



BIOLOGICAL RESOURCES REPORT

SIXTH STREET PARK, ARTS, RIVER & CONNECTIVITY IMPROVEMENTS PROJECT

CITY OF LOS ANGELES, CALIFORNIA

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INTRODUCTION

The Sixth Street Viaduct Division of the City of Los Angeles (City) Department of Public Works (DPW), Bureau of Engineering (BOE), is proposing the Sixth Street Park, Arts, River & Connectivity Improvements (PARC) Project. The PARC Project includes the creation of public recreational space on approximately 13 acres underneath and adjacent to the upcoming Sixth Street Viaduct (Viaduct) in the City of Los Angeles (Project Site) (see **Attachment A - Plans**). The City is the Lead Agency for the proposed Project under the California Environmental Quality Act (CEQA). Biological reports for the Viaduct project and the PARC project plans were reviewed to support this document (see **Attachment B – Previous Studies**).

PROJECT DESCRIPTION

The City proposes to create public recreational space in areas underneath and adjacent to the Viaduct, between Mateo Street to the west and the United States Highway 101 (U.S. 101) to the east, in the City of Los Angeles (see **Attachment C – Maps and Attachment D – Aerials and Photographs**). The project is divided into the following sections: (1) West Park, which is located in the Central City North Community Plan; (2) Arts Plaza and River Gateway, which is located in Central City North Community Plan and along the west and east banks of the Los Angeles River (LA River); and (3) East Park.

The Project would be divided into two phases for the construction activities. Phase I would consist of constructing the General Park Elements as well as East Park, West Park, Arts Plaza, and River Gateway. Phase II would consist of installing reinforced concrete planted terraces along the banks of the LA River.

Phase I

Phase I would include construction of typical park site furnishings and amenities, pedestrian paths, bicycle paths, park roadways, service roads, street lighting, public art sculpture, interpretive exhibits, utility connections, utility work, retaining walls, landscaping, stormwater infrastructure improvements, dog play areas, parking areas, one building for public restrooms, Arts Plaza performance area, and reconstruction and rehabilitation of existing pedestrian/vehicular LA River Access Tunnel entrance to the River.

Phase II

Phase II would include installation of reinforced concrete planted terraces up to approximately 20,000 square feet on the west and east banks of the LA River. Terracing would be up to approximately 10 feet wide and located along the upper banks of the LA River. The terraces would be anchored into the existing slope liner and would not require excavation into the LA River. The landscaping plant list would consist of species included in the Los Angeles River Master Plan Landscaping Guidelines and Plant Palette, which is consistent with the City's River Improvement Overlay (RIO) Ordinance (Ordinance Number 183145). Existing access to the LA River would be maintained.

REGULATORY REQUIREMENTS

Clean Water Act

The USACE regulates the placement of dredged and fill material into waters of the U.S., including wetlands, under Section 404 of the Clean Water Act (CWA). No discharge of dredged or fill material into jurisdictional features is permitted unless authorized under an USACE Nationwide Permit or Individual

Permit. For all work subject to an USACE Section 404 permit, project proponents must obtain a Water Quality Certification from the applicable RWQCB under CWA Section 401 stating that the project would comply with applicable water quality regulations.

Waters of the United States

The USACE Regulatory Program regulates activities within federal wetlands and waters of the U.S. pursuant to Section 404 of the CWA. Waters of the U.S. are divided into several categories as defined by the Code of Federal Regulations (CFR). Under the CFR (CFR 33 Section 328.3), waters of the U.S. include, but are not limited to:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce (including sightseeing or hunting), including all waters subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands; and
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats; sand flats; wetlands; sloughs; prairie potholes; wet meadows; playa lakes; or natural ponds where the use, degradation, or destruction of which could affect interstate or foreign commerce. This includes any such waters which are or could be used by interstate or foreign travelers for recreational or other purposes, and from which fish or shellfish could be taken and sold in interstate or foreign commerce, or which are used or could be used for industrial purposes in interstate commerce.

In streams and rivers where adjacent wetlands are absent, the USACE jurisdiction extends to the ordinary high-water mark (OHWM). The OHWM is defined as “the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas” (33 CFR Section 328.3[e]). If the OHWM is not readily distinguishable, the USACE jurisdiction within streams extends to the “bankfull discharge” elevation, which is the level at which water begins to leave the channel and move into the floodplain (Rosgen 1996). This level is reached at a discharge which generally has a recurrence interval of approximately 1.5 to two years on the annual flood series (Leopold, 1994).

Federal wetlands are transitional areas between well-drained upland habitats and permanently flooded (deepwater) aquatic habitats. The USACE and the EPA define wetlands as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR Section 328.3[b]).

Waters of the State

The term “waters of the state,” under jurisdiction of the RWQCB, is defined by California Water Code as “any surface water or groundwater, including saline waters, within the boundaries of the state” (California Water Code Section 13050(e)).

Currently, the Regional Water Quality Control Board (RWQCB) relies upon the definition used in the CWA to define wetlands. However, the State Water Resources Control Board (SWRCB) is in the process of

redefining wetlands as part of their proposed *Procedures for Discharges of Dredged or Fill Material to Waters of the State* (SWRCB), 2016). The new definition, which is currently not adopted, is “an area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area’s vegetation is dominated by hydrophytes or the area lacks vegetation.” This report uses the current definition of wetlands.

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) was established in 1973 to provide a framework to conserve and protect endangered and threatened species and their habitat. Section 10 of the FESA allows for the “incidental take” of endangered and threatened wildlife species by non-federal entities. Incidental take is defined by the FESA as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. The term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Section 10(a)(1)(B) of the FESA authorizes the taking of federally listed wildlife or fish through an incidental take permit. Section 10(a)(2)(A) of the FESA requires an applicant for an incidental take permit to submit a conservation plan that specifies, among other things, the impacts likely to result from the taking of the species, and the measures the permit applicant will take to minimize and mitigate impacts on the species.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (50 CFR Part 10 and Part 21) protects migratory birds, their occupied nests, and their eggs from disturbance and/or destruction. “Migratory birds” include all nongame, wild birds found in the U.S. except for the house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), and rock pigeon (*Columba livia*).

Executive Order 13112

Executive Order 13112 directs all federal agencies to refrain from authorizing, funding, or carrying out actions or projects that may spread invasive species. This order further directs federal agencies to prevent the introduction of invasive species, control and monitor existing invasive species populations, restore native species to invaded ecosystems, research and develop prevention and control methods for invasive species, and promote public education on invasive species.

Porter-Cologne Act

The RWQCB also asserts authority over waters of the state under the Porter-Cologne Act, which establishes a regulatory program to protect water quality and to protect beneficial uses of state waters. The Porter-Cologne Act empowers the RWQCB to formulate and adopt a Water Quality Control Plan that designates beneficial uses and establishes such water quality objectives that in its judgment will ensure reasonable protection of beneficial uses. Each RWQCB establishes water quality objectives that will ensure the reasonable protection of beneficial uses and the prevention of water quality degradation. Dredge or fill activities with the potential to affect water quality in these waters must comply with Waste Discharge Requirements (WDR) issued by the RWQCB. Waters of the state are defined by the Porter-Cologne Act as any surface or subsurface water or groundwater, including saline waters, within the boundaries of the

state.

California Fish and Game Code

Section 1602 of the California Fish and Game Code governs construction activities that substantially divert or obstruct natural stream flow or substantially change the bed, channel, or bank of any river, stream, or lake under the jurisdiction of California Department of Fish and Wildlife (CDFW). Under the California Fish and Game Code, the limits of CDFW's jurisdiction within streams and other drainages extends from the top of the stream bank to the top of the opposite bank, to the outer drip line in areas containing riparian vegetation, and/or within the 100-year floodplain of a stream or river system containing fish or wildlife resources. Streams are defined in the California Code of Regulations (CCR) (14 CCR Section 1.72) as "a body of water that follows at least periodically or intermittently through a bed or channel having banks and that support fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." Under Section 1602, a Streambed Alteration Agreement must be issued by the CDFW prior to the initiation of construction activities that may substantially divert or obstruct the natural flow of any river, stream, or lake; substantially change or use any material from the bed, channel, or bank, of any river, stream, or lake; or deposit debris, waste, or other materials that could pass into any river, stream, or lake under CDFW's jurisdiction.

The CDFW has jurisdictional authority over waters of the state, including wetlands. In practice, CDFW follows the United States Fish and Wildlife Service (USFWS) definition of wetlands in Cowardin's *Classification of Wetlands and Deepwater Habitats of the United States*: "Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: 1) at least periodically, the land supports hydrophytes; 2) the substrate is predominantly undrained hydric soil; and 3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year" (Cowardin, et al. 1979).

Section 2126 of the California Fish and Game Code states that it is unlawful for any person to take any mammal that are identified within Section 2118, including all species of bats.

Sections 3503, 3513, and 3800 of the California Fish and Game Code prohibit the take of birds protected under the MBTA, and protects their occupied nests. In addition, Section 3503.5 of the California Fish and Game Code prohibits the take of any birds in the order Falconiformes or Strigiformes (birds-of-prey), and protects their occupied nests. State-listed species and those petitioned for listing by the CDFW are fully protected under the California Endangered Species Act (CESA). Under Section 2080.1 of the California Fish and Game Code, if a project would result in take of a species that is both federally and state listed, a consistency determination with the findings of the FESA determination is required. Under Section 2081, if a project would result in take of a species that is state-only listed as threatened or endangered, then an incidental take permit from the CDFW is required.

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code prohibit the take or possession of 37 fully protected bird, mammal, reptile, amphibian, and fish species. Each of the statutes states that no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to "take" the species, and states that no previously issued permit or licenses for take of the

species “shall have any force or effect” for authorizing take or possession. The CDFW will not authorize incidental take of fully protected species when activities are proposed in areas inhabited by those species.

EXISTING BIOLOGICAL SETTING

The majority of the project area is currently a construction site for the Sixth Street Viaduct Replacement Project (Viaduct Replacement Project), which began in 2016 (see **Attachment C - Maps**), and primarily consists of fencing around an area of exposed soil with staged construction equipment and materials. The site is mostly devoid of vegetation except for a few non-native species that have survived in and around the construction activities (see **Attachment D – Aerials and Photographs**). A site visit was completed on November 7, 2017, to assess current conditions.

Land uses along the north and south sides of the PARC Project are predominantly industrial and commercial. There are Railroad corridors adjacent to the east and west banks of the LA River within the project area. Metropolitan Transportation Authority (Metro), Southern California Regional Rail Authority (SCRRA), Burlington Northern Santa Fe (BNSF), Amtrak, and Union Pacific Railroad (UPRR) own and/or operate railroad corridors within the project area. An existing tunnel (LA River Access Tunnel) is located under the railroad tracks west of the LA River. Los Angeles Department of Water and Power’s (LADWP) Transmission Right of Way (TLRW) used this tunnel to access the LA River from Santa Fe Avenue.

Vegetation

There are non-native weedy species in and around construction activity and disturbed areas, including tree tobacco (*Nicotiana glauca*), Mexican fan palm (*Washingtonia robusta*), crimson fountain grass (*Pennisetum setaceum*), and other herbaceous plants and grasses. There are no natural vegetation communities in the project area. The vegetation surrounding the project area is mostly comprised of ornamental and weedy species.

Wildlife

Several bat and bird species were observed in the Fourth Street Bridge, Seventh Street Bridge, and Viaduct during 2015 surveys. These species include, but are not limited to, Yuma myotis (*Myotis yumanensis*), Mexican free-tailed bat (*Tadarida brasiliensis*), barn swallow (*Hirundo rustica*), cliffswallow (*Petrochelidon pyrrhonota*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), red-tailed hawk (*Buteo jamaicensis*), black phoebe (*Sayornis nigricans*), and rock pigeon. However, because of the level of disturbance and extremely limited amount of vegetated areas, the biological diversity of animals within the project area and surrounding areas is low.

Special-Status Species

A list of special-status species with the potential to be in the project area was obtained using the California Natural Diversity Database (CNDDDB) (CDFW CNDDDB 2019), from the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California (CNPS 2019), and the United States Fish and Wildlife Service Information for Planning and Conservation System (USFWS 2019) (see **Attachment D**). Range and habitat information was used to determine the likelihood for these species to be within the project area. Because the entire project area is an active construction site and surrounded by industrial and commercial activities, special-status plant species are not anticipated to be in the project area.

Special-status wildlife species including Yuma myotis, great egret (*Ardea alba*), and snowy egret (*Egretta thula*) have potential to be in the project area.

Jurisdictional Areas

The concrete-lined LA River is considered a navigable water under jurisdiction of the United States Army Corps of Engineer (USACE) Los Angeles District as waters of the United States (U.S.). The river is also under jurisdiction of the California Department of Fish and Wildlife (CDFW) and Regional Water Quality Control Board (RWQCB) as waters of the state. The CDFW jurisdiction includes the river from top of bank to top of bank; there is no riparian corridor associated with the river in the project area, and there are no existing wetlands.

PROJECT IMPACTS

Project activities would include the use of various equipment (e.g., pavement breakers, dozers, motor graders, rollers, trench diggers, and drill rigs). Excavation, grading, and other ground-disturbing activities would have the potential to affect wildlife and plant species, if they were to be present during project construction. Specifically, bats roosting on the Viaduct or in trees, birds roosting or nesting in the Viaduct, trees, or vegetation, or plants growing within or adjacent to the project area could be directly or indirectly impacted. BMPs and avoidance and minimization measures are recommended below to avoid or reduce the potential for impacts on wildlife and plant species.

