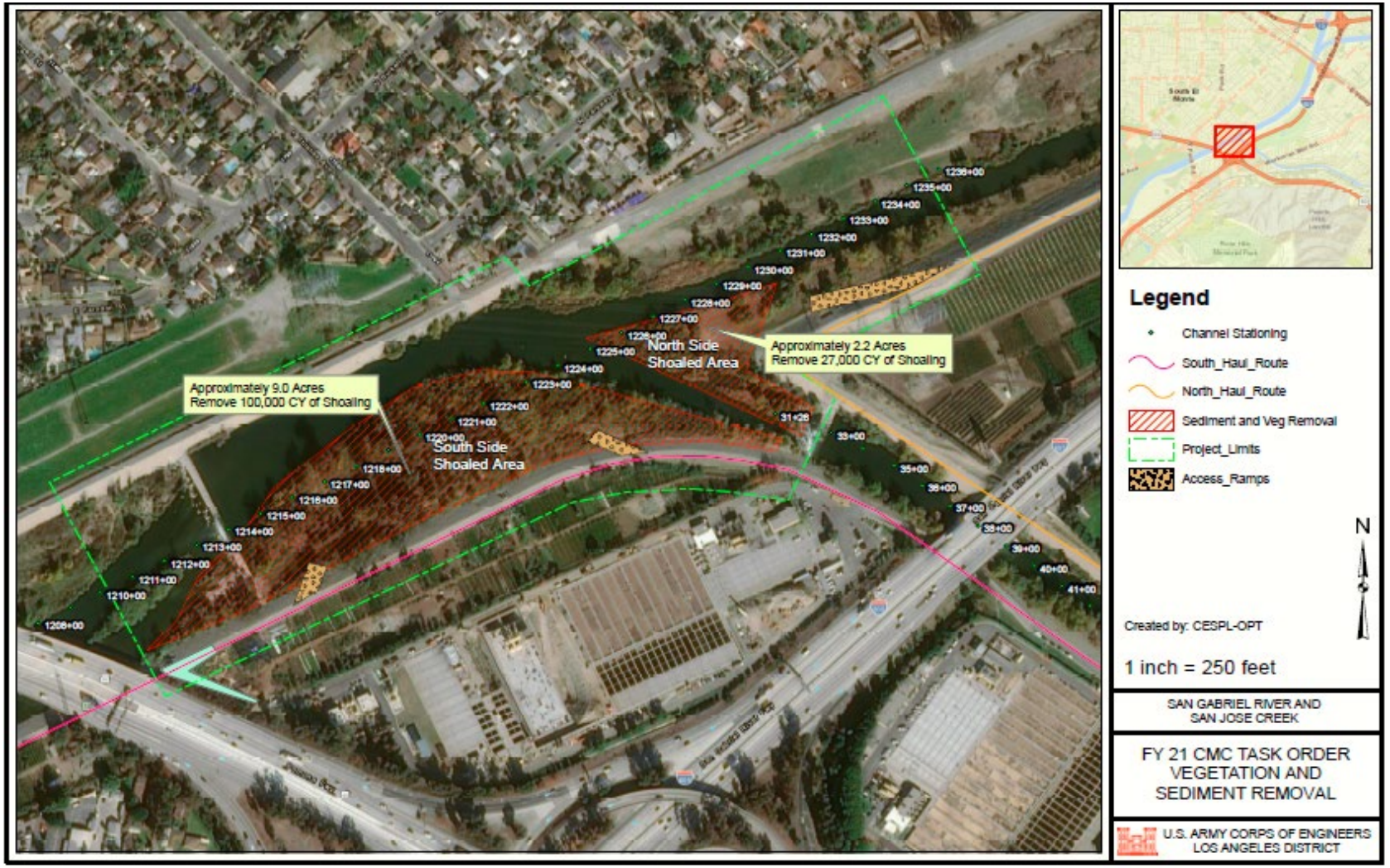


Figure 3-Proposed Action boundary for sediment and vegetation removal, staging and access.

Two staging areas are proposed. One staging area will be located in the southwest corner of the project area, measuring approximately 0.23 acres. A second staging area would be located south of the project area, off Workman Mill road and along San Jose Creek and would measure approximately 0.16 acres (Figure 4 and 5).


Figure 4 – Proposed Staging Areas

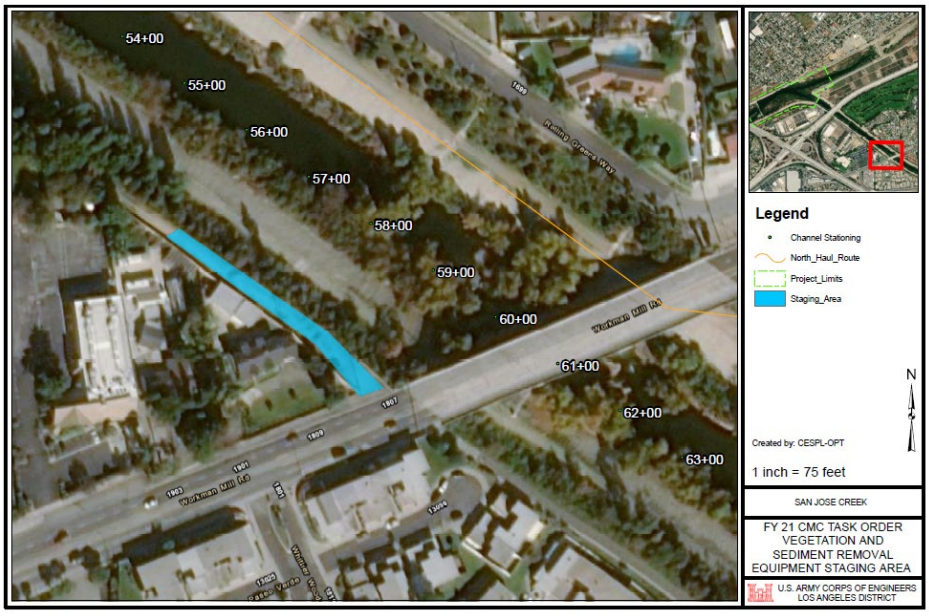


Figure 5 – Proposed Staging Areas

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 3 for proposed locations). Figure 6 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 footprint. Approximately 2,000 cy of fill will be required for temporary access into the channel. To minimize turbidity, fiber rollsand or sandbags would be installed below the ramp during its construction and removal. Prior to maintenance, the contractor would submit the design of the temporary ramps to the Corps for review and approval.

Figure 6- Example of tempoary access ramp and fill placement

The Corps has committed to mitigating at a 2:1 ratio for permanent impacts to riparian habitat. Approximately, 11.2 acres of permanentimpacts to riparian habitat would result from the accumulated sediment and vegetation removal, and 17.8 acres of temporary impacts are anticipated from the staging areas and ingress egress locations, some of which would occur outside of WOTUS. A total of 20.2 acres of compensatory mitigation in the form of enhancement is proposed to offset permanent impacts to 9.0 acres of riparian habitat through invasive/non-native species removal within the project area (Figure 7).

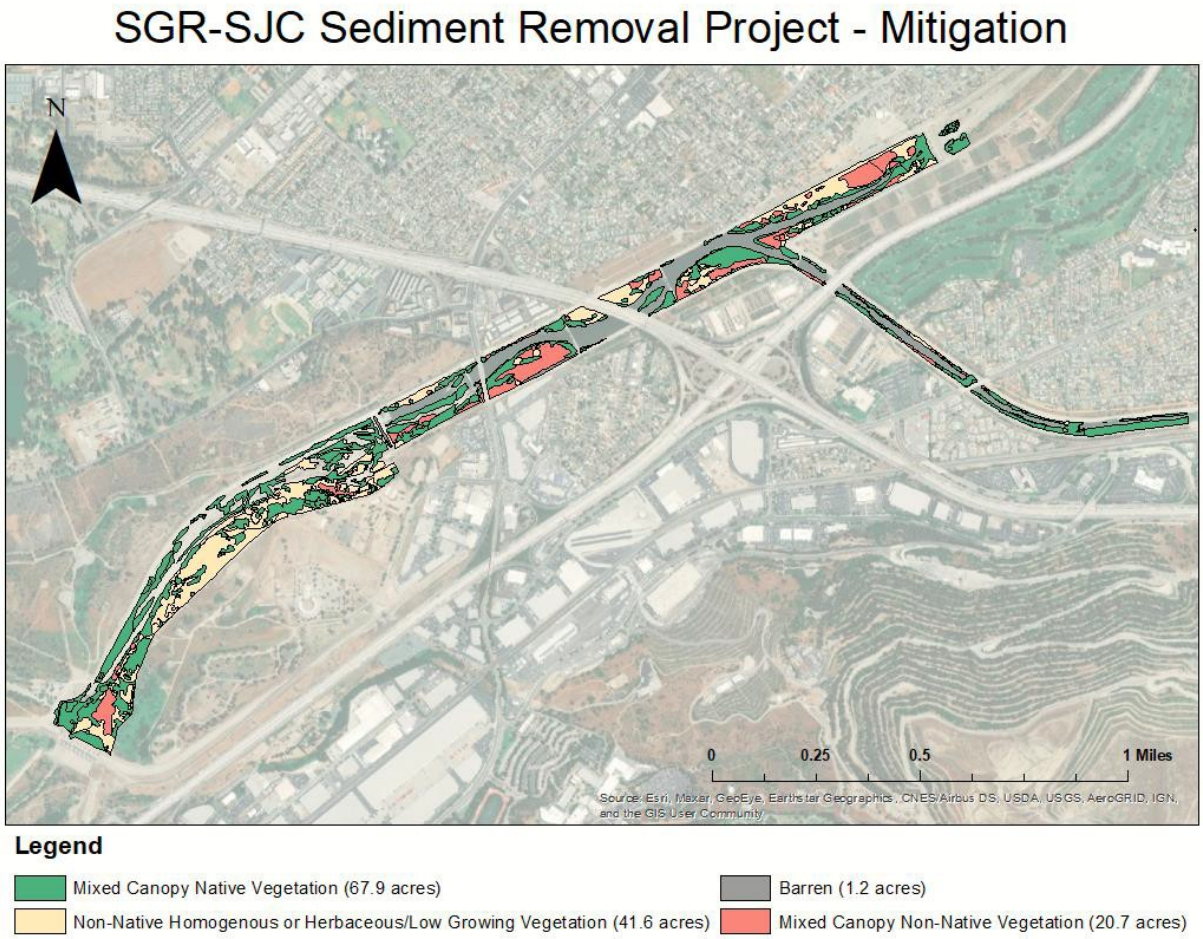


Figure 7 - Area of potential vegetation enhancement through invasive species removal. Total acreage proposed is 20.2 acres.

The breakdown of the proposed discharges of dredge and fill material into WOTUS is shown in Table 1.

**Table 1 Estimated Quantities of Fill Material to be Excavated and Processed**

| Item | Quantity (cy) |
|---|---|
| Accumulated Sediment | 127,000 |
| General fill | 2,000 |
| **Total** | **129,000** |

All excess accumulated sediment and material will be properly disposed of off-site. 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.

## 4.2 No Action Alternative

Under the No Action Alternative, the Corps would not modify the existing channel conditions within SGR2b. No excess accumulated sediment or vegetation will be removed. Concerns regarding continued shoaling and erosion will continue under current conditions.

# 5 ENVIRONMENTAL EFFECTS

The purpose of the Section 404(b)(1) Guidelines is to restore and maintain the chemical, physical, and biological integrity of the WOTUS through the control of discharges of dredged or fill material. Except as provided under CWA Section 404(b)(1), no discharge of dredged or fill material will be authorized if there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, as long as the alternative does not have other significant adverse environmental consequences. In accordance with the Section 404(b)(1) Guidelines, the potential short-term or long-term effects of a proposed discharge of dredged or fill material on the physical, chemical, and biological components of the aquatic environment must be determined.

The following discussion evaluates impacts of the proposed action alternative on environmental resources identified in Subpart C through Subpart F of the Section 404(b)(1) Guidelines.

## 5.1 Physical and Chemical Characteristics Determinations (Subpart C)

### 5.1.1 Substrate

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.

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 topsoils 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.

Additionally, the installation of access ramps may be needed for construction. Approximately, 2,000 cy of material will be needed. Material for the ramps will either be obtained from excess sediment on site or from commercially available sources. With the completion of construction, the material whether excess sediment or imported fill will be removed from the site in its entirety. Ultimately this will not change the substrate within the channel. Potential for dewatering or diversion may occur within the channel. Turbidity may increase but will be also be temporary in nature. Measures will be taken to ensure water quality standards are adhered to during construction; temporary BMPs may be utilized include waddle placement, use of filter socks and/or allowing the downstream flows to disperse over cobble before entering the active channel resulting in drop out of sediment.

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.

### 5.1.2 Suspended Particulates and Turbidity

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 WOTUS.

Sandbars throughout the project footprint 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. In addition, BMPs would be implemented which may include use of fiber rolls, gravel bags, waddles, filter socks and/or allowing the downstream flows to disperse over cobble before entering the active channel resulting in drop out of sediment to reduce the potential for increased turbidity; however, water quality standards will be adhered to throughout construction. Additionally, a storm water pollution prevention plan (SWPPP) would be developed to minimize possible pollutants from entering the WOTUS from upland areas of the project should the area of disturbance exceed one (1) acre.

Maintenance would not entail discharge of permanent fill material within WOTUS. However, up to three earthen access ramps would be placed within WOTUS during maintenance, resulting in the temporary discharge of fill material. To minimize turbidity, fiber rolls and or gravel bags would be installed below the ramp during its construction and removal.

The discharges or dredged and fill material would comply with the 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.

### 5.1.3 Contaminants

The potential exists for impacts to surface water quality to result from accidental leaks or spills of potentially hazardous materials, including fuels and lubricants required for operation of construction vehicles and equipment.

To protect against potential negative effects to water quality, there are several design criteria and environmental commitments in place as discussed in Section 6 below.

### 5.1.4 Current Patterns and Water Circulation

The removal of the excess accumulated material from the San Gabriel River will return the capacity of the channel to its intended design capacity. This will nominally increase the width of the channel to accommodate active flows and return the confluence back to the 15-degree design requirement, which in turn will reduce the erosion of the SGR2b levee. Dewatering or redirecting of flows may be needed to accommodate operation and maintenance activities within the project footprint. This would be temporary in nature, and flows would be returned to their natural state after completion. No structural alterations or modifications of structural elements of the engineered channel will occur. No significant changes in current patterns or water circulation are anticipated.

### 5.1.5 Cumulative Impacts

Potential cumulative impacts on water resources and hydrology from the Proposed Action will be temporary in nature. Placement of fill or use of accumulated sediment for access routes may temporarily increase turbidity within the immediate project vicinity; however, BMPs and good housekeeping measures will be in place to minimize impacts due to sedimentation and/or the introduction of other potential contaminants through compaction, the use of gravel bags, and/or waddles and ensuring spill prevention and cleanup procedures are in place. The discharges or dredged and fill material would comply with the 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 and not exceed Water Quality Standards. Ultimately, long term impacts to the substrate and water quality are not anticipated as the Proposed Action will return the channel to its intended design elevations, relieving impingement of flows and reducing sediment buildup.

## 5.2 Potential Effects on Biological Characteristics of the Aquatic Ecosystem (Subpart D)

### 5.2.1 Threatened and Endangered Wildlife

**Least Bell's Vireo (FE)**
Least Bell's vireo (vireo) are known to currently maintain seven (7) territories within the project area. Of the seven (7) known territories occurring within the project area, two lie within the permanent construction footprint, five (5) lie within the remainder of the project area. This would result in potential permanent displacement of two territories and temporary displacement of five (5) territories as a result of the vegetation and sediment removal. This is assuming suitable vireo habitat is available throughout the Whitter Narrows Reservoir and that displaced vireo throughout the Reservoir and Whittier Narrows recreational areas would be able to utilize other suitable habitat in the area. 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 including the placement of 2,000 cy of material for access and the removal of the 127,000 cy of accumulated sediment. 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. Of the two (2) known territories occurring within the project area, none are within the permanent construction footprint including the placement of 2,000 cy of material for access and the removal of the 127,000 cy of accumulated sediment. No potential permanent displacement of territories is expected because these were juvenile gnatcatchers dispersing through the habitat within and adjacent to the project area. 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 gnatcatcher 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 enhancement and maintenance within the project footprint. 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 limit 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.

### 5.2.2 Fish, Crustaceans, Mollusks, and other Aquatic Organisms

Turbidity could directly impact aquatic organisms with limited mobility. However, turbidity impacts would be temporary and be limited to construction and will be minimized using BMPs.

### 5.2.3 Other Wildlife

The Proposed Action would include design aspects and implementation of BMPs and measures that would address potential effects related to temporary habitat loss, excessive noise, increased human presence, fugitive dust emissions, and habitat movement. The San Gabriel River watershed has significant ecological importance for wildlife and provides a transition between fragmented habitats in the region. The Proposed Action would remove the 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 significantly 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 would not be significant. Permanent and temporary impacts to habitat would be offset by approximately 20.2 acres of enhancement through removal of non-native species. The Proposed Action would not result in a substantial loss to the population of wildlife or wildlife movement.

### 5.2.4 Cumulative Impacts

The Proposed Action may impact up to five (5) known territories of the vireo. Two (2) territories lie within the permanent construction footprint for sediment and vegetation removal, and five (5) lie within the remainder of the project area including the 20.2 acres of vegetation enhancement through the removal of non-native species. This would result in potential permanent displacement of two (2) territories and temporary displacement of five (5) territories. To minimize potential impacts vegetation clearing would occur outside of the nesting season, and sensitive species monitoring would occur through the duration of construction activities. Though immediate impacts of construction may occur, long term impacts are not anticipated. 20.2 acres of vegetation enhancement through non-native species removal will result in an increase in habitat value and create additional suitable nesting habitat for the vireo within and immediately adjacent to the project footprint. Potential cumulative impacts on biological resources, water resources and hydrology from the Proposed Action are anticipated to be less than significant.

