ENVIRONMENTAL ASSESSMENT

[redacted] BIKEWAY/PEDESTRIAN BRIDGE OVER THE [redacted] RIVER

PREPARED FOR:

[redacted]

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Contents

Tables and Figures

Acronyms and Abbreviations

bgs	below ground surface
BMPs	best management practices
BSA	biological study area
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CIDH	cast in drilled hole
City	City of [redacted]
CNDDB	California Natural Diversity Database
CNPS Inventory	California Native Plant Society Inventory of Rare, Threatened, and Endangered Plants of California
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
EA	Environmental Assessment
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
FONSI	Finding of No Significant Impacts
GHG	greenhouse gas
I	Interstate
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
LID	Low-Impact Development
MLD	Most Likely Descendent
MOU	Memorandum of Understanding
MS4	Municipal Separate Storm Sewer System
mty	metric tons per year
NAAQS	National Air Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Association
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O_3	ozone
OAERP	Operational Area Emergency Response Plan
PM_{10}	particulate matter 10 microns or less in diameter

$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
proposed action	[redacted]/Pedestrian Bridge Over the[redacted] River Project
RIO	River Improvement Overlay
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
SMP	Soil Management Plan
SR	State Route
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
U.S.C	United States Code
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VOC	volatile organic compound

1.0 INTRODUCTION

This Environmental Assessment (EA) has been prepared to evaluate effects of the proposed action and reasonable alternatives. An EA is intended to provide sufficient evidence and analysis for determining whether to prepare an EIS or a Finding of No Significant Impacts (FONSI). This EA has been prepared pursuant to NEPA (42 United States Code 4321 et seq.), Council on Environmental Quality (CEQ) regulations published at 40 Code of Federal Regulations (CFR) Part 1500 et seq., the USACE Engineering Regulation 200-2-2, Procedures for Implementing NEPA (33 CFR Part 230), other environmental laws, Executive Orders, and USACE regulations and policies.

1.1 Background

In 2007, the City Council (C.F. 07-1342) adopted the long-range River Revitalization Master Plan ( ), which, among its recommendations, includes Recommendation 4.12: "Continue development of non-motorized transportation and recreation elements including bike and pedestrian paths and multiuse trails in the river and tributary rights of way" , 2007).

One of the goals of the is to enhance the River identity. The identifies bicycle and pedestrian bridges and multi-modal bridges as building blocks that can be used to enhance the River identity. The guidelines include the following:

- Light for safety, and design lighting features to highlight the bridge
- Bridges should always safely accommodate both pedestrians and bicycle traffic
- Commission 'signature' non-motorized bridges that express a design or artistic sensibility and become landmarks for the river , 2007)

The also includes the as its Project No. 171. Additionally, the River Ecosystem Restoration Study discusses a need for a bridge over the River at .

In 1992, the Regional Rail Authority and the City of entered into an agreement regarding the Rail Commuter Facility. This 1992 Memorandum of Understanding (MOU) included a commitment (Section 3.F.) to build a pedestrian bridge across the The 1992 MOU is considered the genesis of the Bikeway/Pedestrian Bridge over the River (proposed action).

Any modification to the Federal Project requires approval from USACE. Therefore, the City has requested a Section 408 permission to construct, operate, and maintain the proposed bridge.

1.2 Location

The proposed action would be located across the River and in the surrounding area in the Area in the City of . Specifically, the northern abutment of the proposed bridge would be located adjacent to , and its southern abutment would be located adjacent to the River (bikeway), approximately between Street and Place, adjacent to in the City of . **Figure 1.1.-1** shows the project's regional location and **Figure 1.1-2** project locations.

1.3 Purpose of and Need for Action

The USACE has determined the purpose of the project is to construct a pedestrian access system linking the communities of and located east and west of . The need of the project is to provide increased commuting and recreational access to the existing river bike path and to the roadway bike lanes along Boulevard.

1.4 Authority

33 U.S.C. SECTION 408 AUTHORITY AND GUIDANCE

The authority to grant permission for temporary or permanent use, occupation or alteration of any USACE federally authorized civil works project is contained in Section 14 of the Rivers and Harbors Appropriation Act of 1899, as amended, codified at 33 U.S.C. 408 ("Section 408"). Section 408 authorizes the Secretary of the Army, on the recommendation of the Chief of Engineers, to grant permission for the alteration or occupation or use of a USACE project if the Secretary determines that the activity will not be injurious to the public interest and will not impair the usefulness of the project. An alteration is considered to be "any action by any entity other than USACE that builds upon, alters, improves, moves, occupies, or otherwise affects the usefulness, or the structural or ecological integrity, of a USACE project. Alterations also include actions approved as 'encroachments' pursuant to 33 CFR 208.10" (Engineering Circular [EC] 1165-2-216). Section 408 authority only applies to alterations proposed within the lands and real property interests identified and acquired for the USACE project and to lands available for USACE projects under the navigation servitude. According to EC 1165-2-216, "[r]outine operations and maintenance (O&M) activities specified in the O&M manual and performed by the non-federal sponsor or USACE do not require permission from USACE under Section 408." The Secretary of Army's authority under Section 408 has been delegated to the USACE Chief of Engineers. The USACE Chief of Engineers has further delegated the authority to the USACE Directorate of Civil Works, Division and District Engineers, and Supervisory Division Chiefs depending upon the nature of the activity.