RECOMMENDED BEST MANAGEMENT PRACTICES

The following BMPs are recommended to avoid or minimize project impacts on biological resources:

- All trash and construction debris would be removed from the River construction areas on a daily basis. All water quality BMP materials would be properly maintained during project construction, and removed upon completion of construction activities. After completion of proposed construction activities, all construction equipment and materials would be removed from the project area, and the project area would be returned to pre-project conditions.
- Appropriate hazardous material BMPs would be implemented to reduce the potential for chemical spills or contaminant releases into the River, including any non-stormwater discharge.
- All equipment refueling and maintenance would be conducted in the staging area, which would be confined to the proposed Project Site in areas outside of the LA River.
- Pre-construction wildlife surveys would be completed by a qualified biologist no more than 48 hours prior to clearing, grubbing, or other construction activities to determine the presence/absence of wildlife species, including special-status species, within 100 feet of the construction area. Special attention would be focused on any existing burrowing, roosting, and nesting habitat within the project area. Surveys would be repeated if construction activities are suspended for five days or more. If any wildlife species are identified, appropriate BMPs would be developed and implemented to reduce potential impacts on these species, in consultation with regulatory agencies where appropriate.
- All trash and construction debris would be removed from the LA River on a daily basis.

- If vegetation trimming or clearing is conducted during the nesting season (typically February 15 through September 15), nesting bird surveys would be completed by a qualified biologist within 300 feet of potential bird-nesting areas and 500 feet of potential raptor-nesting areas no more than 48 hours prior to trimming/removal activities to determine if nesting birds are within the affected vegetation. Surveys would be repeated if trimming or removal activities are suspended for five days or more.
- For construction required during the bird nesting season for birds protected under the MBTA and California Fish and Game Code Sections, nesting bird surveys would be completed no more than 48 hours prior to construction activities to determine if nesting birds/raptors or active nests are within 300 feet (500 feet for potential raptor nests) of the project area. Surveys would be repeated if construction activities are suspended for five days or more.
- Recommended Avoidance and Minimization Measures

The following avoidance and minimization measures are recommended to avoid or minimize project impacts on bats:

- No work for the proposed Project would be conducted on or under the Fourth Street Bridge or Seventh Street Bridge structures.
- The LA Access Tunnel would be surveyed by a qualified biologist to assess the presence of bats or potential bat-roosting habitat. If bats or bat-roosting in the tunnel are identified, then during the non-breeding and active season (typically October), bats would be safely evicted, to the extent feasible, under the direction of a qualified biologist. Once it has been determined that all roosting bats have been safely evicted from roosting cavities, exclusionary devices would be installed and maintained where appropriate to prevent bats from roosting in these cavities prior to construction.
- In the event that a maternal colony of bats is found, no work would be conducted within 100 feet of the maternal roosting site until the maternal season is over or the bats have left the site, or as otherwise directed by a qualified biologist. The site would be designated as a sensitive area and protected as such until the bats have left the site. No activities would be authorized adjacent to the roosting site. Combustion equipment, such as generators, pumps, and vehicles, would not to be parked nor operated under or adjacent to the roosting site. Construction personnel would not be authorized to enter areas beneath the colony, especially during the evening exodus.
- Work on existing structures for the proposed project (e.g. the LA River Access Tunnel), or within 100 feet of the Sixth Street Viaduct, would be conducted outside of the bat maternity season (typically April-September), if feasible.
- In the event that all bats are not able to be excluded from affected roosting habitat, a qualified biologist would monitor LA River Access Tunnel alterations and tree removals. If bats are disturbed, work would be safely suspended until all bats leave the vicinity of the LA River Access Tunnel on their own, or alternative measures can be identified under the direction of a qualified biologist. Work would resume only once the bats have left the site and/or approval to resume work is given by a qualified biologist.

ANTICIPATED REGULATORY PERMITS

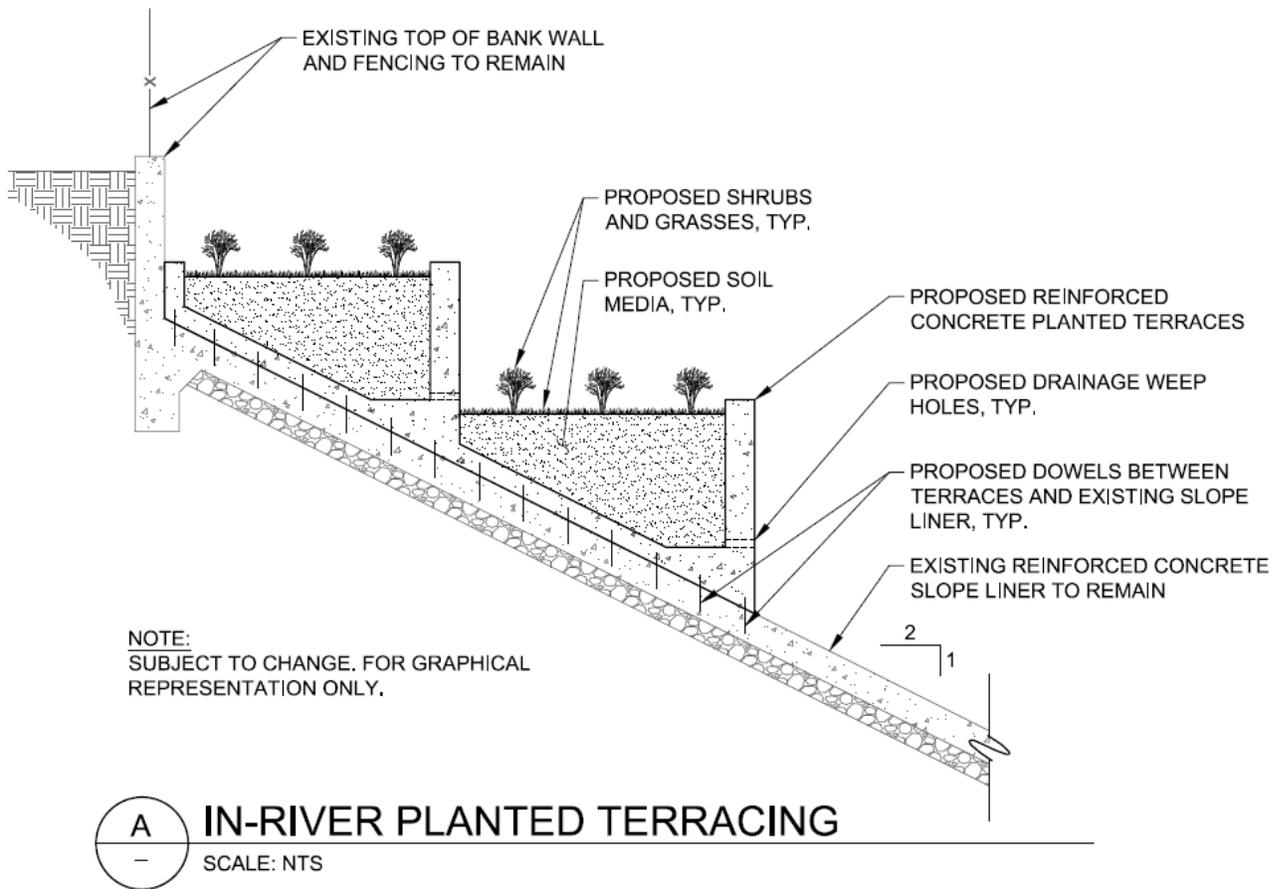
The project would result in permanent impacts on waters of the and state; therefore, the need for a WDR from RWQCB and California Fish and Game Code Section 1602 Streambed Alteration Agreement are anticipated.

REFERENCES

- CDFW CNDDDB. 2019. *RareFind 5 Query for Hollywood, Los Angeles, Inglewood, and South Gate Quads*. February 18. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>.
- CNPS. 2019. *Inventory of Rare and Endangered Plants*. February 18. <http://www.rareplants.cnps.org/simple.html>.
- Cowardin, Lewis M, Virginia Carter, C Francis Golet, and T Edward LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. Washington, D.C.: U.S. Department of Interior - Fish and Wildlife Service.
- Rosgen, David. 1996. *Applied River Morphology*.
- USFWS. 2019. *Information for Planning and Consultation*. February 18. <https://ecos.fws.gov/ipac/>.

ATTACHMENT A
PLANS

Figure 2-5: River Channel Design Concept



2.5.3 Impervious Surface Areas

The proposed Project would remove approximately 2.1 acres of impervious surfaces, which includes any remaining asphalt or concrete pavement within the Project Site and the removal of existing roadway pavement and sidewalk for the street improvements. The proposed Project would result in a net increase of impervious surfaces due to the construction of hardscaping, sports courts, buildings, playgrounds, and other public amenities. When including the impervious surface area from the upcoming Viaduct overhead, the net increase in impervious surfaces as a result of the proposed Project would be approximately 1.4 acres. With implementation of the proposed Project, the Project Site would consist of approximately 8.9 acres (71%) of impervious surfaces (including the Viaduct overhead) and up to approximately 4.1 acres (29%) of pervious surfaces.

ATTACHMENT B
PREVIOUS STUDIES



SIXTH STREET VIADUCT REPLACEMENT PROJECT

Bat and Nesting Bird Survey Report

CITY OF LOS ANGELES, LOS ANGELES COUNTY

June 2015

SIXTH STREET VIADUCT REPLACEMENT PROJECT

Bat and Nesting Bird Survey Report

CITY OF LOS ANGELES, LOS ANGELES COUNTY

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1.0 INTRODUCTION

The City of Los Angeles (City) and California Department of Transportation (Caltrans) propose to replace the Sixth Street Viaduct (viaduct) in the City of Los Angeles (Los Angeles), Los Angeles County (project) (see **Figure 1** and **Figure 2**). The viaduct structure includes a bridge over the Los Angeles River (City Bridge No. 53C-1880) and an overcrossing that spans United States Highway 101 (U.S. 101) (Caltrans Bridge No. 53-0595). Because bats and birds are known to use bridges over the Los Angeles River for roosting and nesting, bat and nesting bird surveys were included in the Final Environmental Impact Report dated October 2011, and were requested by California Department of Fish and Wildlife (CDFW) as part of the Section 1602 Streambed Alteration Agreement. Bats are protected under the California Fish and Game Code, and nesting birds are protected by the Migratory Bird Treaty Act (MBTA). The contents of the report were discussed at an onsite meeting and site assessment on April 15, 2015 with Kelly Schmoker from the CDFW, and representatives from CH2MHill, the City, Skanska Stacey and Witbeck Inc., and GPA Consulting (GPA).

1.1 Project Setting

Constructed in 1932, the viaduct is an engineering landmark in Los Angeles. The viaduct is the longest of 14 historic structures crossing the Los Angeles River, and was determined eligible for inclusion in the National Register of Historic Places (NRHP) during a 1986 Caltrans bridge survey. Located in a highly urbanized area just east of downtown Los Angeles (see **Figure 1** and **Figure 2**), the viaduct serves as a transportation link between the Los Angeles Arts District and the neighborhood of Boyle Heights.

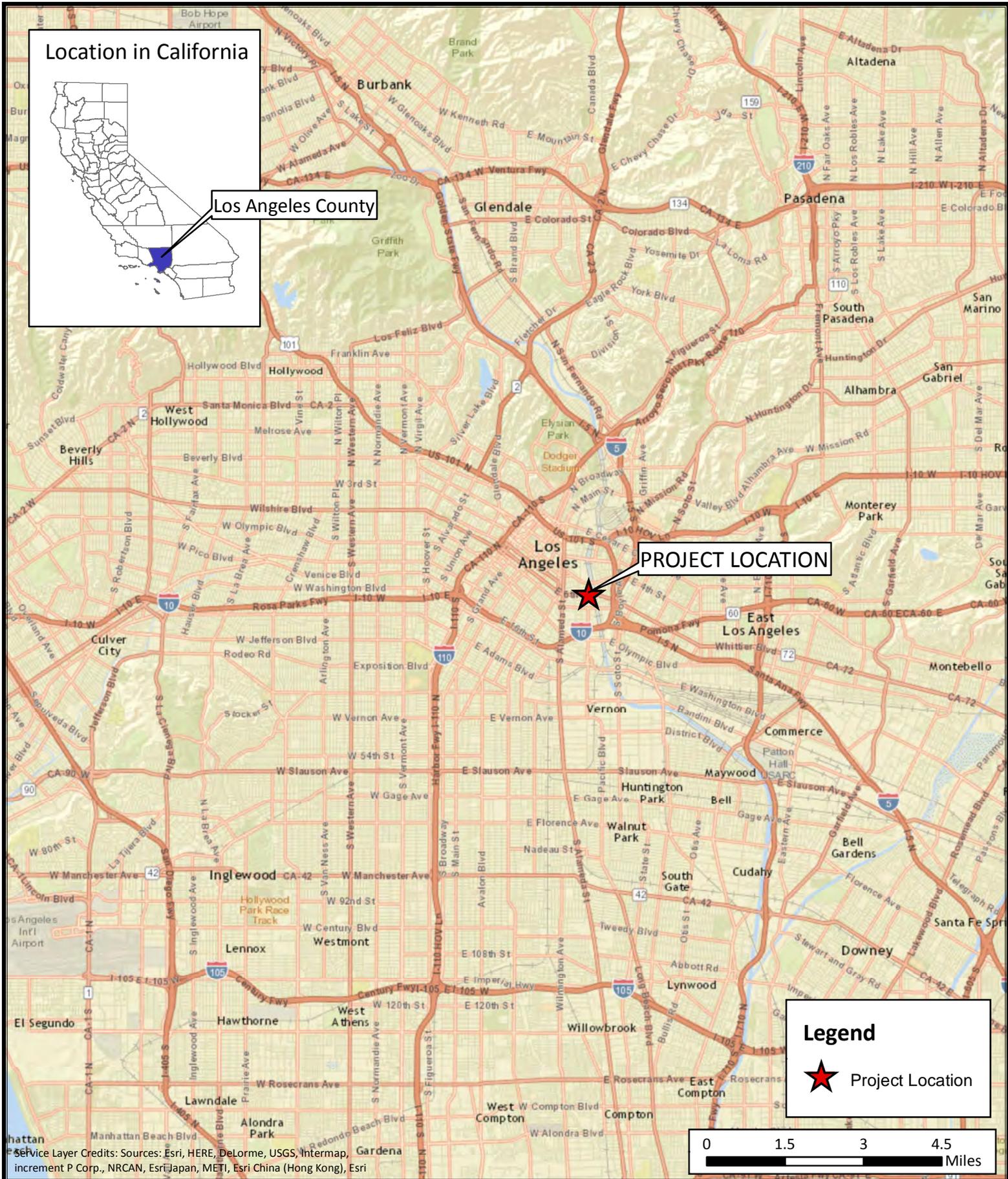
The viaduct has an overall length of approximately 3,600 feet and extends from east to west across the Los Angeles River, multiple railroad tracks, U.S. 101, and several local streets. The viaduct roadway is 46 feet wide with four lanes, including two 11-foot wide inside traffic lanes and two 12-foot wide outside traffic lanes. There are no shoulders, but there are sidewalks of varying widths on both sides.