## 5.3 Potential Effects on Special Aquatic Sites (Subpart E)

### 5.3.1 Wetlands and Vegetated Shallows

No wetlands and vegetated shallows exist within the project area. Therefore, none would be impacted by the Proposed Action.

### 5.3.2 Mud Flats

No mud flats exist within the project area. Therefore, none would be impacted by the Proposed Action.

### 5.3.3 Coral Reefs

No coral reefs exist within the project area. Therefore, none would be impacted by the Proposed Action.

### 5.3.4 Riffle and Pool Complexes

No riffle and pool complexes exist within the project area. Therefore, none would be impacted by the Proposed Action.

### 5.3.5 Cumulative Impacts

As the above resources under Section 5.3 do not occur within the project footprint, the potential cumulative impacts on water resources and hydrology from the Proposed Action are less than significant.

## 5.4 Potential Effects on Human Use (Subpart F)

### 5.4.1 Municipal and Private Water Suppliers

The Proposed Action is not anticipated to impact utilities or water supply within the project area. Water

would be required for dust abatement and cleaning of construction equipment. The amount of water required would depend on the length of access roads, weather conditions, road surface conditions, and other site-specific conditions. However, water use would not affect availability of water for the local population or other needs of the surrounding cities.

### 5.4.2 Recreational and Commercial Fisheries

There are no commercial or recreational fisheries within the project area.

### 5.4.3 Water-Related Recreation

There are no water-related recreation activities within areas where construction or mitigation would occur.

### 5.4.4 Aesthetics

Under Proposed Action, the sediment and vegetation removal would be visible during the operations and maintenance. The Proposed Action would include accumulated sediment and vegetation removal, staging areas and access ramps, as well as the potential for dewatering or stream diversion within the channel. The project features can be seen in Figures 3-6. Within the immediate project vicinity there are several recreational areas including the San Gabriel River Trail to the north and the San Gabriel River Trail – Eastern Bank which shares the maintenance access road as a multi-use path. Therefore, activities would be visible to recreationalists, pedestrians, homeowners and businesses. However, given that activities are temporary, these impacts would not be adverse.

### 5.4.5 Parks, national and historical monuments, national seashores, wilderness areas, and research sites

There are no parks, national and historical monuments, national seashores, wilderness areas, or research sites within the project area.

### 5.4.6 Cumulative Impacts

Potential cumulative impacts on human uses from the Proposed Action are not anticipated as utilities, recreational and commercial fisheries, water-related recreation and parks and wilderness areas do not occur within the project footprint. Any potential impacts to aesthetics will be temporary in nature and would not be considered adverse or significant.

## 5.5 Evaluation and Testing (Subpart G)

The Proposed Action Alternative would result mostly in discharges of native and/or commercial fill within WOTUS associated with earthmoving activities and access. All excess accumulated sediment and vegetation material will be removed from WOTUS before project completion.

Fill material for constructing the access ramps would be obtained from the project site or would be chemically inert and would not leach contaminants into the water column. Per 40 C.F.R 230.60(a), testing is not required.

# 6 ACTIONS TO MINIMIZE ADVERSE EFFECTS (Subpart H)

Environmental commitments include project design features and best management practices that are incorporated into the project description 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.

BR-9 Comply with all terms and conditions of the US Fish and Wildlife Service Biological Opinion for the San Gabriel/San Jose Creek Confluence Sediment Removal Project issued August 10, 2021.

**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.

# 7 COMPENSATORY MITIGATION FOR LOSSES OF AQUATIC RESOURCES (SUBPART J)

All discharges of fill would result in short-term, minimal impacts to physical and chemical characteristics of the aquatic ecosystem. Proposed Action would not result in temporary or permanent impacts to wetland WOTUS.

To compensate for the loss of aquatic resources, the Corps has proposed mitigating at a 2:1 ratio for permanent impacts to riparian habitat (Environmental commitment BR-4). Approximately, 11.2 acres of permanent impacts will result from the accumulated sediment and vegetation removal, and 17.8 acres of temporary impacts is anticipated from the staging areas and access ramp locations, some of which will occur outside of WOTUS. A total of 20.2 acres of compensatory mitigation in the form of enhancement is proposed to offset permanent impacts to 9.0 acres of riparian habitat. This will include vegetation enhancement through invasive/non-native species removal within and near the project area (Figure 6). The vegetation enhancement area will be conducted for a minimum of 10 years. Per the USFWS issued a biological opinion, dated August 10, 2021, the enhancement areas will be coordinated with the USFWS prior to construction and documented in the enhancement plan (see conservation measure 2 of Appendix A of the EA).

# 8 CONCLUSION

The Proposed Action is the Recommended Plan. The discharge associated with the Proposed Action complies with the 404(b)(1) guidelines pursuant to 40 C.F.R. § 230.12. The determination of compliance is based on the following findings:

1. There are no available, practicable alternatives having less adverse impact on the aquatic ecosystem and without other significant adverse environmental consequences that do not involve discharge into Waters of the United States. The Proposed Action is the least environmentally damaging practicable alternative (LEDPA).

2. The discharge will not violate state water quality standards specified in the Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties. The designated beneficial uses are municipal, groundwater recharge, warmwater habitat, and wildlife habitat, which are more fully described in Section 3.1.2 of the EA. The applicable water quality objectives as noted in the Water Quality Control Plan relate to the control of exotic vegetation, floating material in the form of trash, control of oil and grease as it relates to construction equipment, solid, suspended or settleable materials and turbidity as a result of

movement of the accumulated excess material. Construction would result in discharges of native earthen fill and/or approved commercially available sources of fill associated with the sediment removal and the installation of potential access routes, include the removal of approximately 20 acres of non-native species removal in the form of passive restoration efforts and involve the maneuvering of equipment and vehicles within the Waters of the US. The project will adhere to the terms and 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. Furthermore, measures to avoid and minimize impacts to water quality would be implemented during construction. Thus, the discharges of fill would not violate state water quality standards.

3. The discharge will not violate toxic effluent standards. Construction would result in discharges of native earthen fill and potentially fill from approved commercially available sources. Measures to avoid and minimize impacts to water quality would be implemented during construction. Thus, the discharges of fill would not violate toxic effluent standards.

4. The discharge will not jeopardize endangered or threatened species or their critical habitat. Sediment and vegetation removal activities associated with discharges of fill in WOTUS would directly and indirectly affect the least Bell's vireo and coastal California gnatcatcher. With implementation of avoidance, minimization, and offset measures, the discharges of fill would not jeopardize endangered or threatened species or their critical habitat. Pursuant to section 7 of the ESA, the USFWS issued a biological opinion, dated August 10, 2021, that determined the Proposed Action will not jeopardize the continued existence of the least Bell's vireo. All terms and conditions and conservation measures resulting from this consultation shall be implemented in order to minimize take of endangered species and avoid jeopardizing the species. Pursuant to section 7 of the ESA, the Corps determined that the Proposed Action may affect but is not likely to adversely affect the coastal California gnatcatcher and its designated critical habitat. The USFWS concurred with the Corps' determination on August 10, 2021. A copy of the biological opinion and letter of concurrence can be found in Appendix A of the EA.

5. The discharge will not violate standards set by the Department of Commerce to protect marine sanctuaries. No sanctuaries as designated by the Marine Protection, Research and Sanctuaries Act of 1972 will be affected by the Proposed Action.

6. The proposed discharge material will meet testing exclusion criteria.

   Evaluation of the information above indicates that the proposed discharge material meets testing exclusion criteria for the following reason(s):

   ( ) based on the above information, the material is not a carrier of contaminants.

   (x) the levels of contaminants are substantially similar at the extraction and disposal sites and the discharge is not likely to result in degradation of the disposal site and pollutants will not be transported to less contaminated areas.

   ( ) acceptable constraints are available and will be implemented to reduce contamination to acceptable levels within the disposal site and prevent contaminants from being transported beyond the boundaries of the disposal site.

7. The discharge will not contribute to significant degradation of WOTUS through adverse impacts to human health or welfare, through pollution of municipal water supplies, fish, shellfish, wildlife and special aquatic sites. The operation and maintenance activities could result in a discharge of dredge and fill material into the San Gabriel River. However, the project area does not impact wetlands, and do not support recreational fisheries, commercial fisheries or shellfish operations. Special aquatic sites such as wetlands and vegetated shallows are not present within the project area. There are no municipal water supplies present within the project area.

8. The discharge will not contribute to significant degradation of WOTUS through adverse impacts to diversity, productivity, and stability of the aquatic ecosystem, such as the loss of fish or wildlife habitat, or loss of the capacity of wetland to assimilate nutrients, purify water or reduce wave energy.

   There would be temporary impacts to wildlife habitat. With implementation of avoidance, minimization, and offset measures, the discharges of dredge and fill material would not permanently affect wildlife habitat. The project is not located within a marine environment and no wetlands are present within the project area, thus there would be no impacts to wave energy or wetlands.

9. The discharge will not contribute to significant degradation of WOTUS through adverse impacts to recreational, aesthetic, and economic values.

   There are no water-related recreational uses through areas where proposed discharges will occur. Thus, there would be no direct adverse impacts to recreation. The area within the San Gabriel River channel where proposed discharges would occur are located within areas used exclusively for operations and maintenance by the Corps. There are no uses of this area that would generate economic revenues. There would be temporary impacts to natural aesthetics of the channel associated with activities in WOTUS. However, there are no designated scenic resources in area such as Wild and Scenic Rivers, National Monuments, or federal wilderness areas where discharges of fill would disrupt the use of or economic revenues associated with designated scenic resources.

10. On the Basis of the Guidelines, the Proposed Disposal Site(s) for the Discharge of Dredged or Fill Material is:

    ____ (1) Specified as complying with the requirements of these guidelines; or,

    X____(2) Specified as complying with the requirements of these guidelines, with the inclusion of appropriate and practical conditions to minimize pollution or adverse effects on the aquatic ecosystem; or,

    ____ (3) Specified as failing to comply with the requirements of these guidelines. The required 404(r) statements are included in the Integrated Report.

Prepared by: Emily Lester
Date: August 10, 2021

# Appendix D. 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 and the Corps' Clean Water Act Section 401 Notification

US Army Corps of Engineers
Los Angeles District

*Operations Division*
*915 Wilshire Blvd, 11th Floor*
*Los Angeles, CA. 90017*

**NOTIFICATION:** Pursuant to Section II.B. of the May 12, 2017 Memorandum of Understanding (MOU) Between the United States Army Corps of Engineers, Los Angeles District and the California Regional Water Quality Control Board, Los Angeles Region (LARWQCB), Concerning Operation, Maintenance, Repair, Replacement, and Rehabilitation of the Los Angeles County Drainage Area Project in Waters of the United States.

**SUBJECT:** Maintenance of the SGR2b levee segment at the confluence of the San Gabriel River and San Jose Creek.

**Overall Project Description:** During a routine maintenance inspection in April 2017, significant toe erosion was discovered on the right bank of the SGR2b levee. During the 2018 Levee Periodic Inspection, it was determined that the entrance angle of San Jose Creek is 58.6 degrees, which is significantly greater than the current maximum design angle of 12-degrees that is allowed per EM 1110-2-1601 (Hydraulic Design of Flood Control Channels). 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 causing accelerated erosion. 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, and may potentially be undermined creating risk of failure.

The SGR2b levee is part of the larger Los Angeles County Drainage Area (LACDA). The LACDA is a comprehensive flood-risk management plan, and its 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 extensive property damage. In addition to this, several transmission towers on the land side of the levee where the erosion is occurring would be affected in the event of a levee failure.

The Corps proposes to implement sediment and vegetation removal required maintenance activities within the Gabriel River and San Jose Creek within the SGR2b levee segment to relieve the impinged flows that are actively scouring and damaging the levee. The SGR2b segment is located within the cities of South El Monte and Industry, Los Angeles County, approximately 11 miles east

of downtown Los Angeles, CA (Figure 1). The maintenance activities will include the removal of approximately 127,000 cubic yards of accumulated material and associated vegetation within 11.2 acres. Sediment will be excavated to the design elevation of the channel invert across the entire width of the channel between the San Gabriel and San Jose confluence and the Pomona Freeway (State Route 60). The design elevation for the channel invert is the top of the toe. The depth of the sediment ranges approximately from 3- 10 feet and the total construction footprint is approximately 17.8 acres. No structural alterations or modifications of structural elements of the engineered channel will take place.

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

Up to four temporary access ramps would be constructed to allow access into the channel. The temporary ramps would measure approximately 120 feet long, 15 ft. wide, and 2 ft. high and would be comprised of clean earthen fill or available existing excess material from the channel. Approximately 2000 cy of fill will be required to construct the temporary access ramps. The material would be obtained from the channel or from acceptable available commercial sources. Prior to construction, the contractor would submit the design of the temporary ramps to the Corps for review.

Maintenance activities may include dewatering and/or water diversion of the immediate project area to perform the vegetation and accumulated sediment removal.

In coordination with the US Fish and Wildlife Service (USFWS), the Corps has committed to mitigating 2:1 for permanent impacts to riparian habitat. Approximately, 11.2 acres of permanent impacts will result from the accumulated sediment and vegetation removal, and 17.8 acres of temporary impacts is anticipated from the staging areas and ingress egress locations, some of which will occur outside of Waters of the US. Permanent impacts to riparian habitat will require mitigation. A total of 18 acres of mitigation will be required to offset permanent impacts to 9.0 acres of riparian habitat. This will include vegetation enhancement through invasive species removal within and near the project area in accordance with the USFWS agreed upon locations (Figure 4).