In EC 1165-2-216, USACE has issued policy and guidance for processing Section 408 requests. EC 1165-2-216 clarifies that a decision on a Section 408 request is a federal action, and therefore subject to NEPA and other environmental compliance requirements.

2.0 ALTERNATIVES

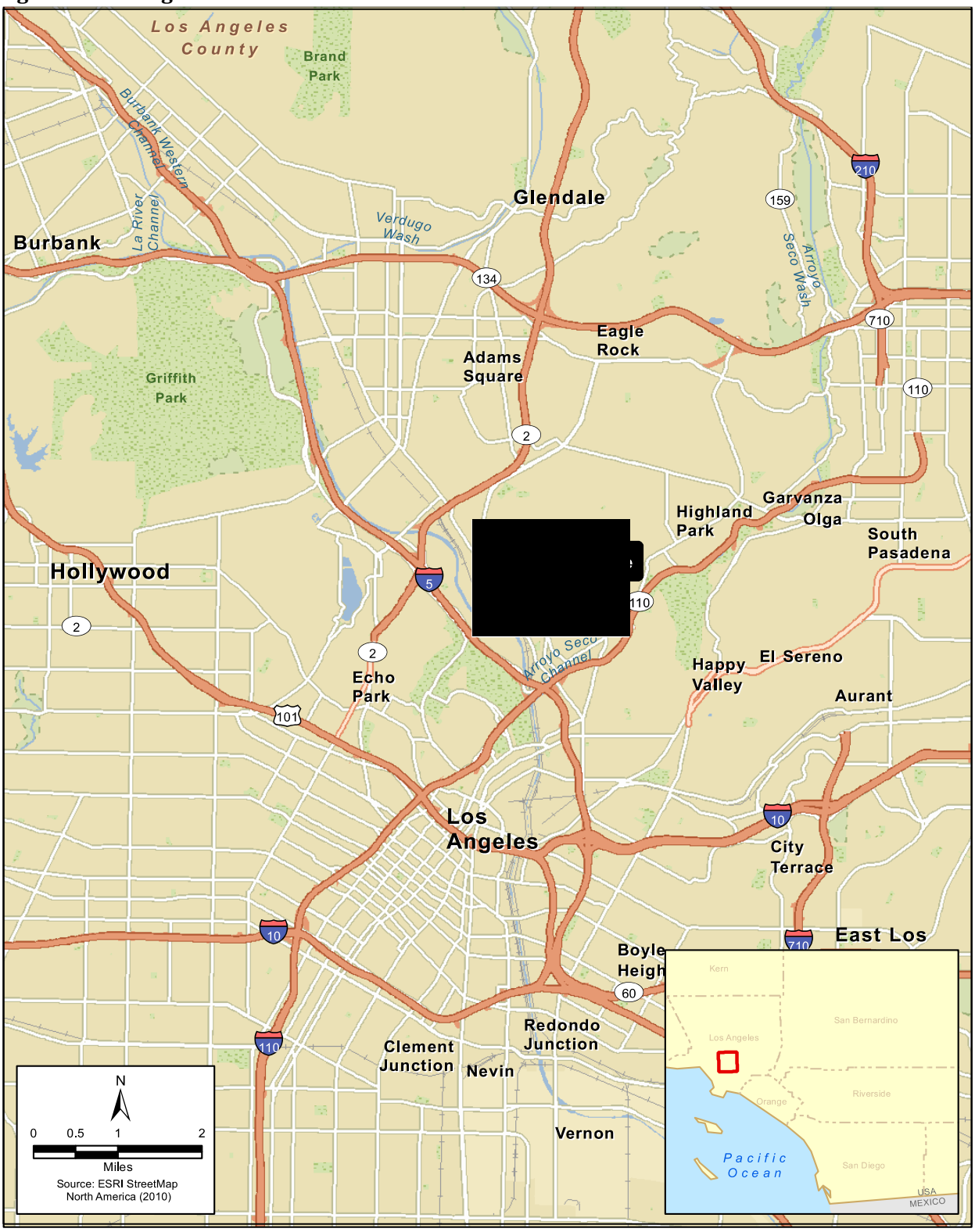
Per CEQ NEPA guidance, only reasonable alternatives should be discussed in detail (40 CFR §1502.14). Additionally, EC 1165-2-216 clarifies that for Section 408, reasonable alternatives should focus on two scenarios: 1) no action and 2) action. This document evaluates two alternatives, the No Action Alternative and the Preferred Alternative, as described below.