Twenty years after the viaduct was constructed, the cement supports began to disintegrate from a chemical reaction known as alkali-silica reaction, which has resulted in substantial deterioration of the structure. Restoration has been attempted, but has not been successful. In 2004, a seismic vulnerability study concluded that the viaduct is vulnerable to failure during a major seismic event. In addition, the viaduct also has geometric design and safety deficiencies.

1.2 Project Description

Because the viaduct's condition is declining and repair is unfeasible, the City has proposed to demolish the existing viaduct and replace it with a new structure. The replacement structure would be constructed in the same general location, but would be built along a new vertical alignment (height) and would have a different architectural design with multiple arches. The cross section of the new bridge would meet modified secondary highway standards as required by the City of Los Angeles Department of Transportation (LADOT).

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Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri



**FIGURE 1. REGIONAL LOCATION
6th Street Viaduct Replacement Project**





Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan (METI), Esri China (Hong Kong), Esri



FIGURE 2. PROJECT LOCATION
6th Street Viaduct Replacement Project



The new viaduct would have a maximum width of 108 feet. The roadway would have a maximum width of 68 feet (curb-to-curb) and would consist of two 11-foot-wide lanes in each direction, a median with a maximum width of 10 feet, and outside shoulders with a maximum width of seven feet, which would accommodate a bicycle lane. The new viaduct would also include sidewalks on both sides of the bridge. Because the new structure would be wider than the existing structure, the viaduct footprint would extend further to the north, but would remain the same on the south side, with the exception of the segment over the Los Angeles River, which would be shifted slightly to the south to improve the horizontal curve radius and provide improved safety and stopping sight distances. Other new viaduct features include:

- Bike/pedestrian ramps and stairs on both sides of the bridge deck to the area below the viaduct to allow for maximum bike/pedestrian connectivity;
- Designated open space on both sides of the river to promote community cohesion;
- Soccer field and other recreational and pedestrian amenities, such as community gathering and public performance space, on the east side of the river; and
- Modification of the river access way to provide connectivity to the planned Los Angeles River downtown corridor bike trail.

2.0 SURVEY METHODS

2.1 Purpose of Surveys

Daytime surveys for bat habitat and nesting birds, and evening bat emergence surveys, were included in the project Mitigation Monitoring Reporting Record (MMRR) and required by CDFW as part of the Section 1602 Streambed Alteration Agreement process. The purpose of the surveys was to determine:

- Whether birds were nesting on the structure, and if so species, number of active nests, and location of nests;
- Location of potential bat habitat on the viaduct; and
- Whether bats were roosting on the viaduct, and if so location of roosts, species of bats, and type of roost (individual or maternal roosts).

2.2 Preliminary Site Surveys

GPA performed preliminary surveys and site assessment on April 15 and April 28, 2015 to observe viaduct characteristics and potential access restrictions. The surveys and assessment were performed on foot by GPA biologist Stan C. Glowacki from accessible areas beneath the viaduct from the west end of the viaduct between Mateo Street and Mesquit Street and the east end of the viaduct between Mission and Clarence Streets, including the Los Angeles River corridor.

The viaduct was accessed from public roads, freight yards, and industrial areas. Most areas beneath the viaduct were accessible and were surveyed on foot using binoculars or from a man-lift using un-aided vision. Areas beneath the viaduct that were not directly accessible included the railroad right of way on both sides of the river channel and the U.S. 101 right of way; however, these areas were surveyed using binoculars from adjacent areas.

2.3 Daytime Bat Habitat and Nesting Bird Surveys

Initial daytime site surveys of the viaduct structure were performed by GPA biologist Stan C. Glowacki using a man-lift with a lift operator. Multiple surveys over four days were performed on the underside of the viaduct between the west end of the viaduct and the east end of the viaduct. The entire viaduct was surveyed from a man-lift, in close proximity to the structure with the exception of the areas beneath the Los Angeles River, railroad tracks, and US. 101. These areas were surveyed from the ground with unaided vision and binoculars.

During the daytime surveys, the underside and sides of the viaduct structure were visually surveyed for roosting birds and nesting birds. Active nests, and bird activities that could indicate active nests (e.g. birds leaving or entering nests, birds carrying nesting material, and birds feeding young), were noted. Bird species observed, and locations of active nests on the viaduct, were recorded and photographed.

During the daytime surveys, the underside and sides of the viaduct structure were surveyed for potential bat-roosting habitat, including the interior of expansion joints, bridge joint compartments, various cracks and other openings, and swallow nests. These areas were examined closely using a high-powered flashlight. The locations of potential bat roosting habitat were recorded and photographs of potential bat roosting habitat were taken.

2.4 Evening Bat Emergence Surveys

Evening bat emergence surveys were performed on the segments of the viaduct structure where potential bat roosting habitat was identified during daytime surveys. Emergence surveys were performed by a team of five to eight surveyors over five evenings in May 2015. The first survey was conducted on May 6, 2015 west of the Los Angeles River between Santa Fe Avenue and the railroad tracks. On May 18, May 19, and May 20, 2015, surveys were conducted east of the Los Angeles River between the railroad tracks and the U.S. 101. The final survey was performed on May 26, 2015 within the Los Angeles River corridor.

For each survey, the team of surveyors was stationed beneath areas of the viaduct where bat roosting habitat was observed. One or two surveyors were stationed beneath each expansion joint below the bridge deck, depending on whether the expansion joint was accessible from one or both sides of the bridge piers, the presence of cracks on the edges of the viaduct, and presence of swallow nests. The team was spread out over a distance of approximately 300 to 500 feet of the viaduct during each survey, depending on access, the section of the viaduct being surveyed, and the number of expansion joints surveyed. Each biologist was equipped with an acoustic bat detector (AnaBat™, Pettersson D240x, or Wildlife Acoustics™ EM3+) that recorded bat echolocation calls. Each survey began at approximately sunset and lasted until approximately one hour after sunset when the sky became completely dark.

Following each survey, individual surveyor results, including the number of bats observed/recorded, time of observations, and whether bats were visually confirmed to be exiting the viaduct structure or other locations were recorded. After each survey, results were logged by bat specialist Stephanie Remington. Ms. Remington also performed an analysis of the recordings for each survey to identify echolocation call types and bat species detected during the evening surveys.

3.0 RESULTS

3.1 Preliminary Site Surveys

The viaduct is a solid structure made with concrete girders and metal arches. The viaduct is as high as 60 feet above the ground within the river corridor and east of the river (see **Appendix A, Photo 1** and **Photo 2**). Ongoing deterioration of the viaduct concrete from the Alkali-silica reaction has resulted in numerous cracks on the structure, most of which are less than 0.25 inch wide and have been sealed to slow the deterioration (see **Appendix A, Photo 3**). Expansion joints extend from the bridge deck to the lower girders and pier supports (see **Appendix A, Photo 4** and **Photo 5**), and there are multiple cracks along the edges of the structure that are wider than 0.75 inch) (see **Appendix A, Photo 6**).

3.2 Bat Roosting Habitat

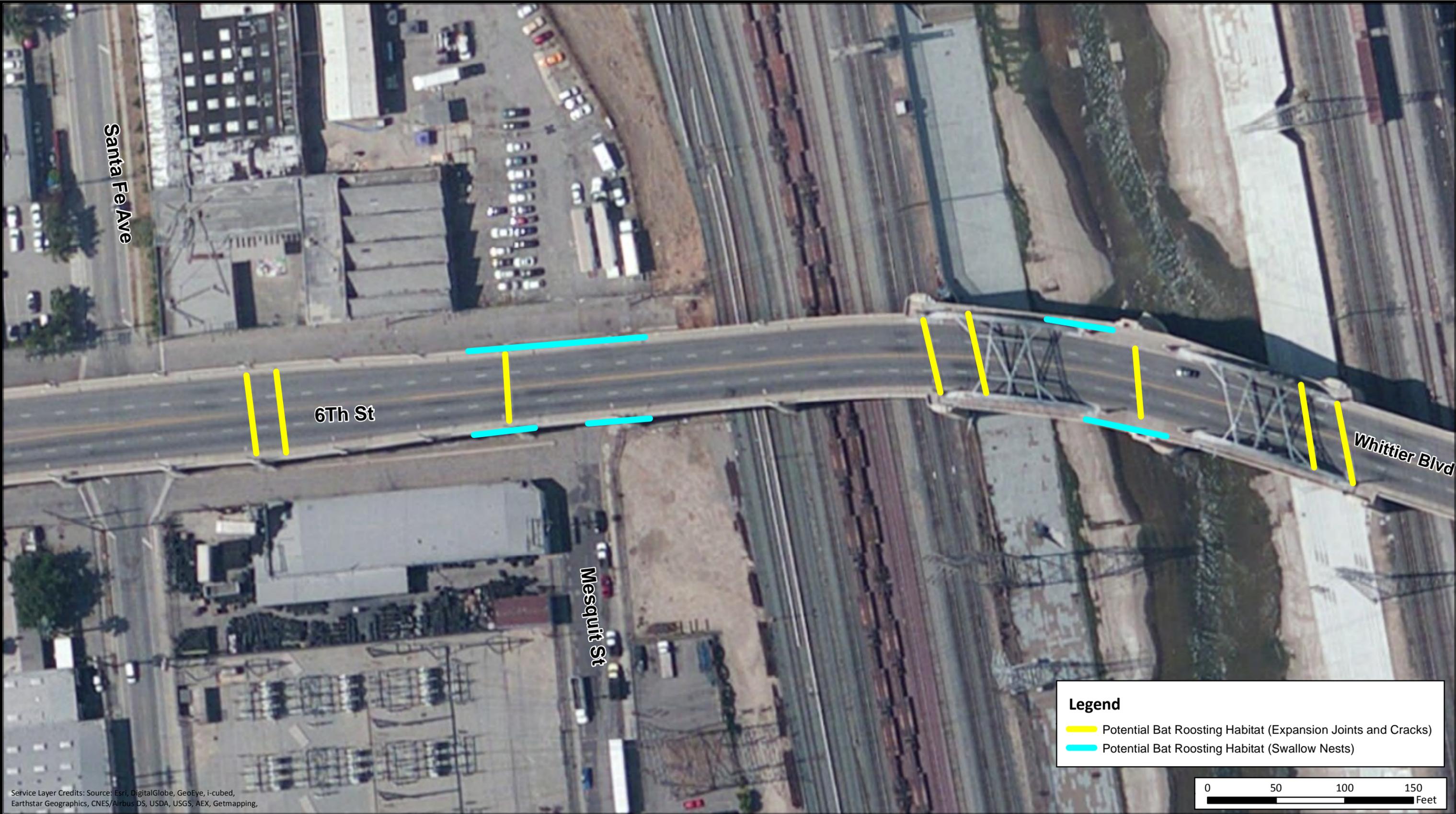
Suitable bat roosting habitat was identified in 16 expansion joints between Santa Fe Avenue and Clarence Street and in the central bridge pier over the Los Angeles River. Rubber foam filling placed in the expansion joints when the viaduct was built has deteriorated and is falling out in multiple locations; therefore, these joints are now open from the bottom and are wide enough for bats to enter and roost (see **Appendix A, Photo 7** and **Photo 8**). In addition, there are cracks along the edges of the structure wide enough to provide additional roosting habitat for bats (see **Appendix A, Photo 6**). Cracks suitable for bat roosting were identified in several locations between Santa Fe Avenue and Clarence Street (see **Figure 3, Figure 4, and Figure 5**).

The edges of the bridge overhang and create places that are suitable for swallow nests. Swallow nests may also be used by bats when the nests have been abandoned; they will use nests adjacent to nests occupied by swallows, but will not share the same nest. While most of the swallow nests appeared to be occupied by swallows during surveys, it is possible that some nests were empty and could be used by bats as daytime roosts. The expansion joints, cracks, and openings on the bridge are likely suitable as both daytime and nighttime roosting of bats, and other areas beneath the bridge could provide night roosting habitat. Night roosting behavior was not included as part of these surveys.