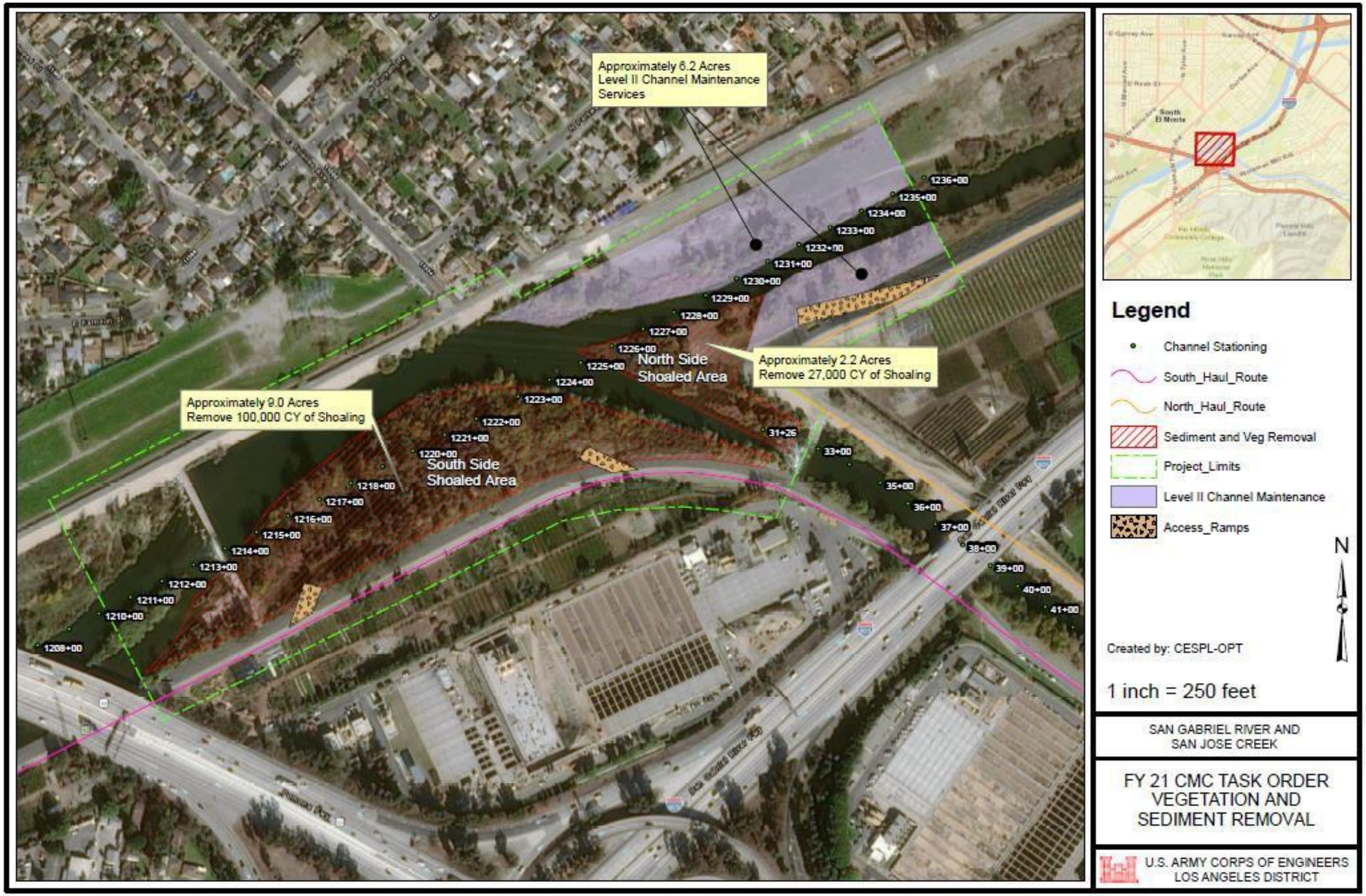


**Figure 1.** Project Location and Components

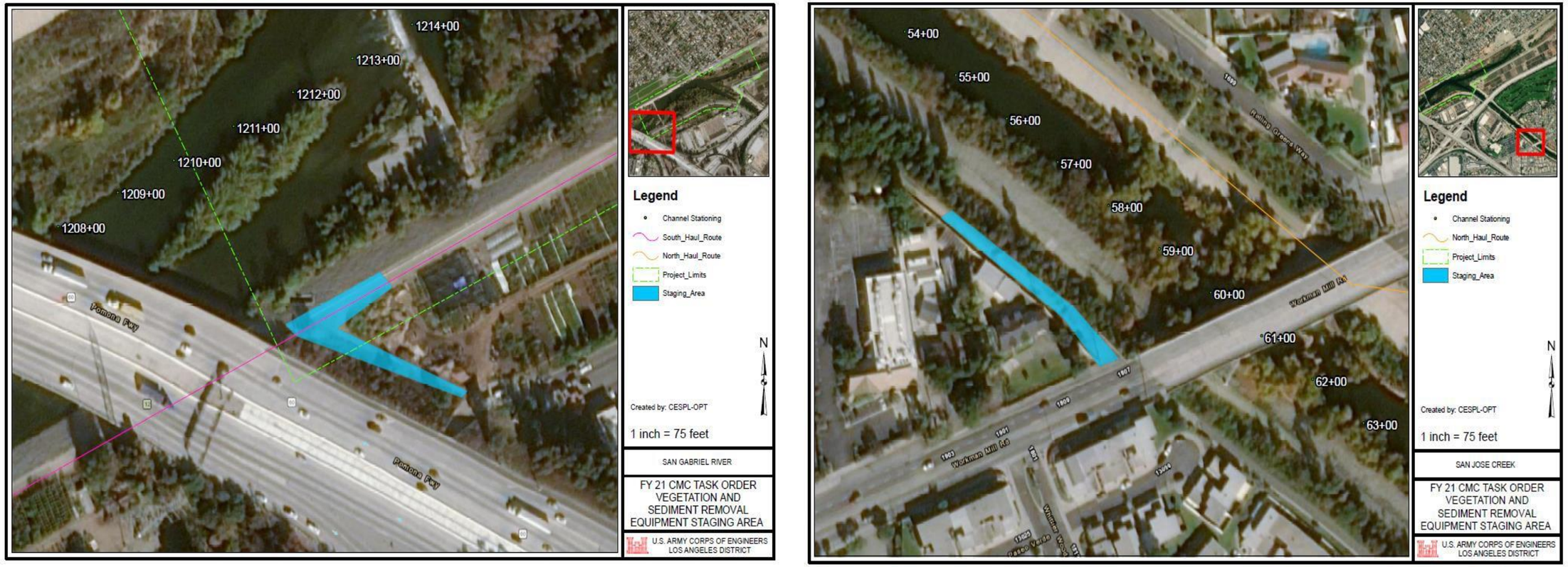


**Figure 2.** Staging Area Locations

**Figure 3.** The accumulated sediment and vegetation that is impinging the flows from San Jose Creek.

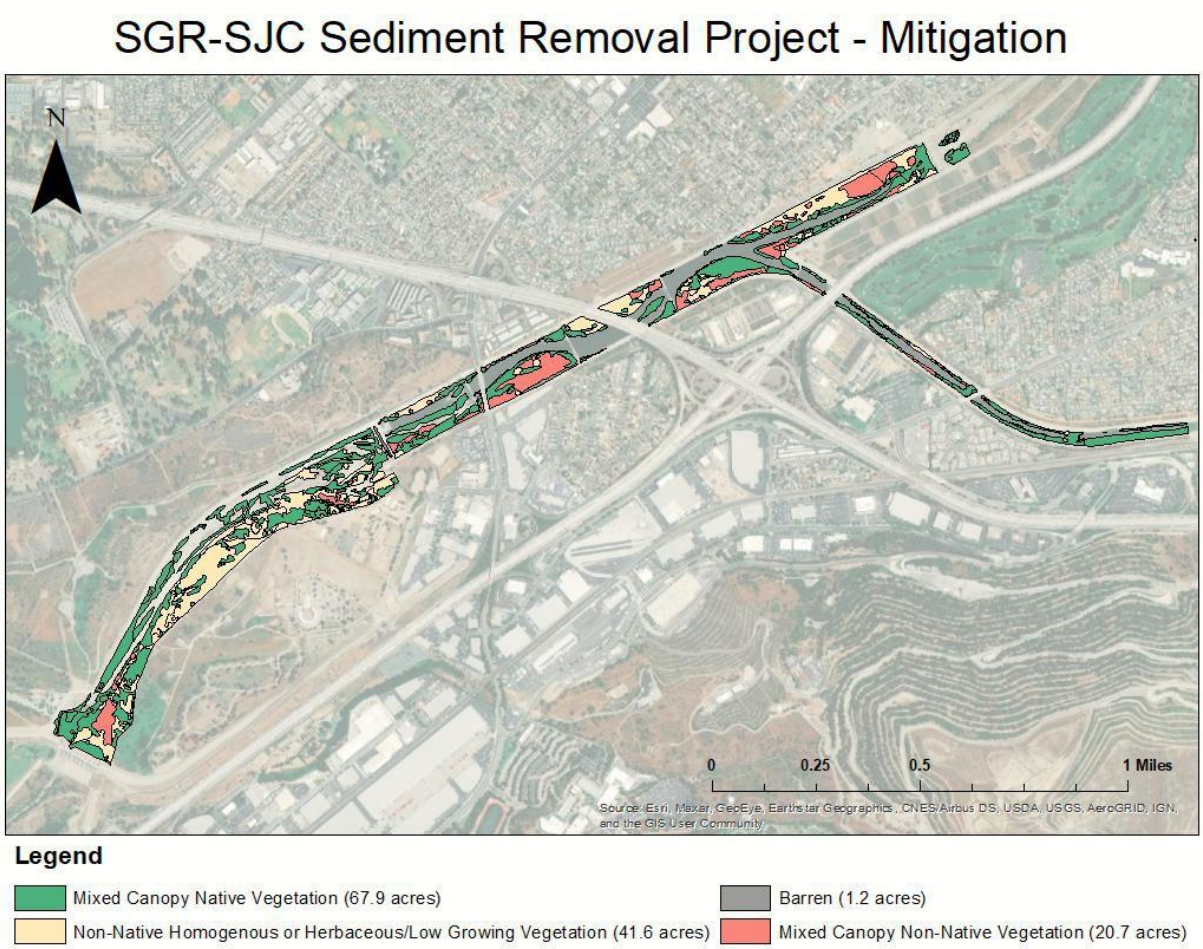


**Figure 4.** Area of potential vegetation enhancement through invasive species removal. Total acreage will account for 18 acres of mitigation to be finalized through USFWS coordination.

**Proposed Schedule:** Construction is scheduled to commence in Fall 2021 and finish in Fall 2024. It is possible that the activities would be completed in stages, with multiple start dates and construction periods for various phases depending on funding, environmental windows, and weather delays. Construction 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 construction schedule, but timing would comply with local noise ordinances.

**Name of Receiving Water Body(ies):** San Gabriel River

**Describe Potential Impacts to Water Quality:** The proposed action would entail repair of an existing portion of channel and levee. The channel in this reach is trapezoidal and comprised of concrete/grouted stone with an earthen invert and would return the project area to the as built condition. There would be no loss of waters of the US.

The proposed action would require ground-disturbing work and use of construction equipment within the San Gabriel and San Jose Rivers. Prior to construction, the work area within waters of the US 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. Temporary access ramps would be constructed to allow access into the channel. The temporary ramps would measure approximately 120 feet long, 15 ft. wide, and 2 ft. high and would be comprised of clean earthen fill or existing excess material from the channel. Approximately 2000 cy of fill will be required to construct the temporary access ramps. Approximately 127,000 cy of accumulated sediment and associated vegetation will be removed.

Movement of vehicles across the channel during the placement and removal of dewatering structures would temporarily elevate turbidity in the water column. When fully isolated from surrounding low-flows, work within the rivers would result in no increases in turbidity. Use of construction vehicles increases the potential for accidental release of fuels, solvents, or other petroleum-based contaminants. Discharge of fill materials are not expected to result in long-term introduction of contaminants into the water column. All temporary fill would be chemically inert and would be removed upon completion of construction.

**Amount, in Acres and Linear Feet (where appropriate), of Waters of the United States Would be Impacted by the Activity, and Identify the Impact(s) as Permanent or Temporary:** The activities will result in approximately 11.2 acres of permanent impacts from the removal of accumulated sediment and vegetation; 7 acres of temporary construction impacts associated with temporary access, and approximately 18 acres of temporary impacts as a result of the vegetation enhancement through invasive species removal.

**Indicate the Amount (cubic yards) and Type of Fill Material to be Discharged/Installed in Waters of the United States:**

Accumulated Sediment Removal: 127,000 cubic yards (cy)
Access Ramp (Fill placement): 2,000 cy

**Best Management Practices (BMPs) to be Implemented to Avoid and/or Minimize Impacts to Jurisdictional Waters of the United States**:

**Appendix I: Technical Certification Conditions**

In addition to standard conditions outlined in the notification, the Corps shall satisfy the following:

1. 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.
☒Yes, ☐No ☐Not Applicable
Rationale if "No" or "Not Applicable" is entered:

2. The Corps shall maintain a copy of this Certification and supporting documentation (Project Information Sheet) 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 this Certification.
☒Yes ☐No ☐Not Applicable
Rationale if "No" or "Not Applicable" is entered:

3. Activities shall not cause visible oil, grease, or foam in the receiving water.
☒Yes ☐ No ☐ Not Applicable
Rationale if "No" or "Not Applicable" is entered:

4. Refueling of equipment within the waterway is prohibited.
☒Yes ☐No ☐Not Applicable
Rationale if "No" or "Not Applicable" is entered:

5. 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.
☒Yes ☐No ☐Not Applicable
Rationale if "No" or "Not Applicable" is entered:

6. The Corps must perform inspections of construction equipment prior to utilizing it in surface waters to ensure leaks from the equipment are not occurring and are not a threat to water quality.
☒Yes ☐No ☐Not Applicable
Rationale if "No" or "Not Applicable" is entered:

7. The Corps 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.
☒Yes ☐No ☐Not Applicable
Rationale if "No" or "Not Applicable" is entered:

8. 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.
☒Yes ☐No ☐Not Applicable
Rationale if "No" or "Not Applicable" is entered:

9. Silt fencing, straw wattles, or other effective management practices must be used along the construction zone to minimize soil or sediment along the embankments from migrating into the waters of the United States through the entire duration of the project.
☒Yes ☐ No ☐ Not Applicable
Rationale if "No" or "Not Applicable" is entered:

10. All earthen embankment areas disturbed by project activities that could contribute to water quality impairment shall be protected from erosion.
☒Yes ☐No ☐Not Applicable
Rationale if "No" or "Not Applicable" is entered:

11. All temporarily affected areas in soft bottom channels shall be restored to pre-construction contours upon completion of construction activities.
☒Yes ☐No Not Applicable
Rationale if "No" or "Not Applicable" is entered:

12. All materials resulting from the activity shall be removed from the site and disposed of properly.
☒Yes ☐No ☐Not Applicable
Rationale if "No" or "Not Applicable" is entered:

13. This Certification does not allow permanent water diversion of flow from the receiving water. This Certification is invalid if any water is permanently diverted as a part of the activity.
☒Yes No☐ ☐ Not Applicable
Rationale if "No" or "Not Applicable" is entered:

14. If surface flows in the work area exceed an average water depth of 6 inches, measured by using a yard stick at three or more random locations that account for water depth variability within the work area, the Corps shall isolate the work area via water diversion unless technically

infeasible or financially impracticable. In the event water diversion is technically infeasible or financially impracticable, other BMPs to protect water quality shall be implemented in order to avoid and minimize impacts to water quality, especially to limit increases to turbidity. Other BMP methods to control turbidity may include downstream check dams, or gravel, or compost filled turbidity socks, or other appropriate methods. In the event the Corps implements a BMP in place of a water diversion, the Corps shall document for the record why a water diversion was not implemented. Upon its request, the Corps shall share such record with the Regional Water Board. If water diversion is anticipated, the Corps shall follow its Los Angeles County Drainage Area Project *Water Diversion and Best Management Practices Guide.* If water quality monitoring indicates that an activity will adversely impact water quality, the Corps shall alter or modify water diversion or BMPs to minimize impacts to water quality.
☒Yes ☐No ☐Not Applicable
Rationale if "No" or "Not Applicable" is entered:

15. 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. In the event of a prohibited discharge, the Corps shall notify the Regional Water Board's contact persons pursuant to paragraph 7 of the Settlement Agreement within 24-hours of the discharge.
☒Yes ☐No ☐Not Applicable
Rationale if "No" or "Not Applicable" is entered:

16. If construction or groundwater dewatering is proposed or anticipated, the Corps shall obtain any necessary NPDES permits prior to discharging waste.
☒Yes ☐No ☐Not Applicable
Rationale if "No" or "Not Applicable" is entered:

17. The Corps shall allow the staff of the Regional Water Board, or an authorized representative(s), upon the presentation of credentials and other documents, as may be required by law, to enter the work area for inspection, including taking photographs and securing copies of project-related records, for the purpose of assuring compliance with this Certification.
☒Yes ☐No ☐Not Applicable
Rationale if "No" or "Not Applicable" is entered:

18. The Corps shall conduct water quality monitoring to ensure effectiveness of water diversions and/or other in-water work or BMPs implemented in lieu of water diversions. If surface flows are present, upstream and downstream monitoring for the following shall be implemented:

- pH
- temperature
- dissolved oxygen
- turbidity

These constituents shall be measured at least once prior to diversion or other BMP implementation and then monitored on a daily basis during the first week and then on a weekly

basis, thereafter, until the in-stream work is complete. Monitoring shall take place during the period when clearing activities are occurring. The Corps shall review water quality data each day water quality data is collected.
☒Yes ☐No ☐Not Applicable
Rationale if "No" or "Not Applicable" is entered:

19. Pre-project planning shall include consideration of contingency measures to address various flow discharges, if anticipated.
☒Yes ☐No ☐Not Applicable
Rationale if "No" or "Not Applicable" is entered:

20. When invasive species may be encountered, BMPs to limit the spread of invasive species shall be considered and implemented to the extent appropriate as follows:

(a) The District shall follow the Regional General Permit 41 BMPs in the removal and disposal of invasive plants.

(b) All equipment, including equipment for personnel such as hand tools, survey equipment and boots, that have been deployed in an area which supports New Zealand mud snails, shall be subject to a program of inspection and be carefully cleaned before use at an additional project site.

(c) Construction and maintenance personnel shall be instructed in invasive species control methods.

☒Yes ☐No Not Applicable
Rationale if "No" or "Not Applicable" is entered:

**Attachment(s):** The Corps' Draft NEPA and Biological Assessment are attached hereto. Final Documents will be provided when they are available.

**Notification of Completion:** In accordance with Condition D of the Certification, no later than 45 days after activity completion, the Corps will provide the LARWQCB, by email, with a Notice of Completion demonstrating that the activity has been carried out in accordance with the activity description above and/or provide an explanation as to any deviations/modification accompanied with a map of the activity location(s) and representative pre-and post-construction photographs, with each photograph including a descriptive title, date taken, photographic site, and photographic orientation and all water quality data collected.

**PREPARED BY:**

Emily Lester

Date: 04/14/2021

Emily Lester
Biologist, Planning Division, Environmental Resources Branch, Regional Planning Section
Los Angeles District, USACE

**REVIEWED BY:**

SNYDER.TREVOR.ROIGH.1187728017 Digitally signed by SNYDER.TREVOR.ROIGH.1187728017 Date: 2021.04.22 13:53:43 -07'00'

Date: 4/22/2021

Trevor Snyder
Project Manager, Los Angeles River Operations Division
Los Angeles District, USACE

**APPROVED BY:**

Michael Turanitza, PhD Digitally signed by Michael Turanitza, PhD Date: 2021.04.22 14:38:38 -07'00'

Date: _____

Michael Turanitza
Deputy Chief, Operations Division, Chief, Management Support Branch
Los Angeles District, USACE

**ATTACHMENT A**

# MEMORANDUM OF UNDERSTANDING

# BETWEEN

# THE UNITED STATES ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT

# AND

# THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

# CONCERNING

# OPERATION, MAINTENANCE, REPAIR, REPLACEMENT, AND REHABILITATION

# OF THE LOS ANGELES COUNTY DRAINAGE AREA PROJECT

# IN WATERS OF THE UNITED STATES

THIS MEMORANDUM OF UNDERSTANDING ("MOU") is entered into pursuant to a settlement agreement executed on May 8, 2017 ("Agreement") between the United States Army Corps of Engineers, Los Angeles District ("District") and the California Regional Water Quality Control Board, Los Angeles Region ("Regional Water Board"), collectively referred to as the "Signatories."

## RECITALS

WHEREAS, the Los Angeles County Drainage Area ("LACDA") project is a congressionally authorized flood risk management project the District constructed pursuant to the Emergency Relief Appropriation Act of 1935, as amended, and the Flood Control Act of 1936, as amended.

WHEREAS, the LACDA project included the construction of Hansen, Sepulveda, Santa Fe, Whittier Narrows, Lopez and Haines Canyon Debris Basin flood risk management basins, debris basins in 31 tributary canyons, 93 miles of main channel and 147 miles of tributary channels, including 316 bridges on the Los Angeles, Rio Hondo, and San Gabriel rivers. Construction of the LACDA project took 20 years to complete. Linear LACDA facilities include segmented reaches of channels throughout Los Angeles County, and are composed of concrete rectangular channels, concrete trapezoidal channels, or soft bottom channels with reinforced or armored trapezoidal embankments.