3.3 Nesting Birds

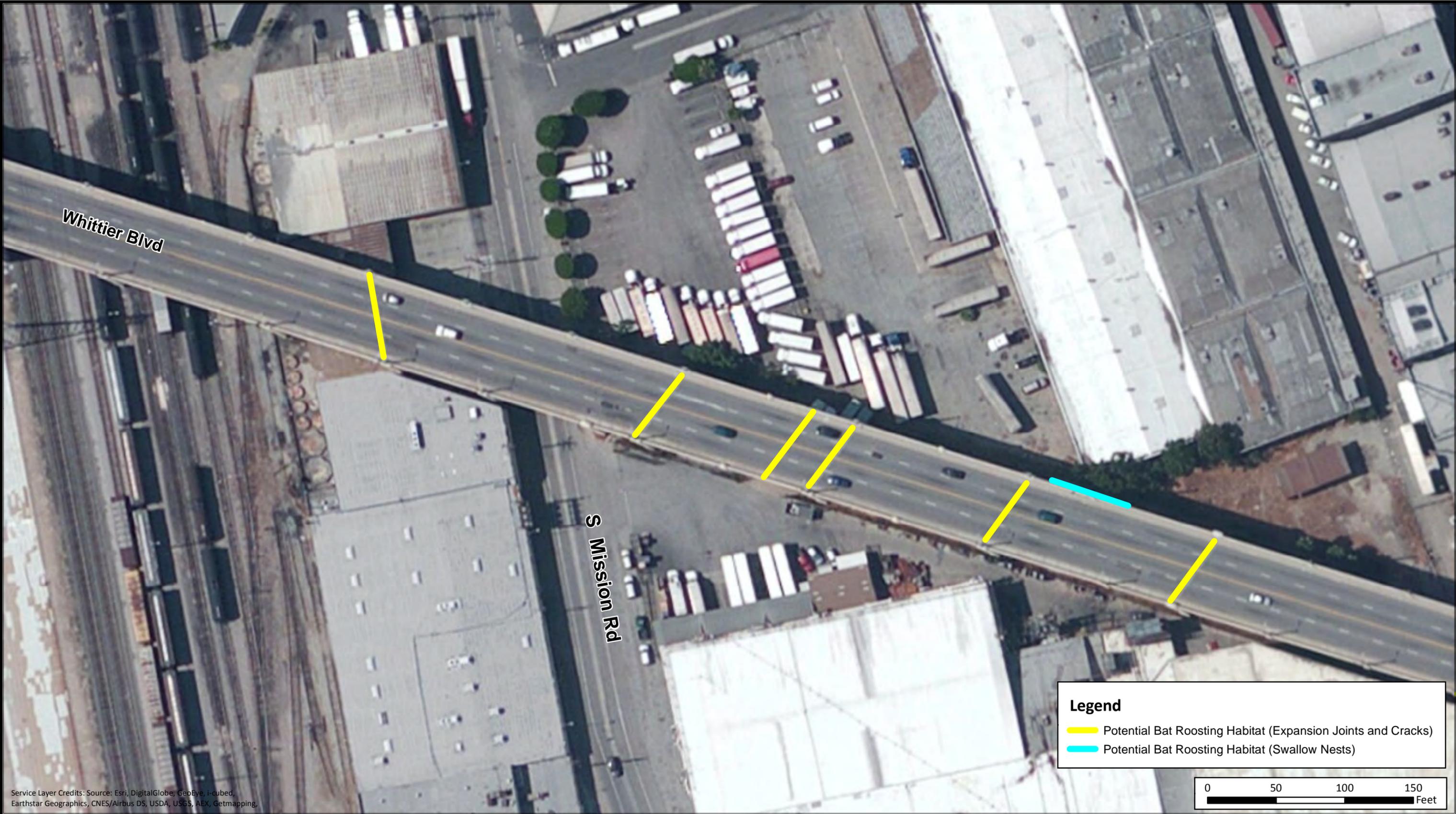
Five bird species were observed nesting on the viaduct, including barn swallows (*Hirundo rustica*), cliff swallows (*Petrochelidon pyrrhonota*), American crows (*Corvus brachyrhynchos*), American ravens (*Corvus corax*), and rock pigeons (*Columba livia*). The edges of the bridge overhang and create places that are suitable for swallow nests. Thirty-nine swallow nests were observed on the north side of the viaduct between Santa Fe Avenue and the central viaduct pier within the Los Angeles River channel (see **Photo 9** and **Photo 10**), and most of these were determined to be active during daytime surveys (see **Figure 6, Figure 7, and Figure 8**). Fifteen swallow nests were observed on the south side of the viaduct between Santa Fe Avenue and the central viaduct pier within the Los Angeles River channel, and most were determined to be active during daytime surveys. Four crow and raven nests were observed, all of which were on the eastern segment of the viaduct near Anderson Street. Pigeons were observed nesting along the entire length of the viaduct.

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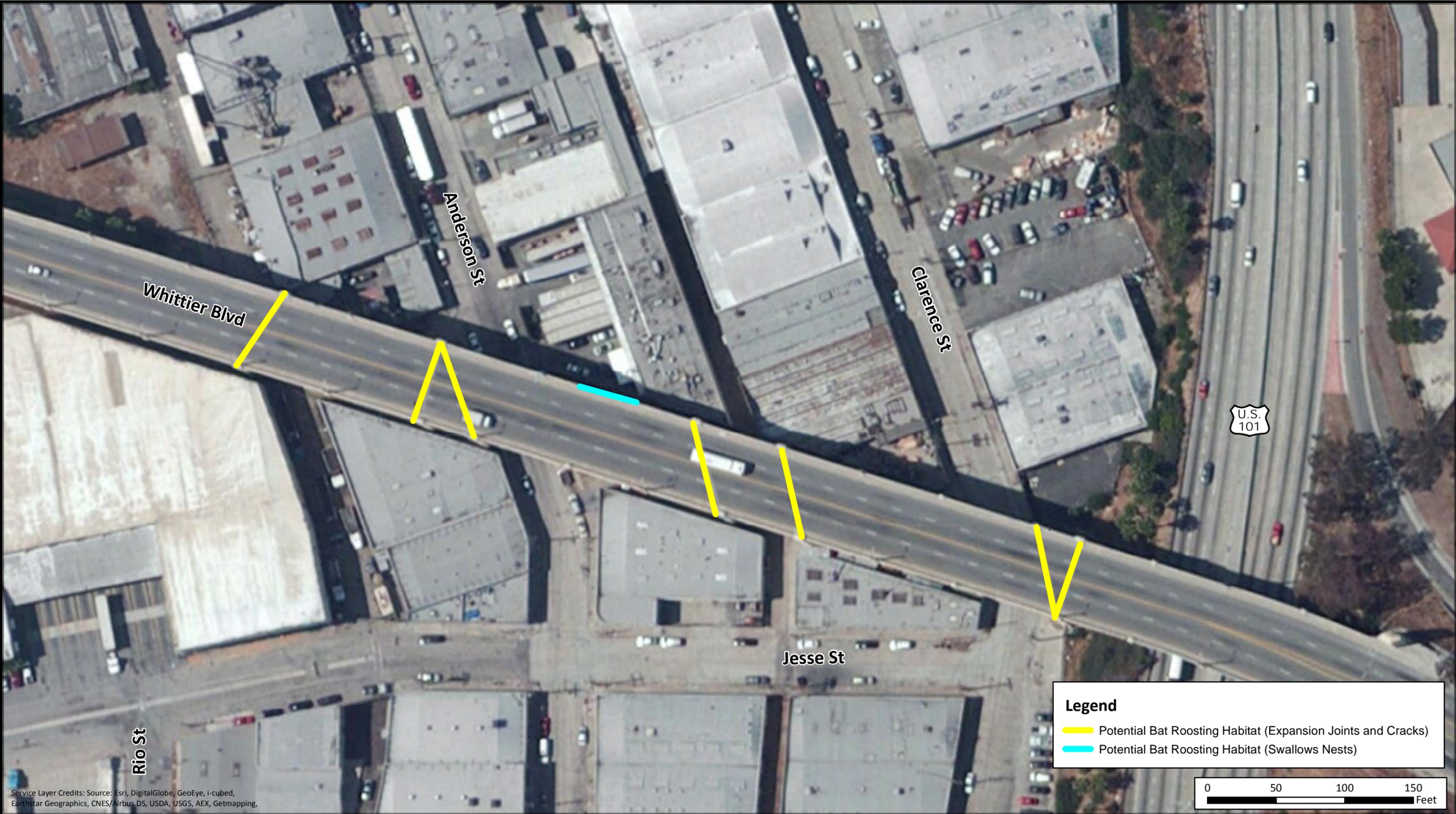
**FIGURE 3. BRIDGE SEGMENT 1 - POTENTIAL BAT ROOSTING HABITAT
6th Street Viaduct Replacement Project**





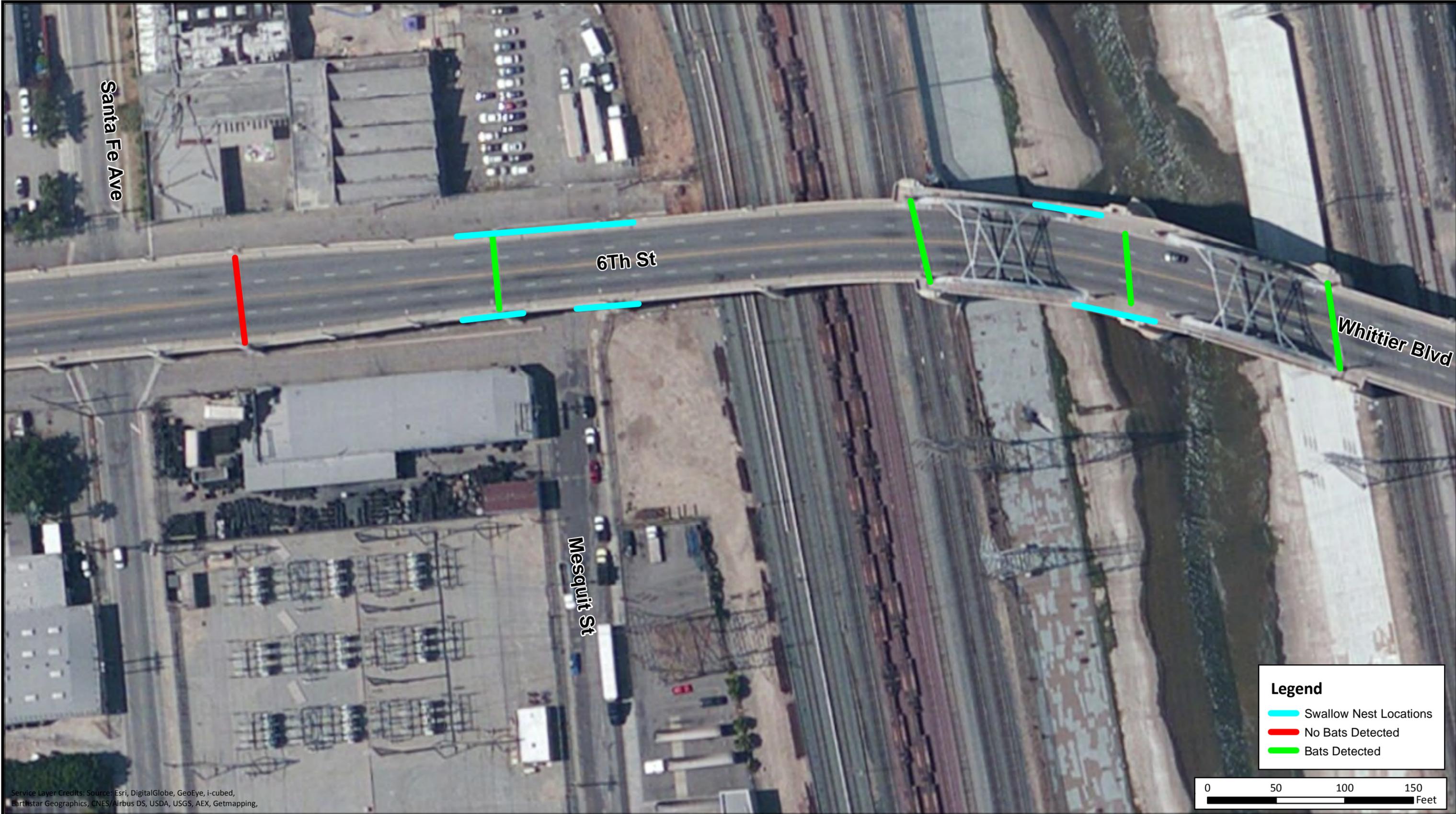
**FIGURE 4. BRIDGE SEGMENT 2 - POTENTIAL BAT ROOSTING HABITAT
6th Street Viaduct Replacement Project**





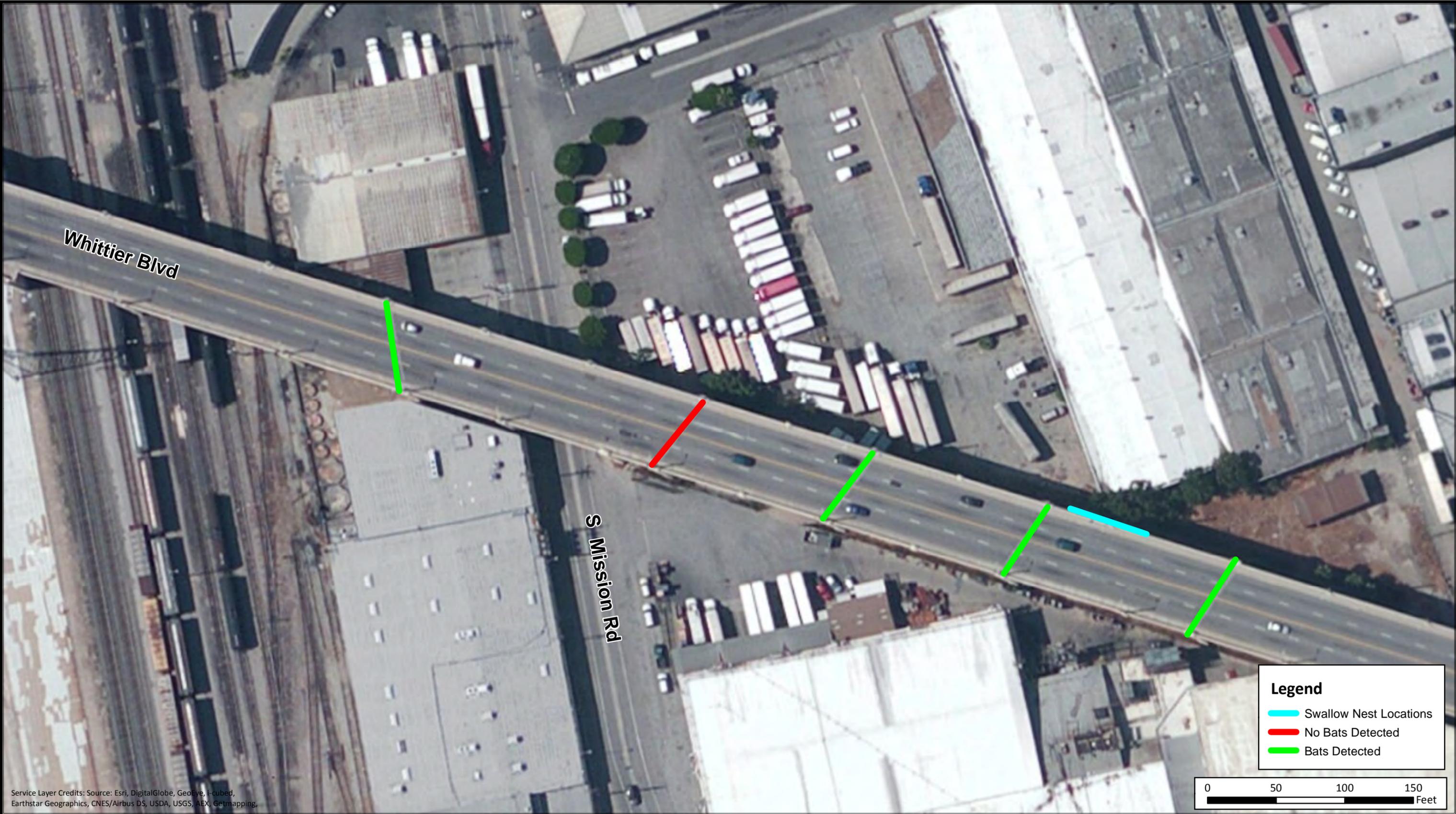
**FIGURE 5. BRIDGE SEGMENT 3 - POTENTIAL BAT ROOSTING HABITAT
6th Street Viaduct Replacement Project**





**FIGURE 6. BRIDGE SEGMENT 1 - LOCATIONS OF BAT DETECTIONS AND SWALLOW NESTS
6th Street Viaduct Replacement Project**





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**FIGURE 7. BRIDGE SEGMENT 2 - LOCATIONS OF BAT DETECTIONS AND SWALLOW NESTS
6th Street Viaduct Replacement Project**





FIGURE 8. BRIDGE SEGMENT 3 - LOCATIONS OF BAT DETECTIONS AND SWALLOW NESTS
6th Street Viaduct Replacement Project



3.4 Evening Bat Emergence Surveys

Temperatures during the surveys ranged from a high of 63.9 degrees Fahrenheit (F) to a low of 61.1 degrees F. Cloud cover ranged from 15 percent to 95 percent. Wind speed ranged from 0.5 to 4.9 miles per hour. Conditions during surveys were slightly cooler than what is typical for the month of May, but still within the range suitable for bats to be active and foraging.

More than 300 identifiable bat calls were recorded on the ultrasonic detectors during the evening emergence surveys. Bats were detected between shortly after sunset to approximately one hour after sunset (see **Table 1**). During all surveys, bats were detected exiting the viaduct at or near the expansion joints, cracks, and swallow nests. In some cases, the bats were detected emerging from the viaduct, but the exact location of the exit points could not be determined because calls were recorded but the bats were not observed visually. Bats were also observed foraging below the viaduct structure on all survey dates.

Table 1: Bats Detected on the Sixth Street Viaduct during Evening Emergence Surveys

Survey Date	Sunset Time	Survey Start and Stop Time	Temperature (F) Start/End	Yuma Myotis Bat	Mexican Free-Tailed Bat	Total
5/6/2015	7:40 pm	7:49pm/9:13pm	63.9/61.2	–	2	2
5/18/2015	7:49 pm	7:41pm/9:19pm	63.1/61.7	2	3	5
5/19/2015	7:50 pm	7:39pm/8:52pm	63.1/61.1	–	3	3
5/20/2015	7:51 pm	7:27pm/9:02pm	62.5/61.3	–	3	3
5/26/2015	7:55 pm	7:54pm/9:12pm	64.2/62.0	2	4	6

Source: Stephanie Remington, 2015

Recorded echolocation calls were analyzed, and both exit calls and social calls were identified. Two bat species were recorded during the surveys, including the Mexican free-tailed bat (*Tadarida brasiliensis*) and yuma myotis (*Myotis yumanensis*). The numbers and species of bats confirmed to be emerging from the structure are shown in **Table 1**. The approximate locations on the viaduct where bats were detected emerging from during evening emergence surveys are shown in **Figure 6**, **Figure 7**, and **Figure 8**.

3.5 Conclusions

Two species of bats and five species of birds are currently using the viaduct for roosting and nesting. Bats were detected in most areas where bat roosting habitat was identified. The overall number of bats detected during the evening emergence surveys was relatively low; therefore, a maternal colony of bats is not believed to be roosting on the viaduct currently. Swallows were nesting in relatively concentrated areas, primarily between Santa Fe Avenue and the middle bridge pier in the Los Angeles River corridor. While bird nesting on the bridge is likely to be complete by September 1, bats may continue to use the viaduct year-round.

4.0 PROPOSED MITIGATION

4.1 Impact Minimization Plan

The measures below are proposed to avoid, minimize, and mitigate for impacts on nesting birds and roosting bats during project demolition and construction. The measures are as follows:

Nesting Birds

- If demolition is scheduled within nesting season (typically between February 15 and September 15), nesting surveys will be performed by a qualified biologist no more than 72 hours prior to initiation of demolition activities to identify any active nests within 300 feet of the demolition area.
- Swallow nests that are determined to be inactive will be removed prior to any demolition (including demolition during or after the nesting season) under supervision of a qualified biologist to prevent reuse by swallows.
- If demolition is scheduled within nesting season (typically between February 15 and September 15), and any active nests are identified on the viaduct, a buffer zone with a width determined in coordination with CDFW will be installed around the nest(s) to prevent access to the area(s). Demolition activities will not commence within the buffer zone until the nest is determined to be inactive by a qualified biologist.

Bats

- Prior to demolition, inactive swallow nests will be surveyed by a qualified biologist to ensure that they are not being used by roosting bats. After confirming that no bats are using inactive swallow nests, these nests will be removed from the viaduct under the direction of a qualified biologist prior to any demolition activities. If nests are being used by bats, nest removal will be conducted under supervision of a qualified biologist during nighttime hours after the evening emergence.
- Alternative bat habitat (modified concrete Oregon wedge and/or bat houses) will be explored and constructed in nearby areas in coordination with CDFW prior to August 1, 2015 to provide alternative habitat for bats displaced by demolition of the viaduct. Success of the alternate habitat will be monitored and assessed prior to, during, and following demolition.
- Bat exclusion measures will be explored and implemented on the viaduct to the maximum extent feasible to reduce the potential for bat presence during demolition. No less than two weeks prior to demolition, a qualified biologist will survey the viaduct to determine the success of the exclusionary measures and identify whether there are any remaining bats. If any bats remain on the viaduct, appropriate measures will be implemented in coordination with the CDFW.
- During demolition of the viaduct, a biological monitor will be onsite to monitor for any bats still roosting on the viaduct, and ensure that they are not adversely affected, disturbed, and/or leaving roosting sites during the daytime.

Appendix A
Project Site Photographs



Photo 1: Solid concrete piers and girder structure on viaduct; view facing east



Photo 2: Solid concrete girders on viaduct with metal arches in the background; view facing east



Photo 3: Sealed cracks on viaduct, cracked from alkali-silica reaction; view facing west



Photo 4: Pier support and metal bearings on viaduct, and an expansion joint providing suitable bat roosting habitat; view facing west



Photo 5: Pier support and bridge deck attachments on viaduct; and an expansion joint accessible to bats; view facing west



Photo 6: Crack on edge of viaduct near pier support wide enough (greater than 0.50 inch) to provide suitable bat roosting habitat; view facing west

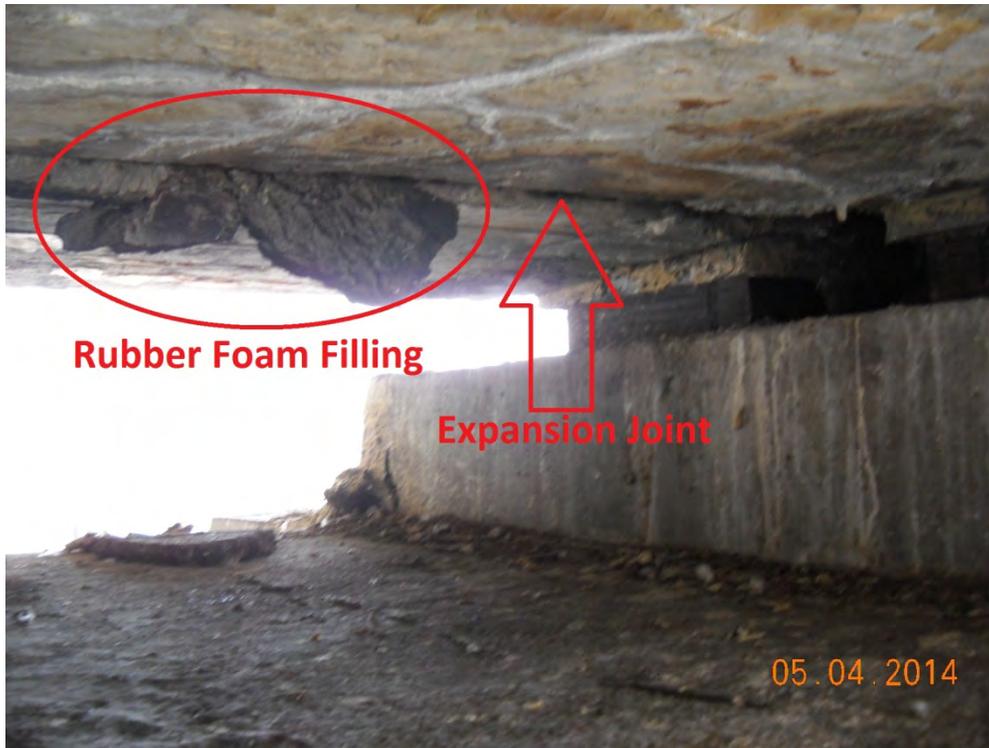


Photo 7: Falling rubber foam filling providing suitable bat roosting habitat within expansion joint; view facing west



Photo 8: Rubber foam filling falling from expansion joint and providing suitable bat roosting habitat; view facing southeast



Photo 9: Active swallow nests observed on the Sixth Street Viaduct near Santa Fe Avenue; view facing east



Photo 10: Active swallow nests on the viaduct near Santa Fe Avenue; view facing south



SIXTH STREET VIADUCT REPLACEMENT PROJECT

Supplemental Bat Survey Report

CITY OF LOS ANGELES, LOS ANGELES COUNTY

October 2015

SIXTH STREET VIADUCT REPLACEMENT PROJECT

Supplemental Bat Survey Report

CITY OF LOS ANGELES, LOS ANGELES COUNTY

Prepared for	Julie Allen, Principal Engineer Sixth Street Viaduct Division Bureau of Engineering City of Los Angeles Department of Public Works 1149 South Broadway Los Angeles, California 90015
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October 2015

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1.0 INTRODUCTION

The City of Los Angeles (City) and California Department of Transportation (Caltrans) are planning to replace the Sixth Street Viaduct in the City of Los Angeles (Los Angeles), Los Angeles County (project) (see **Figure 1** and **Figure 2**). The 0.70 mile long viaduct includes a bridge over the Los Angeles River (City Bridge No. 53C-1880) and an overcrossing that spans United States Highway 101 (U.S. 101) (Caltrans Bridge No. 53-0595).

During bat surveys performed at the Sixth Street Viaduct in May 2015, two species of bats, including Yuma myotis (*Myotis yumanensis*) and Mexican free-tailed bats (*Tadarida brasiliensis*), were recorded at the viaduct roosting and foraging. The bat survey results were included in a report sent to the California Department of Fish and Wildlife (CDFW) as part of the project's Streambed Alteration Agreement (SAA) application. During a project meeting on July 15, 2015 attended by representatives from CDFW, CH2MHill, the City, Skanska Stacey and Witbeck Inc., and GPA Consulting (GPA), CDFW biologist Kelly Schmoker requested additional bat surveys of the Fourth Street Viaduct and Seventh Street Viaduct over the Los Angeles River adjacent to the Sixth Street Viaduct as part of the conditions of the SAA. The objectives of the bat surveys were to identify roosting sites for bats on the Fourth Street Viaduct and Seventh Street Viaduct, to determine whether bats were roosting on these viaducts, and locate suitable bat habitat near the Sixth Street Viaduct to replace bat habitat expected to be lost during demolition of the Sixth Street Viaduct. The results of the supplemental bat surveys are included in this report.

1.1 Project Description

Twenty years after the Sixth Street Viaduct was constructed, the concrete supports began to disintegrate from a chemical reaction known as alkali-silica reaction, which has resulted in substantial deterioration of the structure. In 2004, a seismic vulnerability study concluded that the viaduct is vulnerable to failure during a major seismic event. Restoration of the viaduct has been attempted, but has not been successful.

Because the viaduct's condition is declining and repair is unfeasible, the City plans to demolish the existing viaduct and replace it with a new structure. The replacement structure will be constructed in the same general location, but will be built along a new vertical alignment (height) and have a different architectural design with multiple arches. The cross section of the new viaduct will meet modified secondary highway standards as required by the City of Los Angeles Department of Transportation (LADOT).