WHEREAS, pursuant to the Flood Control Act of 1938, the United States Army Corps of Engineers ("Corps") is authorized to perform operation, maintenance, repair, replacement, and rehabilitation ("OMRR&R") of certain sections and/or features of the LACDA project, including 5 dam basins, 1 debris basin and 45 non-contiguous miles of linear levee and channel.

WHEREAS, Clean Water Act ("CWA") § 301, 33 U.S.C. § 1311(a), prohibits "the discharge of any pollutant" except in compliance with a permit or as otherwise authorized under the CWA.

WHEREAS, CWA § 404, 33 U.S.C. § 1344 authorizes the Corps to issue permits for discharges of dredged or fill material into waters of the United States.

WHEREAS, CWA § 404(t), 33 U.S.C. § 1344(t), provides that "[n]othing in this section shall preclude or deny the right of any State or interstate agency to control the discharge of dredged or fill material in any portion of navigable waters within the jurisdiction of such States, including any activity by any Federal agency, and each agency shall comply with such State or interstate requirements both substantive and procedural to control the discharge of dredged or fill material to the same extent that any person is subject to such requirements."

WHEREAS, activities that do not result in a discharge of any pollutant into waters of the United States do not require a CWA § 404 permit; and not all discharges require a permit under the CWA pursuant to 33 U.S.C. § 1344(f)(1) and 33 C.F.R. § 323.2(d)(3).

WHEREAS, CWA § 401(a)(1), 33 U.S.C. § 1341(a)(1), provides that "[a]ny applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate."

WHEREAS, 33 C.F.R. § 336.1, provides that "[a]lthough the Corps does not process and issue permits for its own activities, the Corps authorizes its own discharge of dredged or fill material by applying all applicable substantive legal requirements including [application for] state water quality certification for discharges of dredged or fill material into waters of the U.S."

WHEREAS, individual LACDA project OMRR&R activities, such as temporary stream diversion and dewatering and removal of accumulated sediment and vegetation from soft bottom channels, may involve discharges of dredged or fill material into water of the United States for which the District may be required to seek CWA § 401 certification from the Regional Water Board.

WHEREAS, other individual LACDA project OMRR&R activities may not involve discharges of any pollutant into waters of the United States, or may involve only discharges of dredged or fill material that are exempt or excepted from CWA permitting requirements, and therefore would not require the District to seek CWA § 401 certification from the Regional Water Board.

NOW, THEREFORE, the Signatories hereby acknowledge and declare as follows:

## I. PURPOSE

A. In the interest of mutual cooperation, the Regional Water Board and the District have developed this MOU to coordinate the respective regulatory processes associated with the District's LACDA OMRR&R activities in waters of the United States.

B. The Signatories recognize that this MOU provides guidance about the nature of, or extent of, water quality control measures described in Section II that may be required for individual LACDA project OMRR&R activities that may require CWA § 401 certification.

## II. WATER QUALITY CONTROL MEASURES

A. The District agrees to notify the Regional Water Board's contact persons pursuant to paragraph 7 of the Agreement by email on our around October 31 of each Federal fiscal year this MOU is in effect, listing the planned LACDA projects OMRR&R activities and specific locations in LACDA for that year, and indicating, to the extent known, whether the activity falls under Section II.B. or II.C. of this MOU. For activities planned in Federal fiscal year 2017, the District agrees to notify the Regional Water Board's contact persons pursuant to paragraph 7 of the Agreement of those activities by email within thirty (30) days of the execution of the MOU.

B. CWA § 401 Water Quality Certification for Certain LACDA Project OMRR&R Activities.

1. The CWA § 401 Water Quality Certification attached hereto and incorporated by reference as Exhibit A shall apply to LACDA project OMRR&R activities that involve discharges of dredged or fill material that are subject to CWA permitting requirements. The District agrees to comply with the conditions of that certification.

2. To the extent not otherwise certified under CWA § 401, categories of LACDA OMRR&R activities that may result in discharges of dredged or fill material into waters of the United States and those covered by the CWA § 401 Water Quality Certification attached hereto as Exhibit A, include, but are not limited to:

a. The repair, rehabilitation, or replacement of any previously constructed structures or fill that result in deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement.

b. The removal of sediment and associated vegetation, resulting from activities associated with the maintenance of earthen debris basins or earthen retention/detention basins that were constructed by the District.

c. Survey activities, such as core sampling, seismic exploratory operations, plugging of seismic shot holes and other exploratory-type bore holes, exploratory trenching, soil surveys, sampling, sample plots or transects for wetland delineations, and historic resources surveys. The term "exploratory trenching" means mechanical land

clearing of the upper soil profile to expose bedrock or substrate, for the purpose of mapping or sampling the exposed material.

d. Temporary structures, work, and discharges, including cofferdams, necessary for construction activities, water diversion, access fills, or dewatering of construction sites.

e. Mechanized land clearing, mechanized mulching, mechanized removal, chipping, and excavation of living or dead invasive, exotic plants from the bottom of earthen channels, and the temporary stockpiling of invasive plants within such earthen channels.

f. Mechanized land clearing of sediment and associated vegetation, including clearing of multiple stands of emergent vegetation or significant vegetation, from earthen bottom channels.

C. Other Individual LACDA Project OMRR&R Activities

1. Individual LACDA project OMRR&R activities for which CWA § 401 water quality certification may not be required include, but are not limited to:

a. Discharges of dredged or fill material resulting from activities associated with the maintenance, repair, rehabilitation, or replacement of any previously constructed structures or fill *that do not* result in deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement.
b. Activities that involve only the cutting or removing of vegetation above the ground (e.g., mowing, rotary cutting, and chain sawing) where the activity neither substantially disturbs the root system nor involves mechanized pushing, dragging, or other similar activities that redeposit excavated soil material.
c. Activities that involve removal of accumulated sediment and vegetation from fully lined, grouted-stone and concrete channels, when water diversions are not used.

2. For any such LACDA project OMRR&R activities in water of the United States:

a. The District agrees to consider and implement best management practices ("BMPs"), to the extent appropriate. Potential BMPs are identified in Exhibit B, attached hereto and incorporated by reference. The BMPs identified in Exhibit B may not be applicable to every individual LACDA project OMRR&R activity, nor is every possible BMP listed for every individual LACDA project OMRR&R activity. In the event the District implements "other BMPs" to limit increases of turbidity levels caused by individual LACDA project OMRR&R activities, such as downstream check dams, clean gravel-filled or compost-filled turbidity/filter socks, the parties recognize that these "other BMPs" may result in the discharge of dredge or fill

material that is not exempt from the need for a CWA § 401 water quality certification. For this reason, the Regional Water Board has expressly waived § 401 water quality certification for "other BMPs" implemented by the District should they result in a discharge of dredged or fill material into waters of the United States. Such waiver is attached hereto as Exhibit C and incorporated by reference.

b. The District agrees to notify the Regional Water Board by email at least 45 calendar days prior to commencing an individual LACDA project OMRR&R activity, which includes information provided below, except in the case of an emergency:

(1) Activity description

(2) Proposed schedule (start date, and completion date)

(3) Name(s) of receiving water body(ies)

(4) A brief description of the BMPs to be implemented to avoid and/or minimize impacts to waters of the United States.

c. Under emergency circumstances, the District shall alert the Regional Water Board, via telephone and email, of a potential emergency activity and notify the Regional Water Board's contact persons pursuant to paragraph 7 of the Agreement of the information described in the subparagraph b, above, as soon as practicable.

3. Within fifteen (15) working days of receipt of the District's notification, the Regional Water Board may transmit comments by email to the District concerning the adequacy of the District's BMPs. The District agrees to consider the Regional Water Board's comments concerning the adequacy of the specific BMPs to be implemented. The Regional Water Board agrees that the District retains the discretion in determining the appropriateness of the adequacy of the BMPs pursuant to Section II.C. of this MOU based on the specific facts and application of relevant statutes and regulations.

4. The District agrees to notify the Water Board by email no later than thirty (30) calendar days after completion of an individual LACDA project OMRR&R activity subject to Section II.C., providing a description of the work completed, a map of the project location, and representative pre- and post-OMRR&R activity photographs.

**III. GENERAL PRINCIPLES**

A. This MOU applies to the District's OMRR&R activities associated with the LACDA project, and does not have broader applicability beyond LACDA project features for which the District retains OMRR&R responsibility.

B. This MOU does not modify existing agency authorities by reducing, expanding or transferring any of the statutory or regulatory authorities and responsibilities of any of the Signatories.

C. Nothing in this MOU shall be construed as obligating any of the Signatories to the expenditure of funds in excess of appropriations authorized by law or otherwise commit any signatory to actions for which it lacks statutory authority.

D. This MOU does not, and is not intended to, create any other right or benefit, substantive or procedural, enforceable at law or equity by a party against the United States, the State of California, any agencies thereof, any officers or employees thereof, or any other person, except as provided in the Agreement.

E. The policies and procedures contained within this MOU are intended solely to improve the working relationships of the Signatories in connection with decisions with regard to individual LACDA project OMRR&R activities. This MOU does not restrict either the District or the Regional Water Board in exercising its discretion in each case to make regulatory decisions based on its judgment about the specific facts and application of relevant statutes and regulations.

F. This MOU may be modified, as necessary, by mutual agreement of both parties, by a written amendment signed and dated by an authorized representative of each party.

G. This MOU will remain in force for 10 years from the effective date.

H. This MOU is not a final Federal agency action by the District, and does not, and is not intended to, create any right, benefit, or responsibility, substantive or procedural, enforceable at law or equity by any person or party against the United States, its agencies, its officers, or any other person, except as provided in the Agreement.

I. This MOU is to be construed in a manner consistent with all existing laws and regulations.

J. This MOU neither expands nor is in derogation of those powers and authorities vested in the Signatories by applicable laws, statutes, or regulations.

K. This MOU does not alter or modify compliance with any applicable Federal or State laws or regulations.

L. This MOU does not direct or apply to any party outside of the signatory agencies. The terms of this MOU are not intended to be enforceable by any party other than the Signatories hereto.

M. All provisions in this MOU are subject to the availability of funds.

ACCORDINGLY, the Signatories have signed this Memorandum of Understanding on the dates set forth below, to be effective for all purposes as of the date last signed, subject to the execution of the

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Agreement. The signatures may be executed using counterpart original documents.

U.S. Army Corps of Engineers, Los Angeles District

Dated: 12 May 2017

Kirk E. Gibbs
Colonel, US Army
Commander and District Engineer

California Regional Water Quality Control Board, Los Angeles Region

Samuel Unger

Dated: May 8, 2017

Samuel Unger, P.E.
Executive Officer

Exhibit A

CWA § 401 Water Quality Certification

CLEAN WATER ACT § 401 TECHNICALLY CONDITIONED WATER QUALITY CERTIFICATION; 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

This Order is a Water Quality Certification (Certification) for the OMRR&R of the LACDA project (Project) system in waters of the United States by the U.S. Army Corps of Engineers, Los Angeles District (District). This Certification provides coverage for permanent and temporary impacts to waters of the United States. For OMRR&R activities, the District will take all appropriate and practicable steps to avoid and minimize adverse impacts to waters of the United States, shall minimize adverse impacts to native, aquatic vegetation and water quality in the activity work areas, and shall not adversely impact water quality, aquatic vegetation, or aquatic habitat downstream of the Project activity work areas.

This Certification provides regulatory coverage for the District's OMRR&R of 5 flood risk management dam basins, 1 debris basin and approximately 45 miles of flood risk management channels and levees within Los Angeles County related to the Project. Coverage under this Certification is for OMRR&R activities conducted in waters of the United States within Los Angeles County, which include: Haines Canyon Debris Basin, Hansen Dam, Lopez Dam, Santa Fe Dam, Sepulveda Dam, Whittier Narrows Dam, Alhambra/San Pasqual Wash, Ballona Creek, Compton Creek, Los Angeles River, Haines Canyon Channel, upper and lower Rio Hondo, San Gabriel River (above and below Whitter Narrows Dam), San Gabriel River (above Santa Fe Dam), and San Jose Creek.

WATER QUALITY CERTIFICATION STANDARD CONDITIONS:

1. This Order serves as a Certification action that is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to § 13330 of the California Water Code and § 3867 of the California Code of Regulations.

2. This Certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to § 3855(b) of the California Code of Regulations, and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

3. All reports, notices, or other documents required by this Certification or requested by the Los Angeles Regional Water Quality Control Board (Regional Water Board) shall be signed by either a principal executive officer or ranking elected official or by a duly authorized representative of that person.

4. Any person signing a document under Standard Condition number 3 shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am

aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

B. CERTIFICATION CONDITIONS:

1. Routine Notification

In addition to the above standard conditions, the District shall notify the Regional Water Board's contact persons pursuant to paragraph 7 of the Settlement Agreement by email at least 75 days prior to discharging dredged or fill material into waters of the United States. The notification shall include the following:

(a) Activity Description

(b) Proposed Schedule (start date, and completion date)

(c) Name(s) of Receiving Water Body(ies)

(d) Describe potential impacts to water quality

(e) Amount, in ACRES and LINEAR FEET (where appropriate), of waters of the United States would be impacted by the activity, and identify the impacts(s) as permanent and/or temporary.

(f) Indicate the amount (cubic yards) and type of fill material to be discharged/installed in waters of the United States

(g) Briefly describe best management practices (BMPs) to be implemented to avoid and/or minimize impacts to waters of the United States, including preservations of habitats, erosion control measures, project scheduling, flow diversions, etc.

(h) The District shall attach to the notification a copy of the District's compliance with the National Environmental Policy Act and Clean Water Act 404(b)(1) Guidelines, as applicable.

2. Emergency Notification:

Under emergency circumstances, the District shall alert the Regional Water Board's contact persons pursuant to paragraph 7 of the Settlement Agreement, via a phone call and email, of a potential emergency project as soon as known and make a notification by email of the information in paragraphs B.1.(a-h) above, as soon as practicable.

C. TECHNICAL CERTIFICATION CONDITIONS:

In addition to the above standard conditions, the District shall satisfy the following:

1. 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.

2. The District shall maintain a copy of this Certification and supporting documentation (Project Information Sheet) 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 this Certification.

3. Activities shall not cause visible oil, grease, or foam in the receiving water.

4. Refueling of equipment within the waterway is prohibited.

5. 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.

6. The District must perform inspections of construction equipment prior to utilizing it in surface waters to ensure leaks from the equipment are not occurring and are not a threat to water quality.

7. The District 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.

8. 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.

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

10. All earthen embankment areas disturbed by project activities that could contribute to water quality impairment shall be protected from erosion.

11. All temporarily affected areas in soft bottom channels shall be restored to pre-construction contours upon completion of construction activities.

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

13. This Certification does not allow permanent water diversion of flow from the receiving water. This Certification is invalid if any water is permanently diverted as a part of the activity.

14. If surface flows in the work area exceed an average water depth of 6 inches, measured by using a yard stick at three or more random locations that account for water depth variability within the work area, the District shall isolate the work area via water diversion unless technically infeasible or financially impracticable. In the event water diversion is technically infeasible or financially impracticable, other BMPs to protect water quality shall be implemented in order to avoid and minimize impacts to water quality, especially to limit increases to turbidity. Other BMP methods to control turbidity may include downstream check dams, or gravel, or compost filled turbidity socks, or other appropriate methods. In the event the District implements a BMP in place of a water diversion, the District shall document for the record why a water diversion was not implemented. Upon its request, the District shall share such record with the Regional Water Board. If water diversion is anticipated, the District shall follow the

District's Los Angeles County Drainage Area Project *Water Diversion and Best Management Practices Guide*. If water quality monitoring indicates that an activity will adversely impact water quality, the District shall alter or modify water diversion or BMPs to minimize impacts to water quality.

15. 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. In the event of a prohibited discharge, the District shall notify the Regional Water Board's contact persons pursuant to paragraph 7 of the Settlement Agreement within 24-hours of the discharge.

16. If construction or groundwater dewatering is proposed or anticipated, the District shall obtain any necessary NPDES permits prior to discharging waste.

17. The District shall allow the staff of the Regional Water Board, or an authorized representative(s), upon the presentation of credentials and other documents, as may be required by law, to enter the work area for inspection, including taking photographs and securing copies of project-related records, for the purpose of assuring compliance with this Certification.

18. The District shall conduct water quality monitoring to ensure effectiveness of water diversions and/or other in-water work or BMPs implemented in lieu of water diversions. If surface flows are present, upstream and downstream monitoring for the following shall be implemented:

☐ pH

☐ temperature

☐ dissolved oxygen

☐ turbidity

These constituents shall be measured at least once prior to diversion or other BMP implementation and then monitored on a daily basis during the first week and then on a weekly basis, thereafter, until the in-stream work is complete. Monitoring shall take place during the period when clearing activities are occurring. The District shall review water quality data each day water quality data is collected.

19. Pre-project planning shall include consideration of contingency measures to address various flow discharges, if anticipated.

20. When invasive species may be encountered, BMPs to limit the spread of invasive species shall be considered and implemented to the extent appropriate as follows:

(a) The District shall follow the Regional General Permit 41 BMPs in the removal and disposal of invasive plants.

(b) All equipment, including equipment for personnel such as hand tools, survey equipment and boots, that have been deployed in an area which supports New Zealand mud snails, shall be subject to a program of inspection and be carefully cleaned before use at an additional project site.

(c) Construction and maintenance personnel shall be instructed in invasive species control methods.

D. NOTIFICATIONS AND REPORTS:

21. The District shall provide 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.

WATER QUALITY CERTIFICATION:

I hereby certify that as long as all of the conditions listed in this certification are met, any discharge of dredged or fill material into waters of the United States related to OMRR&R of the Project will comply with the applicable provisions of § 301 ("Effluent Limitations"), § 302 ("Water Quality Related Effluent Limitations"), § 303 ("Water Quality Standards and Implementation Plans"), § 306 ("National Standards of Performance"), and § 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act.