1.2 Project and Supplemental Survey Setting

Sixth Street Viaduct

Constructed in 1932, the Sixth Street Viaduct is an engineering landmark in Los Angeles. The viaduct is the longest of 14 historic structures crossing the Los Angeles River, and was determined eligible for inclusion in the National Register of Historic Places (NRHP) during a 1986 Caltrans bridge survey. Located in a highly urbanized area just east of downtown Los Angeles (see **Figure 1** and **Figure 2**), the viaduct serves as a transportation link between the Los Angeles Arts District and the neighborhood of Boyle

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FIGURE 2. PROJECT LOCATION
6th Street Viaduct Replacement Project



Heights. The viaduct has an overall length of approximately 3,700 feet and extends from east to west across the Los Angeles River, multiple railroad tracks, U.S. 101, and several local streets.

Fourth Street Viaduct

Constructed in 1930 and seismically retrofitted in 1995, the Fourth Street Viaduct is an open spandrel concrete arch structure that completely spans the Los Angeles River located approximately 1,150 feet north of the Sixth Street Viaduct (see **Appendix A: Photos 1 and 2**). The viaduct is included in the NRHP. The viaduct serves as a transportation link between the Los Angeles Arts District and the neighborhood of Boyle Heights. The viaduct has an overall length of approximately 3,300 feet and extends from east to west across the Los Angeles River and several local streets.

Seventh Street Viaduct

The Seventh Street Viaduct was built in two stages; the first level was built in 1910 and the second level was built in 1929. The viaduct is a reinforced concrete arch structure with three 80-foot clear spans located approximately 1,400 feet south of the Sixth Street Viaduct (see **Appendix A: Photos 3 and 4**). The lower viaduct level was built at grade (ground level) to allow trolleys to cross the river, which at the time was not concrete lined. In the mid-1920s the City decided to raise the bridge to allow for railroad freight traffic going north and south to pass under the viaduct along the banks of the river. Rather than demolish the bridge, the City built a higher deck on top of the existing bridge. Vehicle traffic currently travels on the top deck. The bridge was seismically retrofitted in 1995 and is included in the NRHP. The viaduct serves as a transportation link between the Los Angeles Arts District and the neighborhood of Boyle Heights. The viaduct has an overall length of approximately 1,000 feet and extends from east to west across the Los Angeles River.

2.0 SURVEY METHODS

2.1 Purpose of Surveys

Surveys for bat roosting habitat, evening bat emergence surveys, nighttime bat roosting surveys, and alternative bat habitat location assessment were required by CDFW as part of the project SAA. Therefore, the purpose of the surveys was to determine:

- Location of potential bat roosting habitat on the Fourth Street Viaduct and Seventh Street Viaduct;
- Extent of bat roosting habitat on the Fourth Street Viaduct and Seventh Street Viaduct relative to the Sixth Street Viaduct;
- Presence/absence of roosting bats on the Fourth Street Viaduct and Seventh Street Viaduct, location of roosts, type of roosts (daytime or nighttime roosts), and species present, and;
- Assessment of suitable locations for alternative bat enclosures.

2.2 Daytime Bat Habitat Surveys

GPA performed bat habitat assessment surveys at the Fourth Street Viaduct on August 24, 2015 and the Seventh Street Viaduct on August 25, 2015. Habitat assessments were conducted to identify potential bat roosting habitat in preparation for bat evening emergence surveys. The assessments were

performed on foot by GPA biologist Stan C. Glowacki and bat specialist Stephanie Remington from accessible areas beneath the viaducts, including the Los Angeles River Channel, local streets beneath the viaducts, and from a construction zone beneath the west side of the Fourth Street Viaduct.

Most areas beneath the viaducts were accessible and were surveyed using binoculars or un-aided vision. Areas beneath the viaducts that were not directly accessible included the railroad right of way on both sides of the river channel and the middle portion of the Seventh Street Viaduct over the river channel; however, these areas were surveyed using binoculars from adjacent areas. The locations of potential bat roosting habitat were recorded and photographs were taken.

2.3 Evening Bat Emergence Surveys

Evening bat emergence surveys were performed on the Fourth Street Viaduct on August 24, August 27, September 1 and September 28, 2015. Surveys were performed on the Seventh Street Viaduct on August 25, 26, and 31, 2015. Surveys were performed by a team of five to six surveyors stationed near areas where potential bat roosting habitat was identified during the daytime habitat assessment surveys.

During each survey, surveyors were stationed over a distance of approximately 300 to 400 feet under the targeted viaduct; surveyors were spread approximately 100 feet apart, depending on the viaduct being surveyed, and limitations to accessibility (e.g. river flow). Each biologist was equipped with an acoustic bat detector (AnaBat™, Pettersson D240x, Batbox™ Baton, or Wildlife Acoustics™ EM3+) that detected and/or recorded bat echolocation calls.

Each survey began approximately 10 minutes prior to sunset and lasted until approximately 40 minutes after sunset when the sky became completely dark. Following each survey, individual surveyor results, including the number of bats observed/recorded, time of observations, and whether bats were visually confirmed to be exiting the bridges or nearby locations, were recorded. After each survey, results were logged by bat specialist Stephanie Remington. Ms. Remington also performed an analysis of the recordings for each survey to identify echolocation call types and bat species detected during the emergence surveys.

2.4 Nighttime Bat Surveys

Nighttime bat surveys were performed in the Los Angeles River channel beneath the Fourth Street Viaduct and Seventh Street Viaduct on September 1 and September 28, 2015. Surveys were performed by a team of five surveyors, and were focused on areas beneath the viaducts where potential bat night roosting habitat was observed during the daytime habitat assessment surveys. The surveys were conducted for four to six hours past sunset. During the surveys, the team split up into two groups positioned on opposite sides of each viaduct. The team also repositioned between both viaducts several times to maximize the survey area and probability of observing night roosting bats. Each biologist was equipped with an acoustic bat detector (AnaBat™, Pettersson D240x, Batbox™ Baton, or Wildlife Acoustics™ EM3+) that detected and/or recorded bat echolocation calls. Ms. Remington was equipped with night vision binoculars.

2.5 Alternative Bat Habitat Location Assessment

The Fourth Street Viaduct and Seventh Street Viaduct were surveyed by bat specialist Stephanie Remington and GPA biologist Stan C. Glowacki for potential locations to place alternative bat habitat enclosures (e.g., modified Oregon wedge) on September 25, 2015. Potential locations for alternative bat habitat were focused on these viaducts because the structures are within the river channel and within the line of sight of the Sixth Street Viaduct, which increases the potential for displaced bats to relocate their roosts to these sites. During the surveys, the underside of the Fourth Street Viaduct and the area of the Seventh Street Viaduct between the bridge decks were accessed using a man-lift to allow the biologists close inspection of the structures. Habitat requirements of Yuma myotis and Mexican free-tailed bats were considered when identifying potential locations for placement of alternative bat habitat, including structural, temperature, and ground clearance requirements. Potential locations identified during the surveys were recorded and photographs of the locations were taken.

3.0 RESULTS

3.1 Daytime Bat Habitat Surveys

The Fourth Street Viaduct is a solid structure with concrete abutments, concrete piers, concrete girders, and concrete arches. The viaduct is approximately 50 feet above the river channel and approximately 20 to 30 feet above ground level outside of the river channel (see **Appendix A, Photos 1 and 2**). There are two visible expansion joints, extending across the bottom of the bridge deck in the river channel, which provide suitable day and night bat roosting habitat (see **Appendix A, Photos 3 and 4**). There are also several expansion joints and cracks on the structure, outside of the river channel, that provide suitable day and night bat roosting habitat. The remaining portion of the structure is made of sealed concrete girders that do not provide suitable bat roosting habitat. Four swallow nests were observed on the structure, west of the river channel, which could be used by bats for roosting. Compared to the Sixth Street Viaduct, there is considerably less bat roosting habitat on the Fourth Street Viaduct.

The Seventh Street Viaduct is made with concrete girders, concrete piers, and concrete arches. The lower portion of the viaduct consists of three arches built over the river channel. The upper portion of the viaduct is built on top of the old bridge deck supported by the arches (see **Appendix A, Photos 5 and 6**). The viaduct is approximately 40 feet above the river channel and approximately 20 feet above ground level over the railroad tracks outside of the river channel. Most of the structure is constructed of sealed concrete, and there are no visible expansion joints beneath the arches of the bridge deck in the river channel. There are no visible expansion joints beneath the upper bridge deck; however, there were numerous drainage holes on the bottom of the bridge deck that provide suitable day and night bat roosting habitat (see **Appendix A, Photo 7**), and there are several cracks beneath the new bridge deck and on the outside of the structure that provide suitable bat roosting habitat (see **Appendix A, Photo 8**). Ten swallow nests were observed on the structure that provide suitable bat roosting habitat. The interior portion of the structure, between the lower and upper bridge decks, also provides suitable night roosting habitat. There is considerably less suitable bat roosting habitat on the Seventh Street Viaduct compared to the Sixth Street Viaduct.

3.2 Evening Bat Emergence Surveys

Temperatures during the surveys ranged from a high of 82.9 degrees Fahrenheit (F) to a low of 71.8 degrees F (see **Table 1**). Cloud cover ranged from 15 percent to 60 percent. Wind speed ranged from 0.5 to 4.9 miles per hour. Temperatures during surveys were slightly warmer than what is typical for the months of August and September, and well within the range suitable for bats to be active and foraging.

Bats were recorded by ultrasonic detectors and observed by surveyors emerging from the Fourth Street Viaduct and Seventh Street Viaduct during all the evening emergence surveys except for the survey on August 27, 2015, which was at the Fourth Street Viaduct near Santa Fe Avenue outside of the river channel and west of the railroad (see **Table 1**). Bats were detected between shortly after sunset to approximately 45 minutes after sunset. Recorded bat calls were analyzed, and both exit calls and social calls were identified. Two bat species were recorded during the surveys, including the Mexican free-tailed bat and Yuma myotis.

Table 1: Bats Detected During Evening Emergence Surveys

Survey Date (2015)	Location	Sunset Time (PM)	Survey Start/ Stop Time (PM)	Temperature (F) Start/End	Bats Species Detected with Acoustic Detector	Bats Observed Emerging from Viaduct
August 24	Fourth Street	7:29	7:20/8:15	81.0/76.4	<i>Myotis Yumanensis</i> (MYYU) and <i>Tadarida brasiliensis</i> (TABR)	Yes
August 25	Seventh Street	7:28	7:25/8:20	82.9/81.0	MYYU and TABR	Yes
August 26	Seventh Street	7:26	7:19/8:15	80.9/78.4	MYYU and TABR	Yes
August 27	Fourth Street	7:25	7:20/8:10	79.4/78.2	N/A	No
August 31	Seventh Street	7:20	7:15/8:12	76.3/73.1	MYYU and TABR	Yes
September 1	Fourth Street	7:19	7:15/8:10	72.7/71.8	MYYU and TABR	Yes
September 28	Fourth Street	6:42	6:40/7:30	79.0/75.2	MYYU and TABR	Yes

Approximately 10 bats were recorded and/or directly observed exiting the Seventh Street Viaduct during each survey, with most bats exiting the viaduct on the west side of the river channel. Both species of bats were detected roosting at the Seventh Street Viaduct. After emerging, bats were observed foraging on the north side of the viaduct in areas where it appeared that wind was concentrating densities of insects.

In general, fewer bats were detected and/or observed during surveys at the Fourth Street Viaduct compared to the Seventh Street Viaduct; however, both Mexican free-tailed bats and Yuma myotis were detected roosting at Fourth Street Viaduct. The majority of bats at the Fourth Street Viaduct were

observed exiting areas where there are expansion joints over the river channel. After emerging, bats were observed foraging beneath the viaduct and in the river channel.

3.3 Nighttime Bat Surveys

Both Mexican free-tailed bats and Yuma myotis were detected roosting on the Fourth Street Viaduct and the Seventh Street Viaduct during the September 1 and September 28, 2015 nighttime surveys. Bats were detected roosting three to four hours after sunset on both nights. Bats were roosting near the expansion joints on the Fourth Street Viaduct. Bats were roosting in the area between the bridge decks on the Seventh Street Viaduct; however, the exact locations could not be determined because the area between the bridge decks was not easily observable from the river channel.

3.4 Alternative Bat Habitat Location Assessment

Suitable locations for alternative bat habitat enclosures were identified during surveys of the Fourth Street Viaduct and Seventh Street Viaduct. Areas on the underside of the Fourth Street Viaduct on the concrete girders near the existing expansion joints were selected as the most suitable locations to place alternative bat habitat enclosures because these areas had sufficient ground clearance, were near the expansion joints where bats were observed night roosting, were concrete, and were inaccessible to human disturbance (see **Appendix A, Photo 9**). Areas beneath the upper bridge deck of the Seventh Street Viaduct on the concrete girders facing out towards the river channel were selected as the most suitable locations to place alternative bat habitat enclosures **because** these areas had sufficient ground clearance, were near the areas where bats were observed exiting the structure during evening emergence surveys, were concrete, and were inaccessible to human disturbance (see **Appendix A, Photo 10**).

4.0 CONCLUSIONS

Mexican free-tailed bats and Yuma myotis are using the Fourth Street Viaduct and the Seventh Street Viaduct for both daytime and nighttime roosting. There is considerably less bat roosting habitat (e.g., expansion joints) on these viaducts compared to the Sixth Street Viaduct. Because of the low quantities of existing roosting habitat observed on the Fourth Street and Seventh Street viaducts, installation of alternative bat habitat enclosures is recommended to supplement existing habitat and compensate for the bat habitat lost by demolition of the Sixth Street Viaduct. There are suitable locations for installation of alternative bat habitat enclosures on the Fourth Street Viaduct and Seventh Street Viaduct. Based on the requirements of the SAA, after the alternative roosts are installed on the viaducts, they will be monitored for up to three years to check for bat utilization, or for one year after verification of use by roosting bats.

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Appendix A

Project Site Photographs

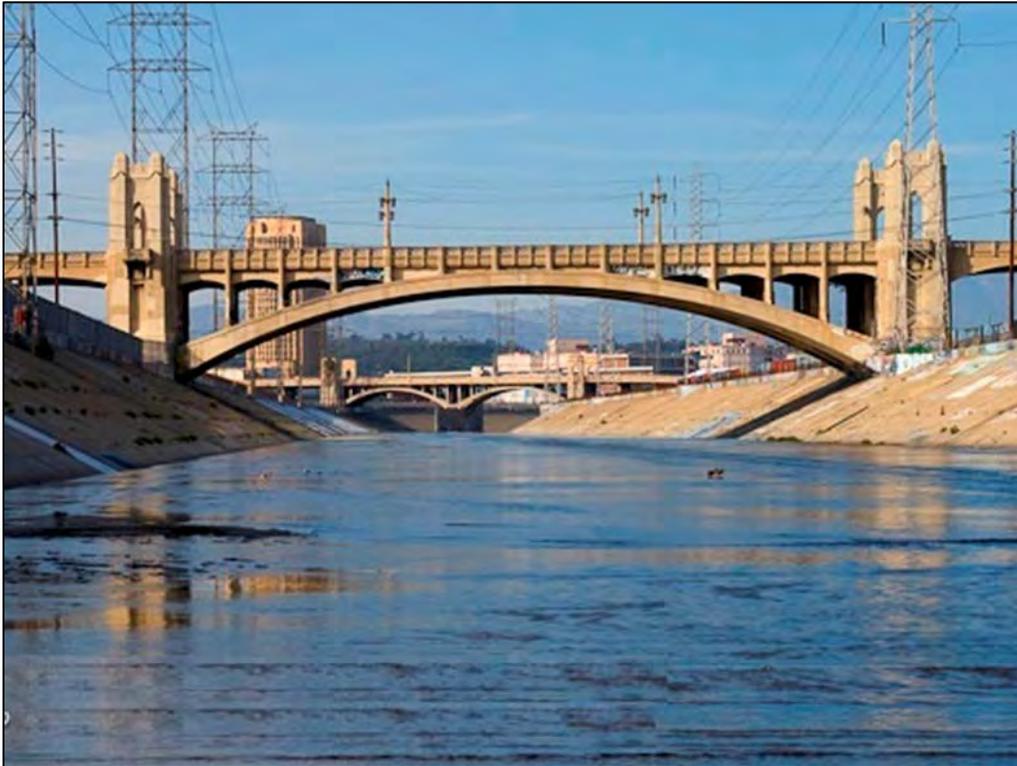


Photo 1: Fourth Street Viaduct over the Los Angeles River; view facing north



Photo 2: Underside of Fourth Street Viaduct showing concrete arches and girders; view facing east



Photo 3: Underside of Fourth Street Viaduct showing eastern expansion joint; view facing east



Photo 4: Underside of Fourth Street Viaduct showing western expansion joint; view facing west



Photo 5: Seventh Street Viaduct over the Los Angeles River; view facing south



Photo 6: East side of Seventh Street Viaduct over the Los Angeles River showing double-decked structure; view facing west



Photo 7: Drainage holes on the underside of the Seventh Street Viaduct upper bridge deck; view facing east



Photo 8: Cracks on the outer girders of the Seventh Street Viaduct upper bridge deck provide suitable bat roosting habitat; view facing north

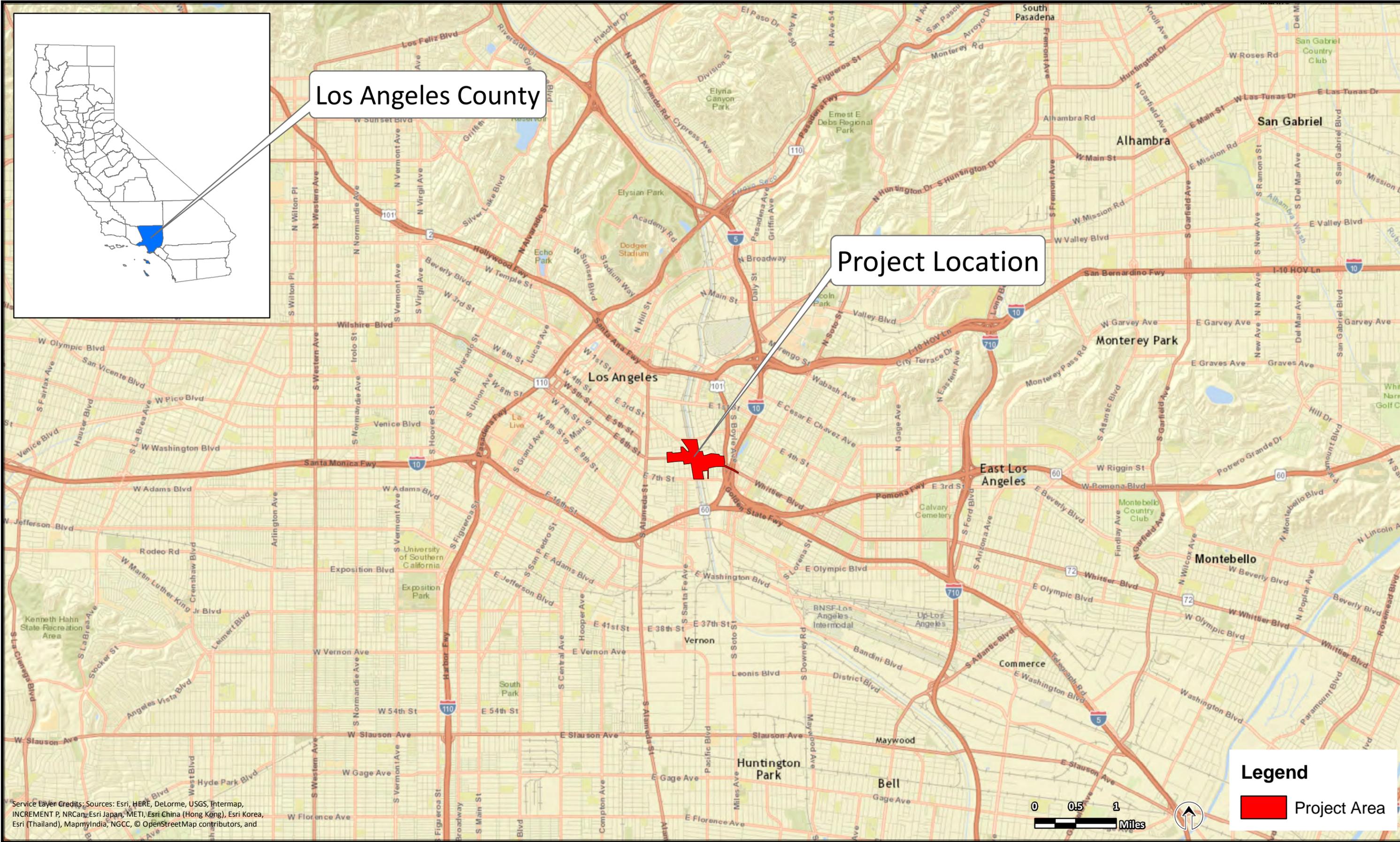


Photo 9: Approximate locations selected for placement of alternative bat habitat enclosures on the concrete girders of the Fourth Street Viaduct; view facing east



Photo 10: Approximate locations selected for placement of alternative bat habitat enclosures on the concrete girders (facing out towards the river channel) of the Seventh Street Viaduct; view facing east