California Regional Water Quality Control Board, Los Angeles Region

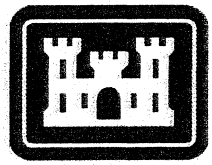
Samuel Unger Dated: May 8, 2017

Samuel Unger, P.E.
Executive Officer

Exhibit A, Attachment 1

Los Angeles County Drainage Area Project

Water Diversion and Best Management Practices Guide



US Army Corps
of Engineers®

**Los Angeles County Drainage Area Project**

**Water Diversion and Best Management Practices Guide**

**Los Angeles District**

**April 2015**

## 1.0 INTRODUCTION

The U.S. Army Corps of Engineers' ongoing maintenance program of the Los Angeles County Drainage Area (LACDA) system entails the proper operation and function of six flood risk management facilities and approximately 34 miles of flood control channels and levees within Los Angeles County (see Figure 1). Routine maintenance and repair activities ensure proper operation of the outlet works and preserve design flow conveyance and retention capacities of the LACDA system.

### 1.1 PURPOSE

This document describes temporary water diversion structures and associated best management practices that would be implemented as appropriate for routine and periodic maintenance activities within aquatic areas of LACDA.

Most flows within the LACDA system are riverine. The lone exception is the terminus of Ballona Creek where riverine flows are subject to tidal influence. Moreover, most flows within the system are ephemeral. One major exception is the Los Angeles River downstream of Sepulveda Basin where flows are perennial due to discharge of treated water from the Tillman Water Reclamation Plant and the Los Angeles-Glendale Water Reclamation Plant. If present, reclaimed waters within the system are typically low flows.

Though scheduled maintenance is conducted year-round, most of the work is done in the dry due to the absence of flows in many channels and basins within LACDA. In cases where in-water work may be required, the Corps would assess the potential impacts to water quality. If deemed appropriate, temporary water diversion structures would be discharged in order to avoid and minimize impacts to water quality during routine maintenance activities within aquatic areas of LACDA.

## 2.0 FACILITY TYPES AND DESCRIPTIONS

### 2.1 BASIN FACILITIES

The Corps operates and maintains six basin facilities within LACDA. With the exception of Haines Canyon Debris Basin and Lopez Dams, the remaining LACDA basin facilities support a variety of land uses including but not limited to recreation, education, equestrian, military, and wastewater treatment. The

dominant land use is recreation. Recreational areas are leased to the City of Los Angeles at Hansen Dam and Sepulveda Dam. The County of Los Angeles leases recreational areas within the basins for Santa Fe and Whittier Narrows Dam. The lessees are responsible for all operations and maintenance activities within the leased lands. The Corps maintains small operational areas primarily within the vicinity of the inlet and outlet works.

| **Facility Name** | **Total Area (acre)** | **Operational Area (acre)** | **Location (lat/long WGS 84)** |
|---|---|---|---|
| Haines Canyon Debris Basin | 7.6 | n/a[1] | 34 15 40 , -118 16 37 |
| Hansen Dam | 1,500 | 8.5 | 34 15 41, -118 23 06 |
| Lopez Dam | 103 | 5.9 | 34 18 21, -118 24 36 |
| Santa Fe Dam | 1,970 | 10.0 | 34 07 04, -117 57 19 |
| Sepulveda Dam | 2,121 | 10.8 | 34 10 26, -118 29 23 |
| Whittier Narrows Dam | 2,812 | 7.0 | 34 1 18, -118 04 53 |

[1] Neither annual nor routine periodic maintenance is performed at Haines Canyon Debris Basin on an annual basis. The last maintenance activity within the aquatic area occurred in 2010 in order to remove sediment and debris from the Station Fire. Prior to that action, the basin had not been cleaned for 40 years.

**2.2 LINEAR FACILITIES**

Linear LACDA facilities include segmented reaches of channels throughout Los Angeles County. They are composed of concrete rectangular channels; concrete trapezoidal channels or soft bottom channels with reinforced or armored trapezoidal embankments.

| **Facility Name** | **Channel Configuration** | **Length (miles)** |
|---|---|---|
| Alhambra/San Pasqual Wash | concrete rectangular | 4 |
| Ballona Creek | soft bottom | xxx |
| Ballona Creek | concrete trapezoidal | 1.6 |
| Compton Creek | concrete rectangular | 4.5 |

| | | |
|---|---|---|
| Los Angeles River | concrete/soft bottom | 3 |
| Los Angeles River | concrete rectangular | 3.7 |
| Los Angeles River (Glendale Narrows) | soft bottom/reinforced trapezoidal | 12 |
| Haines Canyon Channel | concrete rectangular | 1.8 |
| Rio Hondo | concrete rectangular | |
| San Gabriel River (above Whittier Narrows Dam) | soft bottom/armored trapezoidal embankment | 1.2 |
| San Gabriel River (above Santa Fe Dam) | soft bottom/armored trapezoidal embankment | 3 |
| San Jose Creek | soft bottom/armored trapezoidal embankment | 1 |

## 3.0 ROUTINE MAINTENANCE ACTIVITIES IN AQUATIC AREAS

### 3.1 DAM OUTLET WORKS AND APPROACH CLEANOUT

Debris, sediment and vegetation from the approaches to the dams may be removed in preparation for the storm season. Vegetation and debris clogging the outlet works (e.g., gates) or appurtenant structures such as log booms may also be removed. The activity may require the use of backhoes, loaders, or dozers working in a channel in combination with dump trucks. Equipment would enter the channel via existing access ramps.

### 3.2 CONCRETE CHANNEL CLEANOUT

Debris, sediment and vegetation from concrete channels are removed on a monthly basis to maintain conveyance capacities and vector control. There are approximately 4,000 cubic yards (cy) of debris, sediment, and vegetation that need to be removed from Corps-maintained concrete channels. Approximately 100 cy of debris are removed monthly from concrete channels using grapple trucks, rubber-tired dump trucks with a grapple arm attachment. The use of grapple trucks eliminates the need for temporary stockpiles in aquatic areas. However, backhoes or loaders working in a channel in combination with dump trucks may be utilized as needed. Equipment would enter the channel via existing access ramps.

### 3.3 SOFT BOTTOM CHANNEL CLEANOUT

The primary activity within soft bottom channels is trash removal. Approximately 3,500 tons of trash is removed annually using grapple trucks. In addition, vegetation near the levee toes may be removed in order to maintain levee structural integrity. Construction equipment such as backhoes, loaders, and excavators may be utilized as needed. Equipment would enter the channel via existing access ramps. Vegetation is removed from levee toes and concrete inverts via hand tools.

### 3.4 STRUCTURAL REPAIR

Repair activities within basin and channel facilities may include replacement or repair of damaged structures. In-channel repair activities would entail re-shaping and re-compaction of earthen channels to repair erosion damage, replacement of damaged concrete in lined channels and other in-kind replacement bank protection. These types of repairs do not alter the facility footprint or change the designed uses.

### 3.5 ROUTINE MAINTENANCE ACTIVITIES BY BASIN FACILITIES

- **Haines Canyon Debris Basin:** Neither annual nor routine periodic maintenance is performed at Haines Canyon Debris Basin on an annual basis. The last maintenance activity within the aquatic area occurred in 2010 in order to remove sediment and debris from the Station Fire. Prior to that action, the basin had not been cleaned for 40 years.

- **Hansen Dam:** Annual maintenance activities typically occur over a two-week period between January and February. The operational area immediately upstream of the inlet works is cleared of sediment and debris. Debris caught on the inlet works is removed. Approximately 1,000 cy of debris and sediment are typically removed. Structural damages are repaired. Vegetation may be mowed or removed by other means as needed. See Figure 2.

- **Lopez Dam:** Annual maintenance activities typically occur over a two-week period between October and November. The operational area immediately upstream of the inlet works is cleared of sediment and debris. Debris caught on the inlet works is removed. Approximately 5,000 cy of debris and sediment are typically removed. Structural damages are repaired. Vegetation may be mowed or removed by other means as needed. See Figure 3.

- **Santa Fe Dam:** Annual maintenance activities typically occur over a two-week period between March and April. The operational area immediately upstream of the inlet works is cleared of sediment and debris. Debris caught on the inlet works is removed. Structural damages are repaired. The area adjacent to the log boom and associated anchor points are cleared. Once every five years, the energy dissipater immediately downstream of the outlet works is cleaned. The structure is dewatered, sediment is removed, and damaged concrete baffles and blocks are repaired. See Figure 4.

- **Sepulveda Dam:** Annual maintenance activities typically occur between November and December. Duration of work is typically being two weeks but may be longer based on maintenance needs. An approximately seven-acre area in the concrete lined portion of the Los Angeles River from Burbank Boulevard to the inlet works is cleared of sediment and debris. Debris caught on the inlet works is removed. Approximately 4,000 cy of debris and sediment are typically removed. Structural damages are repaired.

An approximately 48-acre area between Burbank Boulevard and the dam, outside of active channel on River Right is maintained as needed. Maintenance activities may include but are not limited to removal of non-native trees and vegetation; vegetation mowing; trimming of native trees; removal of debris and litter associated with unauthorized encampments; herbicide application; structural repair; bank stabilization; and road maintenance. See Figure 5.

- **Whittier Narrows (Rio Hondo):** Annual maintenance activities typically occur over a two-week period between February and March. The operational area immediately upstream of the inlet works is cleared of sediment and debris. Debris caught on the inlet works is removed. Structural damages are repaired. Vegetation may also be mowed or removed by other means as needed. Vegetation from an approximately 50-foot-wide by 650-foot-long rectangular area immediately downstream of the outlet works is cleared.

The area within the cross-connector channel between Rio Hondo and San Gabriel River immediately upstream of the Rosemead Boulevard crossing is cleared of sediment and debris. See Figure 6.

- **Whittier Narrows (San Gabriel River):** Annual maintenance activities typically occur over a two-week period between February and March. The operational area immediately upstream of the inlet works is cleared of sediment and debris. Debris caught on the inlet works is removed. Structural damages are repaired. Vegetation may also be mowed or removed by other means

as needed. Vegetation from an approximately 50-foot-wide by 650-foot-long rectangular area immediately downstream of the outlet works is cleared. See Figure 7.

## 4.0 WATER DIVERSION METHODS

### 4.1 TRANSVERSE COFFERDAMS

Transverse cofferdams may be used as needed in channels or basins to span the entire cross-section of the facility upstream of the maintenance or repair activity. Water would be impounded upstream of the cofferdam and a bypass system would route flows through the work area. Transverse cofferdams typically consist of sandbags, inflatable dams or k-rails. A gravity pipeline would be used to bypass water through or adjacent to the work area. In earthen bottom channels, a temporary riprap apron would be placed at the pipe outlet to dissipate energy and minimize erosion.

### 4.2 LONGITUDINAL COFFERDAMS

A longitudinal cofferdam may be used as needed in cases where low flows are present within the work area. The structure allows work to proceed in the dewatered portion of the channel while allowing low flows to continue along the remaining part of the channel. In concrete channels, longitudinal cofferdams would be constructed from k-rails and sandbags. The water diverting segment of the cofferdam at the upstream end of the work area would be relocated from one side of the channel to another.

### 4.3 DIVERSION BERM & LOW FLOW CHANNEL

In earthen bottom channels, a low flow channel would be excavated around the work area as needed. An earthen berm would be constructed from the excavated material to protect the worksite. The discharge of sediment into the temporary low flow channel would be reduced by the use of erosion and siltation controls such as silt-fencing, coir rolls (also known as straw wattles), filter fabric and silt-free sand bags.

### 4.4 EXCAVATED BASIN DIVERSION

A temporary detention basin may be excavated as needed upstream of a work area. Water would be bypassed via pipeline. Filter fabric or hay bale filters would be placed within the excavated basin. A stand pipe or a sump would be used to minimize sedimentation in the outflow. Wattles may be used

upstream or downstream of the excavated basin and downstream of the bypass outlet. A temporary riprap apron would be placed at the pipe outlet to dissipate energy and minimize erosion.

## 5.0 GENERAL BEST MANAGEMENT PRACTICES

### 5.1 PRE-PROJECT PLANNING

During the project and environmental planning process, the Corps will assess the need for water diversion structures. If needed, environmental planning documents prepared pursuant to the National Environmental Policy Act will identify and incorporate the appropriate water diversion structures and associated best management practices. The documents will incorporate the following information as needed:

- Type of water diversion structure and general specifications such as length, width, depth, capacity and height as appropriate.

- Construction methods, materials and anticipated duration of diversion activities.

- Erosion control BMPs, including methods, materials and installation, maintenance and removal requirements.

- A map or drawing indicating the location of structures, type and location of bypass system, cofferdam height and location of downstream discharge point.

- Location of proposed upstream and downstream water quality monitoring sites.

- Structures will be located to avoid or minimize impacts to aquatic and riparian resources.

### 5.2 PROJECT IMPLEMENTATION

The following BMPs will be implemented during project implementation:

- The water diversion and work area dewatering system will be in place and functional before in-channel work is started.

- While the water diversion is in place, it will be operational 24 hours a day.

- Inspection and maintenance of the water diversion and associated erosion and sediment control BMPs will be conducted on a regular basis.

- With the exception of emergency repair work, routine maintenance activities will not be conducted during a rainfall event.

**5.3 POST-PROJECT IMPLEMENTATION**

The following BMPs will be implemented upon completion of work:

- Water diversion structures, bypass systems and erosion controls will be removed upon completion of work. Removal normally proceeds from downstream in an upstream direction.

- Earthen channels will be restored to pre-project contours and gradients.

## 6.0 COFFER DAM BEST MANAGEMENT PRACTICES

### 6.1 CONSTRUCTION

- Cofferdam construction would be adequate to prevent seepage into or from the work area.

- Cofferdams may be constructed from sand bags, concrete k-rails, sheet piles or other appropriate materials.

- Cofferdams constructed of earth or other materials subject to erosion will be covered by erosion control measures such as filter fabric, silt-fencing, sheet-piling or other appropriate materials.

- Materials used for the construction of earthen cofferdams will not incorporate contaminated sediments, clays or other materials including concrete, pavement, trash or debris.

- Concrete k-rails or sand bags would be used to the extent practicable for construction of transverse dams. Transverse cofferdams would not be made of earth or other substances subject to erosion.

- Longitudinal cofferdams in low flow channels may be constructed from alluvium excavated from the channel and compacted onsite.

### 6.2 INSPECTION AND MAINTENANCE

- Regularly inspect coffer dams to check for water seepage under the dam and general integrity of the dam.

- Fix all leaks immediately.

- If water is discharged from the work area despite the cofferdam:

- Place wattles, filter fabric, silt fencing across the flow stream downstream of the work area to remove sediment from the water.

- For higher flows, construction of a downstream de-silting basin may be required.

- Clean water intake if clogged.

**6.3 REMOVAL**

- Upon completion of work in soft-bottom channels, reintroduce water into the channel slowly so that high turbidity is avoided.

- Remove all imported construction materials.

- After removal of the cofferdam, dismantle the bypass system and restore disturbed areas to pre-construction grades.

- Flows in an earthen bottom channel may be left within the temporary low flow channel if re-introduction of flows to the work area would result in excessive discharge of sediment downstream.

**6.0 BYPASS SYSTEMS**

**6.1 OPEN CHANNEL BYPASS SYSTEMS**

- An open channel bypass will be protected from erosion or spillage of material from channel and basin banks and slopes using readily available such as filter fabric, silt fencing, straw bales, sand bags on cofferdam banks, channel banks and slopes.

- An upstream silt catchment basin may be constructed so that silt or other deleterious materials are not allowed to pass into the open channel bypass. The silt catchment basin should be monitored and cleaned/repaired on a regular basis.

**6.2 PIPELINE BYPASS SYSTEMS**

- Bypass systems with pipelines may be gravity flow or pumped as necessary.

- When using a gravity flow system, the pipeline must slope continuously downgrade and therefore may have to pass through or near the work area.

- A pumped system is required where there is no available discharge point continuously downgrade of the intake (i.e., if the pipeline cannot be routed through the work area).

- Intakes and/or excavated basins may be required for gravity flow or pump-fed bypass systems.

    - Turbulence around the intake and associated turbidity may be reduced by means of ponding water behind the cofferdam or in an excavated sump.
    - In earthen bottom channels or basins, the intake pipe end would be substantially above the bottom of the ponded water or excavated basin to avoid discharge of sediments.
    - For gravity systems, a standpipe arrangement is very effective. An intake filter can also be used to screen out sediment but can be easily clogged so is not recommended if the pump must run on a 24-hour schedule.

- Outlet protection may be incorporated at the pipe outlet to prevent generation of turbidity, erosion and scour as indicated below.

- Pump sizes may be changed as appropriate to match dry weather flows.

**6.4 SEDIMENT CONTROL ACTIVITIES**

- Work areas, channel banks or stockpile areas adjacent to the water diversion area that could be subject to erosion during storm events would be stabilized with erosion control measures as appropriate: silt fencing, straw bales, sand bags, filter fabric, coir rolls or wattles.

- In low flow channels an upstream silt basin may be constructed so that silt or other deleterious materials settle out before passing through the water diversion area.

- Erosion control methods used to prevent siltation would be monitored and cleaned/repaired regularly.

- In order to minimize downstream turbidity for returning flows filter fabric, wattles or silt fencing would be installed downstream of the work area as appropriate. Bypass flows would be introduced into the dewatered area at the lowest velocity possible to allow minimize erosion and turbidity.