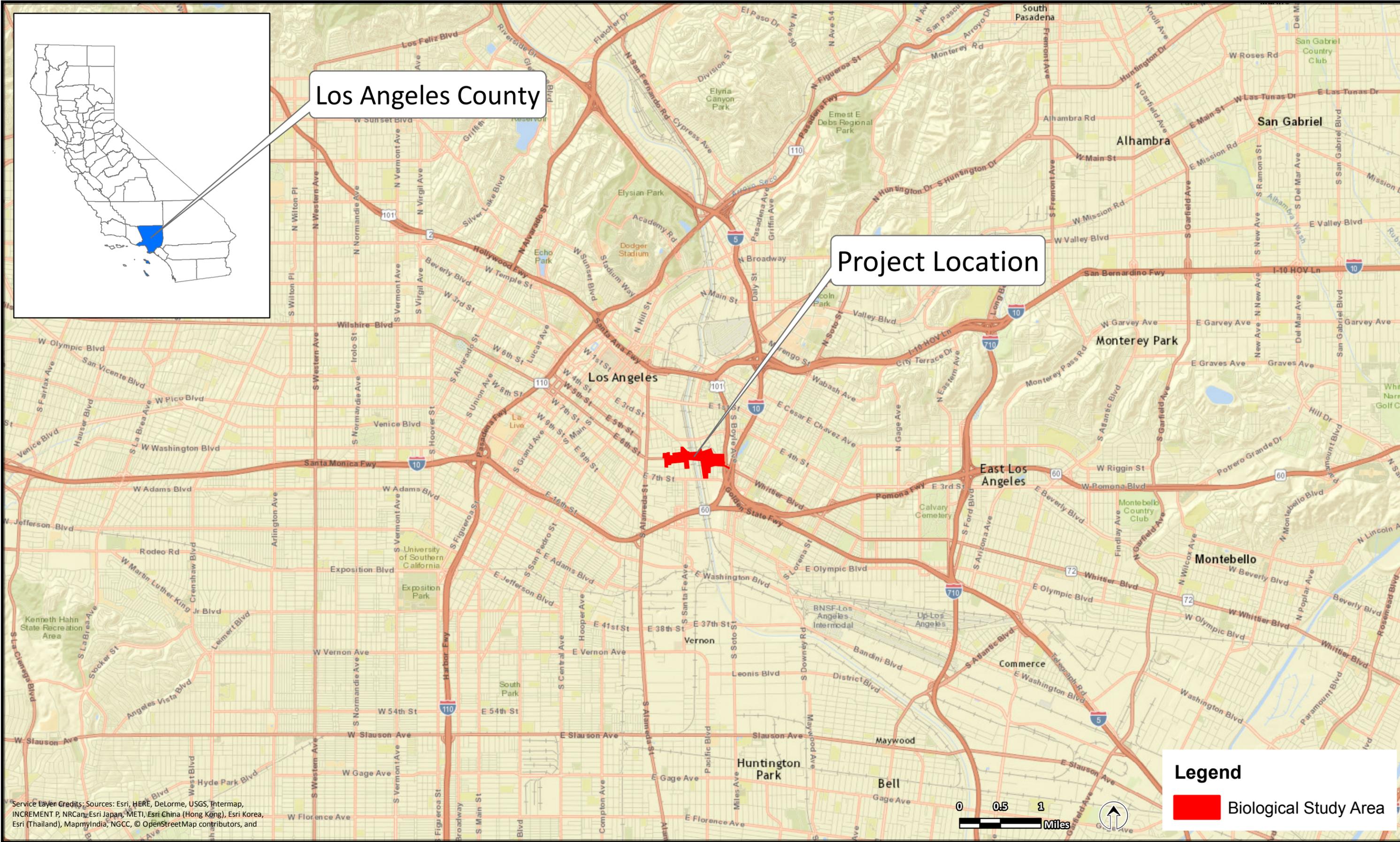
ATTACHMENT C
MAPS



Service Layer Credits; Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and



FIGURE 2. REGIONAL LOCATION
Sixth Street PARC Project



Los Angeles County

Project Location

Legend

Biological Study Area

Service Layer Credits; Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and



FIGURE 3. REGIONAL LOCATION Viaduct Replacement Project

ATTACHMENT D
AERIALS AND PHOTOGRAPHS

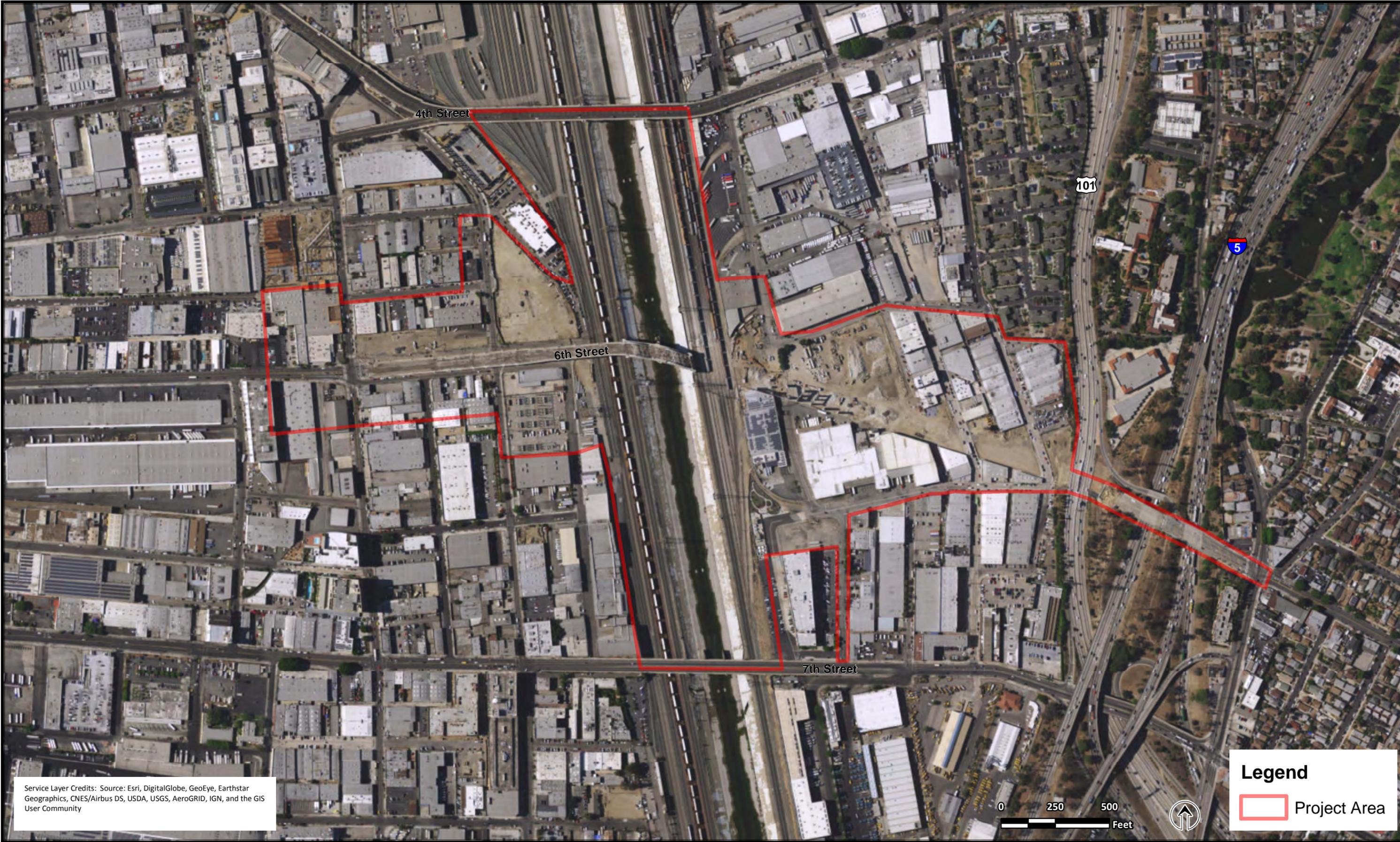


FIGURE 1 PROJECT LOCATION
Sixth Street PARC Project

ATTACHMENT E
SPECIES LISTS



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad

Sixth Street PARC Project 06/04/2018

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
Aimophila ruficeps canescens southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S3	WL
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Arenaria paludicola marsh sandwort	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Astragalus brauntonii Braunton's milk-vetch	PDFAB0F1G0	Endangered	None	G2	S2	1B.1
Astragalus tener var. titi coastal dunes milk-vetch	PDFAB0F8R2	Endangered	Endangered	G2T1	S1	1B.1
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Atriplex coulteri Coulter's saltbush	PDCHE040E0	None	None	G3	S1S2	1B.2
Atriplex serenana var. davidsonii Davidson's saltscale	PDCHE041T1	None	None	G5T1	S1	1B.2
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
California Walnut Woodland California Walnut Woodland	CTT71210CA	None	None	G2	S2.1	
Calochortus plummerae Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2
Calystegia felix lucky morning-glory	PDCON040P0	None	None	G1Q	S1	1B.1
Carolella busckana Busck's gallmoth	IILEM2X090	None	None	G1G3	SH	
Centromadia parryi ssp. australis southern tarplant	PDAST4R0P4	None	None	G3T2	S2	1B.1
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Dudleya multicaulis many-stemmed dudleya	PDCRA040H0	None	None	G2	S2	1B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S1	
<i>Eryngium aristulatum var. parishii</i> San Diego button-celery	PDAP10Z042	Endangered	Endangered	G5T1	S1	1B.1
<i>Eumops perotis californicus</i> western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
<i>Helianthus nuttallii ssp. parishii</i> Los Angeles sunflower	PDAST4N102	None	None	G5TH	SH	1A
<i>Horkelia cuneata var. puberula</i> mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
<i>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G5	S4	
<i>Lasthenia glabrata ssp. coulteri</i> Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
<i>Lepidium virginicum var. robinsonii</i> Robinson's pepper-grass	PDBRA1M114	None	None	G5T3	S3	4.3
<i>Microtus californicus stephensi</i> south coast marsh vole	AMAFF11035	None	None	G5T1T2	S1S2	SSC
<i>Nasturtium gambelii</i> Gambel's water cress	PDBRA270V0	Endangered	Threatened	G1	S1	1B.1
<i>Navarretia fossalis</i> spreading navarretia	PDPLM0C080	Threatened	None	G2	S2	1B.1
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	PDPLM0C0Q0	None	None	G2	S2	1B.1
<i>Nyctinomops femorosaccus</i> pocketed free-tailed bat	AMACD04010	None	None	G4	S3	SSC
<i>Nyctinomops macrotis</i> big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
<i>Orcuttia californica</i> California Orcutt grass	PMPOA4G010	Endangered	Endangered	G1	S1	1B.1
<i>Phacelia stellaris</i> Brand's star phacelia	PDHYD0C510	None	None	G1	S1	1B.1
<i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
<i>Poliophtila californica californica</i> coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T2Q	S2	SSC
<i>Pseudognaphalium leucocephalum</i> white rabbit-tobacco	PDAST440C0	None	None	G4	S2	2B.2
<i>Ribes divaricatum var. parishii</i> Parish's gooseberry	PDGRO020F3	None	None	G5TX	SX	1A
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S2	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Sidalcea neomexicana</i> salt spring checkerbloom	PDMAL110J0	None	None	G4	S2	2B.2
Southern Sycamore Alder Riparian Woodland Southern Sycamore Alder Riparian Woodland	CTT62400CA	None	None	G4	S4	
<i>Symphotrichum defoliatum</i> San Bernardino aster	PDASTE80C0	None	None	G2	S2	1B.2
<i>Symphotrichum greatae</i> Greata's aster	PDASTE80U0	None	None	G2	S2	1B.3
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Vireo bellii pusillus</i> least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
Walnut Forest Walnut Forest	CTT81600CA	None	None	G1	S1.1	

Record Count: 47

Plant List

47 matches found. [Click on scientific name for details](#)

Search Criteria

Found in Quads 3411814, 3311884, 3311874 3311873 and 3311872;

[Modify Search Criteria](#)
[Export to Excel](#)
[Modify Columns](#)
[Modify Sort](#)
[Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Abronia maritima	red sand-verbena	Nyctaginaceae	perennial herb	Feb-Nov	4.2	S3?	G4
Aphanisma blitoides	aphanisma	Chenopodiaceae	annual herb	Feb-Jun	1B.2	S2	G3G4
Astragalus brauntonii	Braunton's milk-vetch	Fabaceae	perennial herb	Jan-Aug	1B.1	S2	G2
Astragalus pycnostachyus var. lanosissimus	Ventura marsh milk-vetch	Fabaceae	perennial herb	(Jun)Aug-Oct	1B.1	S1	G2T1
Astragalus tener var. titi	coastal dunes milk-vetch	Fabaceae	annual herb	Mar-May	1B.1	S1	G2T1
Atriplex coulteri	Coulter's saltbush	Chenopodiaceae	perennial herb	Mar-Oct	1B.2	S1S2	G3
Atriplex pacifica	South Coast saltscale	Chenopodiaceae	annual herb	Mar-Oct	1B.2	S2	G4
Atriplex parishii	Parish's brittlescale	Chenopodiaceae	annual herb	Jun-Oct	1B.1	S1	G1G2
Calochortus catalinae	Catalina mariposa lily	Liliaceae	perennial bulbiferous herb	(Feb)Mar-Jun	4.2	S3S4	G3G4
Calochortus plummerae	Plummer's mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	4.2	S4	G4
Calystegia peirsonii	Peirson's morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jun	4.2	S4	G4
Camissoniopsis lewisii	Lewis' evening-primrose	Onagraceae	annual herb	Mar-May(Jun)	3	S4	G4
Centromadia parryi ssp. australis	southern tarplant	Asteraceae	annual herb	May-Nov	1B.1	S2	G3T2
Chaenactis glabriuscula var. orcuttiana	Orcutt's pincushion	Asteraceae	annual herb	Jan-Aug	1B.1	S1	G5T1T2
Chenopodium littoreum	coastal goosefoot	Chenopodiaceae	annual herb	Apr-Aug	1B.2	S2	G2
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct(Nov)	1B.2	S1	G4?T1
Chorizanthe parryi var. fernandina	San Fernando Valley spineflower	Polygonaceae	annual herb	Apr-Jul	1B.1	S1	G2T1
Cistanthe maritima	seaside cistanthe	Montiaceae	annual herb	(Feb)Mar-Jun(Aug)	4.2	S3	G3G4
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	4.2	S4	G4
Deinandra paniculata	paniculate tarplant	Asteraceae	annual herb	(Mar)Apr-Nov	4.2	S4	G4
Dichondra occidentalis	western dichondra	Convolvulaceae	perennial rhizomatous	(Jan)Mar-Jul	4.2	S3S4	G3G4

			herb					
Dithyrea maritima	beach spectaclepod	Brassicaceae	perennial rhizomatous herb	Mar-May	1B.1	S1	G1	
Dudleya multicaulis	many-stemmed dudleya	Crassulaceae	perennial herb	Apr-Jul	1B.2	S2	G2	
Dudleya virens ssp. insularis	island green dudleya	Crassulaceae	perennial herb	Apr-Jun	1B.2	S3	G3?T3	
Eryngium aristulatum var. parishii	San Diego button-celery	Apiaceae	annual / perennial herb	Apr-Jun	1B.1	S1	G5T1	
Erysimum suffrutescens	suffrutescent wallflower	Brassicaceae	perennial herb	Jan-Jul(Aug)	4.2	S3	G3	
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun	3.2	S3S4	G3G4	
Horkelia cuneata var. puberula	mesa horkelia	Rosaceae	perennial herb	Feb-Jul(Sep)	1B.1	S1	G4T1	
Isocoma menziesii var. decumbens	decumbent goldenbush	Asteraceae	perennial shrub	Apr-Nov	1B.2	S2	G3G5T2T3	
Juncus acutus ssp. leopoldii	southwestern spiny rush	Juncaceae	perennial rhizomatous herb	(Mar)May-Jun	4.2	S4	G5T5	
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	1B.1	S2	G4T2	
Leptosyne maritima	sea dahlia	Asteraceae	perennial herb	Mar-May	2B.2	S1	G2	
Lycium brevipes var. hassei	Santa Catalina Island desert-thorn	Solanaceae	perennial deciduous shrub	Jun(Aug)	3.1	S1	G5T1Q	
Nama stenocarpa	mud nama	Namaceae	annual / perennial herb	Jan-Jul	2B.2	S1S2	G4G5	
Navarretia prostrata	prostrate vernal pool navarretia	Polemoniaceae	annual herb	Apr-Jul	1B.1	S2	G2	
Nemacaulis denudata var. denudata	coast woolly-heads	Polygonaceae	annual herb	Apr-Sep	1B.2	S2	G3G4T2	
Pentachaeta lyonii	Lyon's pentachaeta	Asteraceae	annual herb	(Feb)Mar-Aug	1B.1	S1	G1	
Phacelia hubbyi	Hubby's phacelia	Hydrophyllaceae	annual herb	Apr-Jul	4.2	S4	G4	
Phacelia ramosissima var. australitoralis	south coast branching phacelia	Hydrophyllaceae	perennial herb	Mar-Aug	3.2	S3	G5?T3	
Phacelia stellaris	Brand's star phacelia	Hydrophyllaceae	annual herb	Mar-Jun	1B.1	S1	G1	
Potentilla multijuga	Ballona cinquefoil	Rosaceae	perennial herb	Jun-Aug	1A	SX	GX	
Quercus dumosa	Nuttall's scrub oak	Fagaceae	perennial evergreen shrub	Feb-Apr(May-Aug)	1B.1	S3	G3	
Sidalcea neomexicana	salt spring checkerbloom	Malvaceae	perennial herb	Mar-Jun	2B.2	S2	G4	
Suaeda esteroa	estuary seablite	Chenopodiaceae	perennial herb	(May)Jul-Oct(Jan)	1B.2	S2	G3	
Suaeda taxifolia	woolly seablite	Chenopodiaceae	perennial evergreen shrub	Jan-Dec	4.2	S4	G	
Symphyotrichum defoliatum	San Bernardino aster	Asteraceae	perennial rhizomatous herb	Jul-Nov	1B.2	S2	G2	
Symphyotrichum greatae	Greata's aster	Asteraceae	perennial rhizomatous herb	Jun-Oct	1B.3	S2	G2	

Suggested Citation

California Native Plant Society, Rare Plant Program. 2018. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed 04 June 2018].

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Questions and Comments

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United States Department of the Interior



FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901
<http://www.fws.gov/carlsbad/>

In Reply Refer To:

June 04, 2018

Consultation Code: 08ECAR00-2018-SLI-1174

Event Code: 08ECAR00-2018-E-02622

Project Name: Sixth Street PARC Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Carlsbad Fish And Wildlife Office

2177 Salk Avenue - Suite 250

Carlsbad, CA 92008-7385

(760) 431-9440

Project Summary

Consultation Code: 08ECAR00-2018-SLI-1174

Event Code: 08ECAR00-2018-E-02622

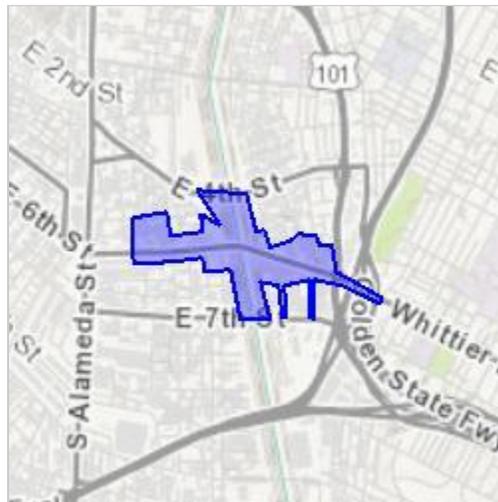
Project Name: Sixth Street PARC Project

Project Type: RECREATION CONSTRUCTION / MAINTENANCE

Project Description: City of Los Angeles from the Downtown LA Arts District to Boyle, landscape project.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/34.03807109192396N118.22856052535775W>



Counties: Los Angeles, CA

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Coastal California Gnatcatcher <i>Polioptila californica californica</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8178	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.