- Water diversions would not be used during clean-outs of concrete-lined channels where flows are minimal (less than three inches deep) and channel widths are narrow (25 feet or less). In low-flow channels, small bulldozers or "bobcats" would proceed upstream to downstream within the channel bottom to scrape sediment, trash and debris into piles for collection. In other low flow conditions, 6-inch diameter wattles would be sufficient to contain and filter flows within a concrete-lined channel.

**6.5 OUTLET PROTECTION**

- Place effectively sized outlet protection underneath pipeline outlet of where diverted water is discharged into a soft bottom channel. Rock aprons are the most common type of outlet protection for high flows; however, erosion control fabric, wattles, or silt fencing may be installed in front of an outlet to provide additional velocity reduction.

- Energy dissipation or other protection may not be necessary if the discharge is to an existing hardened structure (culvert, riprap or concrete), to deep water or a heavily vegetated area.

## 6.6 EQUIPMENT AND VEHICLE USE

### 6.6.1 Equipment Operation

- Stationary equipment such as motors, pumps, generators and welders located within or adjacent to the channel or basin will be positioned over drip pans.

- Access to the work site via existing roads and access ramps will be shown on the project plans. If no ramps are available in the immediate area, a temporary ramp may be constructed within the flagged work area. Any temporary ramp will be removed upon completion of the project.

### 6.6.2 Equipment Maintenance During Construction

- Any equipment or vehicles driven and/or operated within or adjacent to the channel or basin should be checked and maintained daily, to check for leaks. All maintenance will occur in a designated offsite area. The designated area will include a drain pan or drop cloth and absorbent material to clean up spills.

- Fueling and equipment maintenance will be done in a designated area removed from the area of the channel or basin such that no petroleum products or other pollutants from the equipment may enter these areas via rainfall or runoff. The designated area will include a drain pan or drop cloth and absorbent materials to clean up spills.

### 6.6.3 Spill Prevention, Control, and Containment

- Prior to maintenance or repair activities, methods, materials and procedures for spill prevention, control and containment would be identified. This information will be incorporated into the contract documents. Spill containment methods should address the types of materials and equipment to be used at the site. Materials for the containment of spills (i.e., absorbent materials, silt fencing, filter fabric, coir rolls) would be identified and be available onsite prior to commencement of maintenance and/or repair activities.

- Any accidental spill of hydrocarbons or coolant that may occur within the work area will be cleaned immediately. Absorbent materials will be maintained within the work area for this purpose.

- No wet concrete product will come into contact with any flowing or standing water at any time. Areas where raw cement or grout are applied or where concrete curing or finishing operations are conducted will be separated from any ponded or diverted water flows by a cofferdam or silt-free, exclusionary fencing. All equipment involved with the concrete or grouting operations will be located within a contained area while using any slurry or concrete product. A protective berm or other structure will be in place prior to maintenance and/or repair activities.

- Any spill of the grout, concrete, concrete curing or wash water adjacent to or within the work area will be removed immediately.

Exhibit B

Potential Best Management Practices

For individual LACDA project OMRR&R activities for which CWA § 401 water quality certification may not be required, the District agrees to consider and implement BMPs to the extent appropriate, including but not limited to:

1. Stationary equipment such as motors, pumps, generators and welders located within or adjacent to the channel or basin will be positioned over drip pans.

2. Access to the work site via existing roads and access ramps will be shown on the project plans.

3. Any equipment or vehicles driven and/or operated within or adjacent to the channel or basin should be checked and maintained daily, to check for leaks. All maintenance will occur in a designated offsite area. The designated offsite area will include a drain pan or drop cloth and absorbent material to clean up spills.

4. Fueling and equipment maintenance will be done in a designated area removed from the area of the channel or basin such that no petroleum products or other pollutants from the equipment may enter these areas via rainfall or runoff. The designated area will include a drain pan or drop cloth and absorbent materials to clean up spills.

5. Prior to initiation of individual LACDA Project OMRR&R activities in waters of the United States, methods, materials and procedures for spill prevention, control and containment will be identified. This information will be incorporated into the contract documents. Spill containment methods should address the types of materials and equipment to be used at the site. Materials for the containment of spills (i.e., absorbent materials, silt fencing, filter fabric, coir rolls) will be identified and be available onsite prior to commencement of individual LACDA OMRR&R activities.

6. Any accidental spill of hydrocarbons or coolant that may occur within the work area will be cleaned immediately. Absorbent materials will be maintained within the work area for this purpose.

7. Pre-project planning shall include consideration of contingency measures to address various flow discharges, if anticipated.

8. When invasive species may be encountered, BMPs to limit the spread of invasive species shall be considered and implemented as follows:

i. The District shall follow the Regional General Permit 41 BMPs in the removal and disposal of invasive plants.

ii. All equipment, including equipment for personnel such as hand tools, survey equipment and boots, that have been deployed in an area which supports New

Zealand mud snails, shall be subject to a program of inspection and be carefully cleaned before use at an additional project site.

iii. Construction and maintenance personnel shall be instructed in invasive species control methods.

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.

10. Because water diversions are not used as BMPs for individual LACDA project OMRR&R activities in MOU Section II.C., the District will consider and implement "other BMPs" to limit increases of baseline turbidity levels caused by individual LACDA project OMRR&R activities, such as downstream check dams, clean gravel-filled or compost-filled turbidity/filter socks, or other appropriate methods. Any and all "other BMPs" will be temporary in nature and completely removed upon completion of in-stream work. In Exhibit C to the MOU, the Regional Water Board has expressly waived §401 water quality certification for "other BMPs" implemented by the District should they result in a discharge of dredged or fill material into waters of the United States.

11. The District shall conduct water quality monitoring to ensure effectiveness of "other BMPs" implemented in lieu of water diversions. If surface flows are present, upstream and downstream monitoring for the following shall be implemented:

- ☐ pH
- ☐ temperature
- ☐ dissolved oxygen
- ☐ turbidity

These constituents shall be measured at least once prior to other BMP implementation in waters of the United States and then monitored on a daily basis during the first week and then on a weekly basis, thereafter, until the in-stream work is complete. Monitoring shall take place during the period when in-stream individual LACDA OMRR&R activities are occurring. The District shall review water quality data each day water quality data is collected. Upon its request, the District shall share all monitoring data with the Regional Water Board.

Exhibit C to Memorandum of Understanding

May 8, 2017

Colonel Kirk E. Gibbs
U.S. Army Corps of Engineers
Los Angeles District
915 Wilshire Blvd.
Los Angeles, CA 90017

Dear Colonel Gibbs:

This letter concerns Exhibit B to the Memorandum of Understanding (MOU) between the California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) and the United States Army Corps of Engineers, Los Angeles District (District). Specifically, this letter concerns "other BMPs," as described in paragraph 10 of Exhibit B, that the District may implement to limit increases of turbidity levels caused by in-stream individual LACDA project OMRR&R activities conducted in accordance with Section II.C. of the MOU. Should any "other BMPs" implemented by the District pursuant to paragraph 10 of Exhibit B result in a discharge of dredged or fill material into waters of the United States, the Regional Water Board hereby waives Clean Water Act § 401 water quality certification in accordance with 33 U.S.C. §1341(a) for those specific "other BMPs" that are being implemented to protect downstream water quality.

Sincerely,

Samuel Unger

Samuel Unger, P.E.
Executive Officer

# Appendix E. Environmental Justice Analysis

## ENVIRONMENTAL JUSTICE ANALYSIS

### Introduction

The 1994 Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Population and Low-Income Populations, requires all federal agencies to conduct "programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, an activities do not have the effect of excluding persons (including populations) from participation, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color, or national origin." Section 1-101 of the Executive Order 12898 requires federal agencies to identify and address "disproportionately high and adverse human health or environmental effects" of programs on minority and low-income populations (Executive Order 1994).

CEQ identifies minority groups as Asian, American Indian and Alaskan Native, Native Hawaiian and Pacific Island, Black or African American, and Latino. CEQ further defines minority population as any group of minorities that exceed 50 percent of the existing population within an area where a minority group comprises a meaningful greater percentage of the local population than in the general population. The CEQ criterion for defining low-income population has been adapted to identify whether the population in an affected area constitutes a low-income population. An affected geographic area is considered to consist of a low-income population (i.e., below the poverty level, for purposes of this analysis) where the percentage of low-income persons: 1) is greater than 50 percent, or 2) is meaningfully greater than the low-income population percentage in the general population or other appropriate unit of geographic analysis.

### Methodology

Demographic data from the EPA's EJSCREEN, an online environmental justice screening and mapping tool, served as the source data for evaluation. EJSCREEN incorporates demographic data from the U.S. Census Bureau. Because the analysis considers disproportionate impacts, two areas must be defined to facilitate comparison between the area actually affected and a larger regional area that serves as a basis for comparison and includes the area actually affected. The larger regional area is defined as the smallest political unit that includes the affected area and is called the community of comparison. The affected area includes the project area plus an approximately 1-mile radius. The community of comparison includes the Cities of Avocado and South El Monte. Notable presence of either population would require either of the following results:

Fifty Percent Analysis: The ratio of minority or low-income population of the affected area is greater than 50%.

Meaningfully Greater Analysis: The percentage of minority or low-income population of the affected area equals to or exceeds 50 percentile relative to the community of comparison.

### Results

<u>Minority and Low-Income Populations (Fifty Percent Analysis)</u>

Minority and low-income populations within the affected area are as follows: The minority population in the affected area is 96%. The low-income population in the affected area is 47%.

| Minority Population (%) | Low-Income Population (%) |
|---|---|
| 96 | 47 |

Minority and Low-Income Populations (Meaningfully Greater Analysis)

Comparison of minority and low-income demographics of the affected area to those in the community of comparison are shown below.

The 50th percentile for minority and low-income populations are 96% and 47%, respectively. Compared to the 50th percentile values, the area of analysis for the project is equal to the 50th percentile for minority population and for low-income population.

| Locations | Minority Populations (%) | Low-Income Population (%) |
|---|---|---|
| South El Monte | 97 | 51 |
| Avocado Heights | 94 | 34 |
| Project Area of Analysis (1- mile) | 96 | 47 |
| 50th Percentile | 96 | 47 |

**Conclusions**

Presence of Minority and Low-Income Populations

For the Fifty Percent Analysis, the percentage of minority populations in the area is higher than the 50% threshold, and the percentage of low-income populations in the area is lower than the 50% threshold.

For the Meaningfully Greater Analysis both populations are equal to the 50% threshold.

Based on the above, there is a notable presence of minority and low-income populations within the area of analysis for the project.

# EJSCREEN Report (Version 2020)

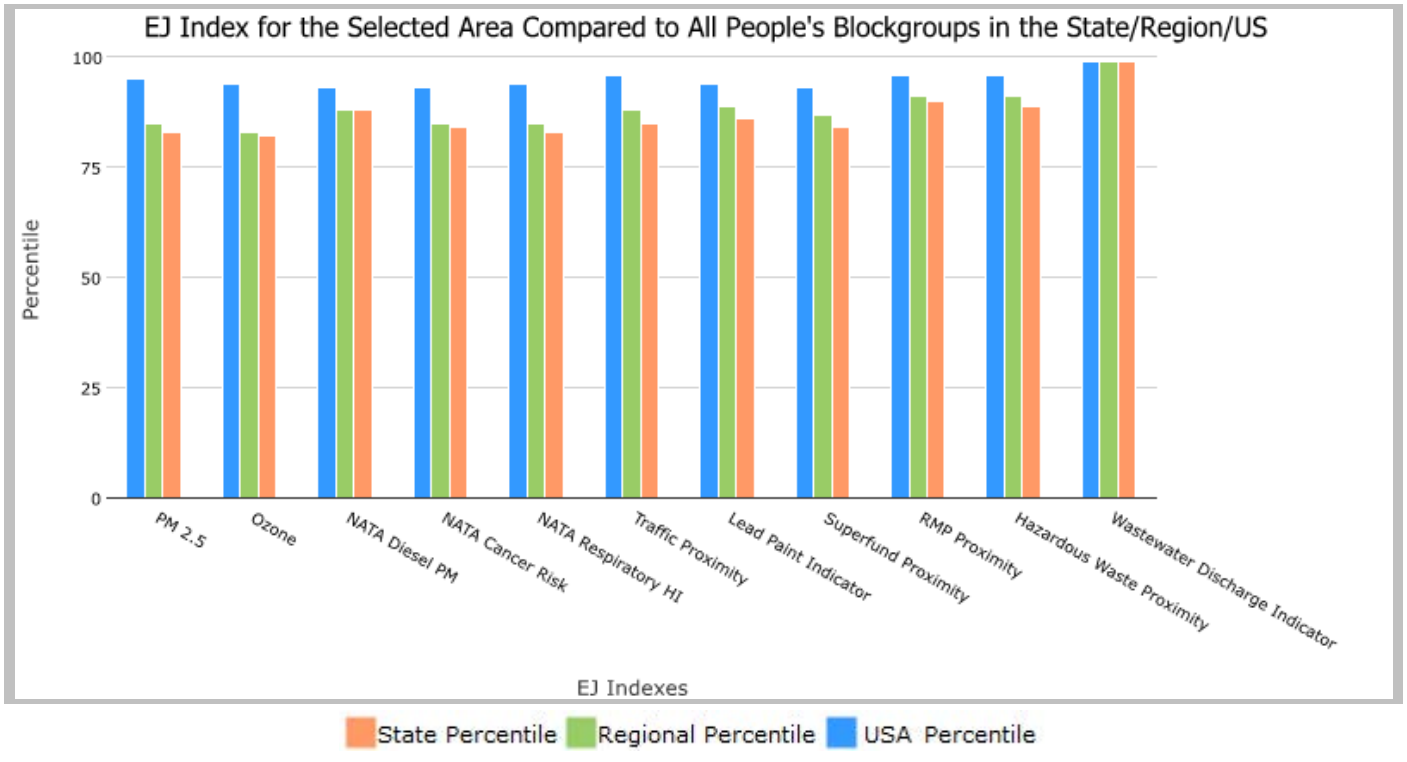
**1 mile Ring around the Area, CALIFORNIA, EPA Region 9**

**Approximate Population: 30,876**

**Input Area (sq. miles): 5.80**

**SGR-SJC**

| Selected Variables | State Percentile | EPA Region Percentile | USA Percentile |
|---|---|---|---|
| **EJ Indexes** | | | |
| EJ Index for PM2.5 | 83 | 85 | 95 |
| EJ Index for Ozone | 82 | 83 | 94 |
| EJ Index for NATA* Diesel PM | 88 | 88 | 93 |
| EJ Index for NATA* Air Toxics Cancer Risk | 84 | 85 | 93 |
| EJ Index for NATA* Respiratory Hazard Index | 83 | 85 | 94 |
| EJ Index for Traffic Proximity and Volume | 85 | 88 | 96 |
| EJ Index for Lead Paint Indicator | 86 | 89 | 94 |
| EJ Index for Superfund Proximity | 84 | 87 | 93 |
| EJ Index for RMP Proximity | 90 | 91 | 96 |
| EJ Index for Hazardous Waste Proximity | 89 | 91 | 96 |
| EJ Index for Wastewater Discharge Indicator | 99 | 99 | 99 |




This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

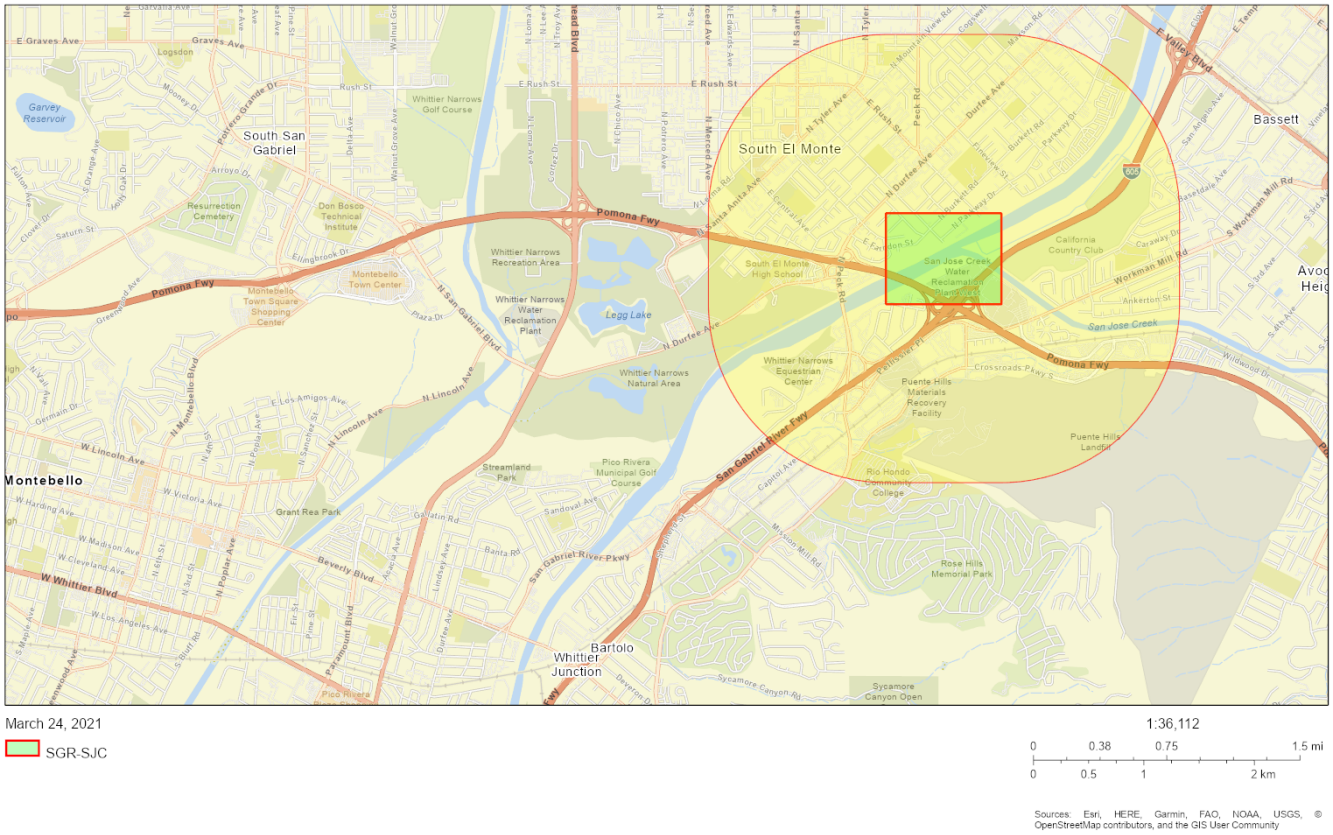
# EJSCREEN Report (Version 2020)

**1 mile Ring around the Area, CALIFORNIA, EPA Region 9**

**Approximate Population: 30,876**

**Input Area (sq. miles): 5.80**

**SGR-SJC**




| Sites reporting to EPA | |
|---|---|
| Superfund NPL | 0 |
| Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF) | 5 |

# EJSCREEN Report (Version 2020)

**1 mile Ring around the Area, CALIFORNIA, EPA Region 9**

**Approximate Population: 30,876**

**Input Area (sq. miles): 5.80**

**SGR-SJC**

| Selected Variables | Value | State Avg. | %ile in State | EPA Region Avg. | %ile in EPA Region | USA Avg. | %ile in USA |
|---|---|---|---|---|---|---|---|
| **Environmental Indicators** | | | | | | | |
| Particulate Matter (PM 2.5 in µg/m$^3$) | 12.6 | 10.6 | 84 | 9.99 | 87 | 8.55 | 97 |
| Ozone (ppb) | 55.1 | 49.2 | 68 | 50.1 | 67 | 42.9 | 93 |
| NATA* Diesel PM (µg/m$^3$) | 0.772 | 0.467 | 87 | 0.479 | 80-90th | 0.478 | 80-90th |
| NATA* Cancer Risk (lifetime risk per million) | 44 | 36 | 87 | 35 | 80-90th | 32 | 90-95th |
| NATA* Respiratory Hazard Index | 0.66 | 0.55 | 81 | 0.53 | 80-90th | 0.44 | 90-95th |
| Traffic Proximity and Volume (daily traffic count/distance to road) | 2400 | 2000 | 75 | 1700 | 79 | 750 | 92 |
| Lead Paint Indicator (% Pre-1960 Housing) | 0.49 | 0.29 | 74 | 0.24 | 78 | 0.28 | 76 |
| Superfund Proximity (site count/km distance) | 0.16 | 0.17 | 75 | 0.15 | 79 | 0.13 | 80 |
| RMP Proximity (facility count/km distance) | 2.3 | 1.1 | 86 | 0.99 | 88 | 0.74 | 92 |
| Hazardous Waste Proximity (facility count/km distance) | 11 | 6.2 | 81 | 5.3 | 85 | 5 | 93 |
| Wastewater Discharge Indicator (toxicity-weighted concentration/m distance) | 490 | 18 | 99 | 18 | 99 | 9.4 | 99 |
| **Demographic Indicators** | | | | | | | |
| Demographic Index | 71% | 47% | 84 | 46% | 85 | 36% | 90 |
| People of Color Population | 96% | 62% | 89 | 60% | 90 | 39% | 94 |
| Low Income Population | 47% | 33% | 74 | 33% | 73 | 33% | 76 |
| Linguistically Isolated Population | 18% | 9% | 82 | 8% | 85 | 4% | 92 |
| Population With Less Than High School Education | 38% | 17% | 86 | 16% | 87 | 13% | 95 |
| Population Under 5 years of age | 6% | 6% | 54 | 6% | 54 | 6% | 58 |
| Population over 64 years of age | 12% | 14% | 49 | 14% | 48 | 15% | 39 |

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

# EJSCREEN Report (Version 2020)

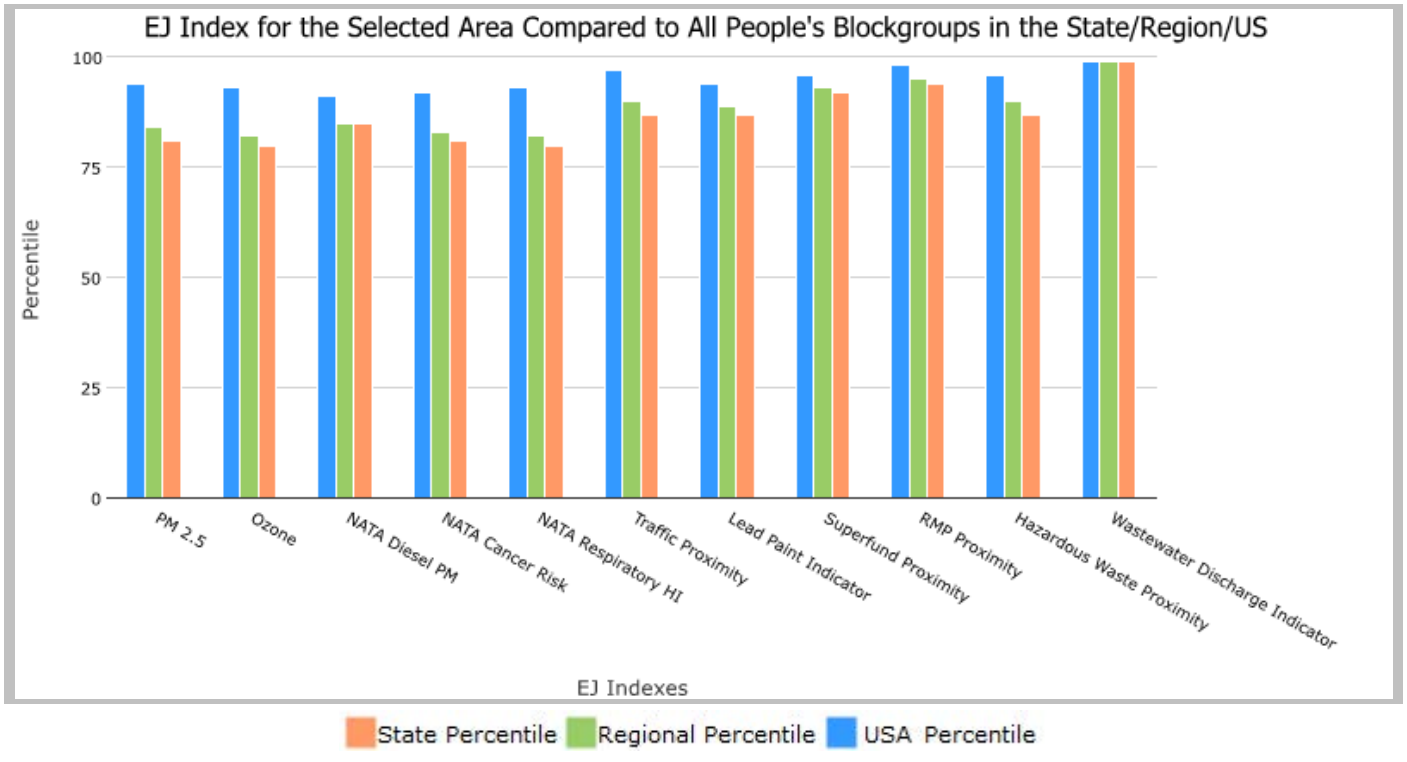
**2 miles Ring Centered at 34.035970,-117.990580, CALIFORNIA, EPA Region 9**

**Approximate Population: 67,436**

**Input Area (sq. miles): 12.56**

**Avocado Heights**

| Selected Variables | State Percentile | EPA Region Percentile | USA Percentile |
|---|---|---|---|
| **EJ Indexes** | | | |
| EJ Index for PM2.5 | 81 | 84 | 94 |
| EJ Index for Ozone | 80 | 82 | 93 |
| EJ Index for NATA* Diesel PM | 85 | 85 | 91 |
| EJ Index for NATA* Air Toxics Cancer Risk | 81 | 83 | 92 |
| EJ Index for NATA* Respiratory Hazard Index | 80 | 82 | 93 |
| EJ Index for Traffic Proximity and Volume | 87 | 90 | 97 |
| EJ Index for Lead Paint Indicator | 87 | 89 | 94 |
| EJ Index for Superfund Proximity | 92 | 93 | 96 |
| EJ Index for RMP Proximity | 94 | 95 | 98 |
| EJ Index for Hazardous Waste Proximity | 87 | 90 | 96 |
| EJ Index for Wastewater Discharge Indicator | 99 | 99 | 99 |




This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

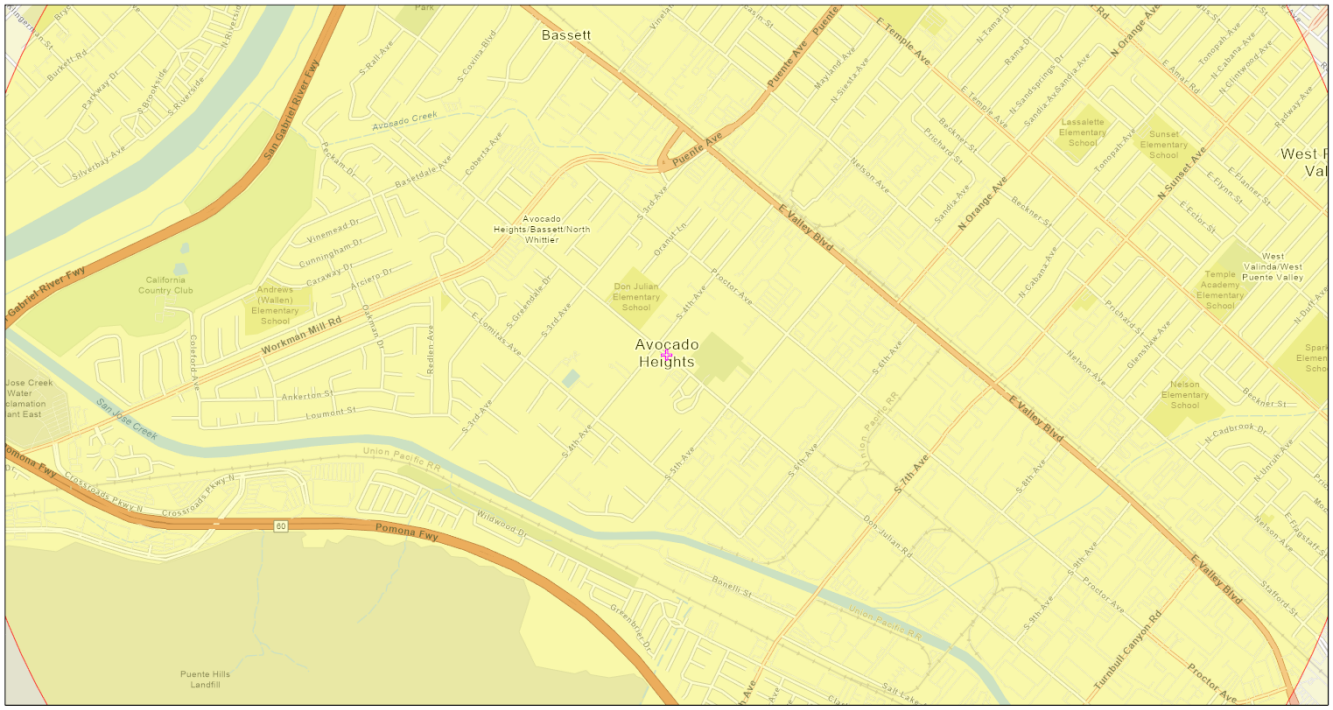
# EJSCREEN Report (Version 2020)

**2 miles Ring Centered at 34.035970,-117.990580, CALIFORNIA, EPA Region 9**

**Approximate Population: 67,436**

**Input Area (sq. miles): 12.56**

**Avocado Heights**




| Sites reporting to EPA | |
|---|---|
| Superfund NPL | 0 |
| Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF) | 15 |

# EJSCREEN Report (Version 2020)

**2 miles Ring Centered at 34.035970,-117.990580, CALIFORNIA, EPA Region 9**

**Approximate Population: 67,436**

**Input Area (sq. miles): 12.56**

**Avocado Heights**

| Selected Variables | Value | State Avg. | %ile in State | EPA Region Avg. | %ile in EPA Region | USA Avg. | %ile in USA |
|---|---|---|---|---|---|---|---|
| **Environmental Indicators** | | | | | | | |
| Particulate Matter (PM 2.5 in µg/m$^3$) | 12.6 | 10.6 | 84 | 9.99 | 87 | 8.55 | 98 |
| Ozone (ppb) | 56.3 | 49.2 | 71 | 50.1 | 73 | 42.9 | 95 |
| NATA* Diesel PM (µg/m$^3$) | 0.687 | 0.467 | 79 | 0.479 | 70-80th | 0.478 | 80-90th |
| NATA* Cancer Risk (lifetime risk per million) | 42 | 36 | 83 | 35 | 80-90th | 32 | 90-95th |
| NATA* Respiratory Hazard Index | 0.63 | 0.55 | 76 | 0.53 | 70-80th | 0.44 | 90-95th |
| Traffic Proximity and Volume (daily traffic count/distance to road) | 2800 | 2000 | 78 | 1700 | 82 | 750 | 93 |
| Lead Paint Indicator (% Pre-1960 Housing) | 0.54 | 0.29 | 77 | 0.24 | 81 | 0.28 | 79 |
| Superfund Proximity (site count/km distance) | 0.36 | 0.17 | 91 | 0.15 | 93 | 0.13 | 93 |
| RMP Proximity (facility count/km distance) | 4.3 | 1.1 | 95 | 0.99 | 96 | 0.74 | 98 |
| Hazardous Waste Proximity (facility count/km distance) | 11 | 6.2 | 81 | 5.3 | 85 | 5 | 93 |
| Wastewater Discharge Indicator (toxicity-weighted concentration/m distance) | 410 | 18 | 99 | 18 | 99 | 9.4 | 99 |
| **Demographic Indicators** | | | | | | | |
| Demographic Index | 64% | 47% | 75 | 46% | 76 | 36% | 85 |
| People of Color Population | 94% | 62% | 86 | 60% | 88 | 39% | 93 |
| Low Income Population | 34% | 33% | 58 | 33% | 58 | 33% | 59 |
| Linguistically Isolated Population | 15% | 9% | 76 | 8% | 78 | 4% | 89 |
| Population With Less Than High School Education | 31% | 17% | 79 | 16% | 81 | 13% | 91 |
| Population Under 5 years of age | 6% | 6% | 44 | 6% | 44 | 6% | 47 |
| Population over 64 years of age | 14% | 14% | 60 | 14% | 58 | 15% | 49 |

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

# EJSCREEN Report (Version 2020)

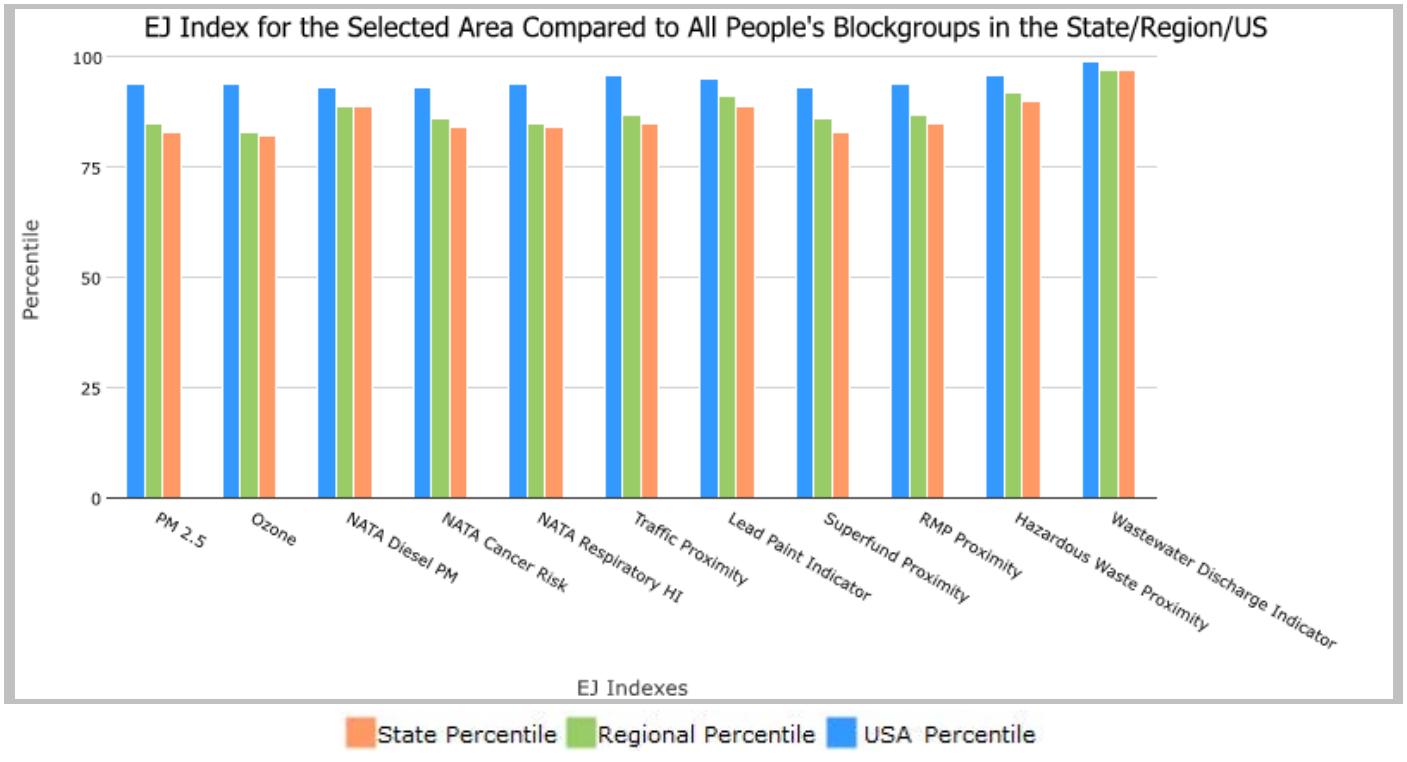
**1 mile Ring Centered at 34.046500,-118.043190, CALIFORNIA, EPA Region 9**

**Approximate Population: 26,532**

**Input Area (sq. miles): 3.14**

**South El Monte**

| Selected Variables | State Percentile | EPA Region Percentile | USA Percentile |
|---|---|---|---|
| **EJ Indexes** | | | |
| EJ Index for PM2.5 | 83 | 85 | 94 |
| EJ Index for Ozone | 82 | 83 | 94 |
| EJ Index for NATA* Diesel PM | 89 | 89 | 93 |
| EJ Index for NATA* Air Toxics Cancer Risk | 84 | 86 | 93 |
| EJ Index for NATA* Respiratory Hazard Index | 84 | 85 | 94 |
| EJ Index for Traffic Proximity and Volume | 85 | 87 | 96 |
| EJ Index for Lead Paint Indicator | 89 | 91 | 95 |
| EJ Index for Superfund Proximity | 83 | 86 | 93 |
| EJ Index for RMP Proximity | 85 | 87 | 94 |
| EJ Index for Hazardous Waste Proximity | 90 | 92 | 96 |
| EJ Index for Wastewater Discharge Indicator | 97 | 97 | 99 |




This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

# EJSCREEN Report (Version 2020)

**1 mile Ring Centered at 34.046500,-118.043190, CALIFORNIA, EPA Region 9**

**Approximate Population: 26,532**

**Input Area (sq. miles): 3.14**

**South El Monte**


| Sites reporting to EPA | |
|---|---|
| Superfund NPL | 0 |
| Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF) | 7 |

# EJSCREEN Report (Version 2020)

**1 mile Ring Centered at 34.046500,-118.043190, CALIFORNIA, EPA Region 9**

**Approximate Population: 26,532**

**Input Area (sq. miles): 3.14**

**South El Monte**

| Selected Variables | Value | State Avg. | %ile in State | EPA Region Avg. | %ile in EPA Region | USA Avg. | %ile in USA |
|---|---|---|---|---|---|---|---|
| **Environmental Indicators** | | | | | | | |
| Particulate Matter (PM 2.5 in µg/m$^3$) | 12.6 | 10.6 | 83 | 9.99 | 86 | 8.55 | 97 |
| Ozone (ppb) | 54.9 | 49.2 | 68 | 50.1 | 66 | 42.9 | 93 |
| NATA* Diesel PM (µg/m$^3$) | 0.79 | 0.467 | 88 | 0.479 | 80-90th | 0.478 | 80-90th |
| NATA* Cancer Risk (lifetime risk per million) | 44 | 36 | 88 | 35 | 80-90th | 32 | 90-95th |
| NATA* Respiratory Hazard Index | 0.67 | 0.55 | 83 | 0.53 | 80-90th | 0.44 | 90-95th |
| Traffic Proximity and Volume (daily traffic count/distance to road) | 2500 | 2000 | 76 | 1700 | 80 | 750 | 92 |
| Lead Paint Indicator (% Pre-1960 Housing) | 0.57 | 0.29 | 79 | 0.24 | 83 | 0.28 | 81 |
| Superfund Proximity (site count/km distance) | 0.16 | 0.17 | 75 | 0.15 | 79 | 0.13 | 80 |
| RMP Proximity (facility count/km distance) | 1.6 | 1.1 | 79 | 0.99 | 82 | 0.74 | 87 |
| Hazardous Waste Proximity (facility count/km distance) | 12 | 6.2 | 84 | 5.3 | 87 | 5 | 94 |
| Wastewater Discharge Indicator (toxicity-weighted concentration/m distance) | 8.6 | 18 | 95 | 18 | 96 | 9.4 | 97 |
| **Demographic Indicators** | | | | | | | |
| Demographic Index | 74% | 47% | 87 | 46% | 88 | 36% | 92 |
| People of Color Population | 97% | 62% | 92 | 60% | 93 | 39% | 95 |
| Low Income Population | 51% | 33% | 78 | 33% | 78 | 33% | 80 |
| Linguistically Isolated Population | 22% | 9% | 88 | 8% | 89 | 4% | 94 |
| Population With Less Than High School Education | 44% | 17% | 90 | 16% | 92 | 13% | 97 |
| Population Under 5 years of age | 7% | 6% | 57 | 6% | 57 | 6% | 60 |
| Population over 64 years of age | 12% | 14% | 49 | 14% | 48 | 15% | 38 |

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

# Appendix F. Air Quality Evaluation, CalEEMod 2016.3.2

# San Gabriel & San Jose Creek O&M

**Los Angeles-South Coast County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| User Defined Recreational | 0.00 | User Defined Unit | 29.00 | 0.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 33 |
| **Climate Zone** | 9 | | | **Operational Year** | 2021 |
| **Utility Company** | | | | | |
| **CO2 Intensity (lb/MWhr)** | 0 | **CH4 Intensity (lb/MWhr)** | 0 | **N2O Intensity (lb/MWhr)** | 0 |

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

Project Characteristics - Utility N/A

Land Use - population N/A

Construction Phase - 40 work days per year

Off-road Equipment - See project list for dozers

Grading -

Trips and VMT - 70 trips per day x 40 = 2,800 total haul trips

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_EF_Parking | 100 | 0 |
| tblConstructionPhase | NumDays | 45.00 | 40.00 |

| | | | |
|---|---|---|---|
| tblConsumerProducts | ROG_EF | 1.98E-05 | 2.14E-05 |
| tblFleetMix | HHD | 0.03 | 0.00 |
| tblFleetMix | LDA | 0.55 | 0.00 |
| tblFleetMix | LDT1 | 0.05 | 0.00 |
| tblFleetMix | LDT2 | 0.20 | 0.00 |
| tblFleetMix | LHD1 | 0.02 | 0.00 |
| tblFleetMix | LHD2 | 6.1430e-003 | 0.00 |
| tblFleetMix | MCY | 5.0780e-003 | 0.00 |
| tblFleetMix | MDV | 0.12 | 0.00 |
| tblFleetMix | MH | 8.9100e-004 | 0.00 |
| tblFleetMix | MHD | 0.02 | 0.00 |
| tblFleetMix | OBUS | 2.4790e-003 | 0.00 |
| tblFleetMix | SBUS | 6.8200e-004 | 0.00 |
| tblFleetMix | UBUS | 2.2700e-003 | 0.00 |
| tblGrading | AcresOfGrading | 40.00 | 0.00 |
| tblGrading | MaterialExported | 0.00 | 43,333.00 |
| tblGrading | MaterialImported | 0.00 | 3,000.00 |
| tblLandUse | LotAcreage | 0.00 | 29.00 |
| tblOffRoadEquipment | HorsePower | 247.00 | 255.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 4.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 3.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 35.00 |
| tblTripsAndVMT | HaulingTripNumber | 5,792.00 | 2,800.00 |
| tblTripsAndVMT | VendorTripLength | 6.90 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 40.00 | 30.00 |

## 2.0 Emissions Summary

## 2.1 Overall Construction

### Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2021 | 0.1515 | 1.9852 | 1.1816 | 3.8300e-003 | 0.4126 | 0.0598 | 0.4724 | 0.2123 | 0.0551 | 0.2674 | 0.0000 | 355.9763 | 355.9763 | 0.0677 | 0.0000 | 357.6690 |
| **Maximum** | **0.1515** | **1.9852** | **1.1816** | **3.8300e-003** | **0.4126** | **0.0598** | **0.4724** | **0.2123** | **0.0551** | **0.2674** | **0.0000** | **355.9763** | **355.9763** | **0.0677** | **0.0000** | **357.6690** |

### Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2021 | 0.1515 | 1.9852 | 1.1816 | 3.8300e-003 | 0.4126 | 0.0598 | 0.4724 | 0.2123 | 0.0551 | 0.2674 | 0.0000 | 355.9761 | 355.9761 | 0.0677 | 0.0000 | 357.6688 |
| **Maximum** | **0.1515** | **1.9852** | **1.1816** | **3.8300e-003** | **0.4126** | **0.0598** | **0.4724** | **0.2123** | **0.0551** | **0.2674** | **0.0000** | **355.9761** | **355.9761** | **0.0677** | **0.0000** | **357.6688** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| 1 | 8-31-2021 | 9-30-2021 | 1.1701 | 1.1701 |
| | | Highest | 1.1701 | 1.1701 |

## 2.2 Overall Operational

### Unmitigated Operational

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

## 2.2 Overall Operational

**Mitigated Operational**

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

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Grading | Grading | 8/31/2021 | 10/25/2021 | 5 | 40 | |

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

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

**Acres of Paving: 0**

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

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Grading | Crawler Tractors | 2 | 8.00 | 212 | 0.43 |
| Grading | Excavators | 4 | 8.00 | 158 | 0.38 |
| Grading | Off-Highway Trucks | 1 | 4.00 | 402 | 0.38 |
| Grading | Rubber Tired Dozers | 3 | 8.00 | 255 | 0.40 |
| Grading | Rubber Tired Loaders | 4 | 8.00 | 203 | 0.36 |
| Grading | Skid Steer Loaders | 2 | 8.00 | 65 | 0.37 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 16 | 30.00 | 0.00 | 2,800.00 | 14.70 | 0.00 | 35.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Grading - 2021

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.3640 | 0.0000 | 0.3640 | 0.1990 | 0.0000 | 0.1990 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.1300 | 1.4013 | 1.0149 | 1.9800e-003 | | 0.0578 | 0.0578 | | 0.0531 | 0.0531 | 0.0000 | 173.5827 | 173.5827 | 0.0561 | 0.0000 | 174.9862 |
| **Total** | **0.1300** | **1.4013** | **1.0149** | **1.9800e-003** | **0.3640** | **0.0578** | **0.4217** | **0.1990** | **0.0531** | **0.2522** | **0.0000** | **173.5827** | **173.5827** | **0.0561** | **0.0000** | **174.9862** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0189 | 0.5819 | 0.1441 | 1.7900e-003 | 0.0421 | 1.9900e-003 | 0.0441 | 0.0116 | 1.9000e-003 | 0.0135 | 0.0000 | 176.4601 | 176.4601 | 0.0114 | 0.0000 | 176.7450 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.5800e-003 | 2.0100e-003 | 0.0227 | 7.0000e-005 | 6.5700e-003 | 5.0000e-005 | 6.6300e-003 | 1.7500e-003 | 5.0000e-005 | 1.8000e-003 | 0.0000 | 5.9335 | 5.9335 | 1.7000e-004 | 0.0000 | 5.9379 |
| **Total** | **0.0215** | **0.5839** | **0.1668** | **1.8600e-003** | **0.0487** | **2.0400e-003** | **0.0507** | **0.0133** | **1.9500e-003** | **0.0153** | **0.0000** | **182.3936** | **182.3936** | **0.0116** | **0.0000** | **182.6828** |

## 3.2 Grading - 2021

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.3640 | 0.0000 | 0.3640 | 0.1990 | 0.0000 | 0.1990 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.1300 | 1.4013 | 1.0149 | 1.9800e-003 | | 0.0578 | 0.0578 | | 0.0531 | 0.0531 | 0.0000 | 173.5825 | 173.5825 | 0.0561 | 0.0000 | 174.9860 |
| **Total** | **0.1300** | **1.4013** | **1.0149** | **1.9800e-003** | **0.3640** | **0.0578** | **0.4217** | **0.1990** | **0.0531** | **0.2522** | **0.0000** | **173.5825** | **173.5825** | **0.0561** | **0.0000** | **174.9860** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0189 | 0.5819 | 0.1441 | 1.7900e-003 | 0.0421 | 1.9900e-003 | 0.0441 | 0.0116 | 1.9000e-003 | 0.0135 | 0.0000 | 176.4601 | 176.4601 | 0.0114 | 0.0000 | 176.7450 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.5800e-003 | 2.0100e-003 | 0.0227 | 7.0000e-005 | 6.5700e-003 | 5.0000e-005 | 6.6300e-003 | 1.7500e-003 | 5.0000e-005 | 1.8000e-003 | 0.0000 | 5.9335 | 5.9335 | 1.7000e-004 | 0.0000 | 5.9379 |
| **Total** | **0.0215** | **0.5839** | **0.1668** | **1.8600e-003** | **0.0487** | **2.0400e-003** | **0.0507** | **0.0133** | **1.9500e-003** | **0.0153** | **0.0000** | **182.3936** | **182.3936** | **0.0116** | **0.0000** | **182.6828** |

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

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

## 4.2 Trip Summary Information

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

## 4.3 Trip Type Information

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

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| User Defined Recreational | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

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

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

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

### Mitigated

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

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| User Defined Recreational | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| User Defined Recreational | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

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

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

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

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| User Defined Recreational | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| User Defined Recreational | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

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

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| User Defined Recreational | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| User Defined Recreational | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

### Fire Pumps and Emergency Generators

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

### Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|---|---|---|---|---|---|

### User Defined Equipment

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

# Appendix G. Public Notice

# PUBLIC

# NOTICE

**U.S. ARMY CORPS OF ENGINEERS**
**LOS ANGELES DISTRICT**

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

**LOCATION:** The project area is in the cities of South El Monte and Avocado Heights, Los Angeles County, approximately 11 miles east of downtown Los Angeles, 17 miles upstream of the Pacific Ocean. The Pomona Freeway (State Route 60 [SR-60]) and the San Gabriel River Freeway (Interstate 605 [I-605]) intersect south of the project area.

**PROPOSED PROJECT:** To prevent further erosion of the San Gabriel River 2b (SGR2b) levee and, thus, prevent potential failure, the proposed project will consist of removing approximately 127,000 cubic yards of accumulated excess sediment and 11.2 acres of vegetation as part of the operation and maintenance of the channel. 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 (SR60). The maintenance footprint is approximately 17.8 acres.

The depth of the sediment ranges from 3 to 10 feet. No alterations or modifications of structural elements of the engineered channel will occur.

**BACKGROUND AND AUTHORITY:** During a routine maintenance inspection in April 2017, significant toe erosion was discovered on the right bank of the SGR2b levee 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 and directed flows at the levee embankment. The section of levee was previously repaired and fortified with derrick stone. Despite the placed stone, the impingement persists, and the levee's embankment is actively being scoured, undermined and is at risk of failing.

The SGR2b levee is part of the larger Los Angeles County Drainage Area (LACDA). The LACDA is a comprehensive flood-risk management plan, and its 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.

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 the Los Angeles County Drainage Area (LACDA) and the improvement of the San Gabriel River for the protection of metropolitan Los Angeles County, California.

# NOTICE

# PUBLIC

**NATIONAL ENVIRONMENTAL POLICY ACT COMPLIANCE:**

The Environmental Assessment (EA) is necessary to document and evaluate the impacts of sediment and vegetation removal on environmental resources, and to document conditions in the project area.

**Biological Resources**: The Proposed Action, including future maintenance, would include design aspects and implementation of BMPs and measures that would address potential effects related to temporary habitat loss, excessive noise, increased human presence, fugitive dust emissions, and habitat movement. Permanent and temporary impacts to habitat would be offset by approximately 18 acres of vegetation management consisting of invasive/non-native species removal. The Proposed Action would not result in a substantial loss to the population of any native fish, wildlife, or vegetation, wildlife movement or in overall diversity of the ecosystem.

**Least Bell's Vireo (FE, SE)**
Least Bell's vireo (vireo) are known to currently maintain seven (7) territories within the project area. Of the seven (7) known territories occurring within the project area, two lie within the permanent construction footprint, five (5) lie within the Proposed Action. This would result in potential permanent displacement of two territories and temporary displacement of five (5) territories. This is assuming that vireo nesting beyond 200 feet from the project would continue successfully. 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.

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. Of the two (2) known territories occurring within the project area, none are within the permanent construction footprint, one is within the Proposed Action. 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 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 enhancement and maintenance. 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 permanent construction area would be enhanced after construction is completed.

# PUBLIC NOTICE

**Cultural Resources**: 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 San Gabriel Fiver Flood Control System (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. Coordination and consultation with the California State Historic Preservation Office and consulting parties is in progress and concurrence is expected by June 14, 2021.

**Water Resources:** The Proposed Action will require the removal of approximately 127,000 cy of accumulated sediment, placement of 2,000 cy of fill for access and the removal of 11.2 acres of vegetation within the San Gabriel River channel resulting the discharge of dredge or fill material within Waters of the United States (WOTUS). 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 the 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 also provided in this EA.

Per 33 CFR 337.1(b), any person who has an interest which may be affected by the disposal of this dredged material may request a public hearing. The request must be submitted in writing to the district engineer within the comment period of this notice and must clearly set forth the interest which may be affected and the manner in which the interest may be affected by this activity.

**SUBMITTING COMMENTS:** The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; and other interested parties. Comments will be accepted from June 9, 2021 to July 9, 2021.

Comments should be sent electronically to: emily.a.lester@usace.army.mil

Alternatively, comments may be mailed to:

U.S. Army Corps of Engineers
Los Angeles District
Planning Division
Attn: Emily Lester
915 Wilshire Blvd., Suite 930
Los Angeles, CA 90017

**U.S. ARMY CORPS OF ENGINEERS – LOS ANGELES DISTRICT**