No Action Alternative. The No Action Alternative is a no Federal action alternative. Under the No Action Alternative, no construction of the bridge would occur. Travel patterns for pedestrians and bicyclists would remain unchanged. No pedestrian access system linking the communities of [redacted] and [redacted] located east and west of [redacted] would be developed at this location.

Preferred Alternative/Proposed Action. Under the proposed action, the Applicant would construct a multi-modal bridge spanning approximately 400 feet over the [redacted] River between [redacted] on the west and [redacted] on the east. The proposed bridge would be designed for bicycle and pedestrian use, and would also support emergency vehicles. The proposed steel-framed bridge would be approximately 400 feet long and would be supported on abutments and a concrete pier in the central portion of the channel. The bridge structure itself would be approximately 30 feet high by 26 feet, 2 inches wide. The width of the pedestrian and bikeway path would be approximately 18 feet. On the south, the proposed bridge would connect with the existing [redacted] River [redacted] (bikeway) along the river. On the north, a 300-foot-long bike path ramp would be constructed to connect the [redacted] with the adjacent community and public street system.

The abutment to the north would be located along the [redacted] River access road and the abutment on the south side would be located along the existing [redacted] River [redacted]; both abutments would be on the top of the channel banks. The abutment on the north side would include the construction of a retaining wall that will range in height from about 2 to 20 feet. The bridge structure itself would be approximately 30 feet high by 26 feet, 2 inches wide. The width of the actual pedestrian and bikeway path would be approximately 18 feet. The pedestrian and bikeway path would descend to the south at an inclination of approximately 3 percent.

Figure 1.1-1: Regional Location



Source: ICF International, 2016.

Figure 1.1-2: USACE Jurisdictional Boundaries

Source: ICF International, 2016.

The proposed design would minimize the disruption of the waterway as well as minimize structural supports in the river. The bridge design would include a foundational support pier in the riverbed, which is soft-bottomed in this area. Except for the pier, the bridge would be located above the river's cross-sectional flow area. The proposed bridge would cross land within the jurisdictions of the City, [redacted] County Flood Control District, and USACE.

Materials. The bridge structure would be composed of the following components: concrete, reinforcing steel, structural steel, structural fasteners, bolts, nuts, washers, stud shear connectors and welded metals.

- Concrete would be used for the cast-in-place deck, bike path ramps, central pier support, cast-in-drilled-hole (CIDH) piles, and bridge adjacent retaining wall.
- Reinforcing steel would be used to reinforce the pier wall, CIDH piles, bridge deck and ramps.
- Masonry would be used for the retaining wall along [redacted] Road.
- Bridge members would be made from hollow square-section structural steel.
- Structural fasteners, bolts, nuts, washers, stud shear connectors would be used as connection materials for the structural steel bridge members, and metals would be used for the railing.

Construction. The proposed bridge construction would require an orchestrated approach to the sequence of construction. Work in the [redacted] River would occur, from April 1 to October 31, and would require an active approach to avoid adversely affecting the surrounding environment and water quality.

From April to October, a work platform will be created over the [redacted] River bottom to keep vehicles and workers out of the rocky, muddy or sandy bottom surface. A construction crane would be used to install the structural steel truss segments which compose the bridge. Specifically, the bridge truss sections would be fabricated off-site, and assembled in a staging area adjacent to the north channel slope, and brought down via construction platforms/ramps to the [redacted] River bottom, where cranes would be utilized to lift the structural steel sections in the proper place, without disrupting the river habitat, which helps to reduce construction cost and construction time. The staging area would also facilitate the movement of smaller components, equipment, and materials to and from the project site.

Construction Schedule. Construction is estimated to take approximately 30 to 32 months. This duration accounts for a six-month window, from October to April, in which no construction activities can occur in the river because of seasonally high hydraulic flows. However, to make the best use of time during those months, some construction activities would continue to occur outside the [redacted] River channel banks. Project construction would generally consist of five phases: mobilization, site preparation, site work, steel fabrication, and architectural finishing. Details for each of the five phases are provided:

Mobilization. Contractor mobilization would occur during an approximately two-week period of time and would involve the set-up of construction trailers, office equipment, utility connections, equipment storage yard, welding housing unit, and protective fencing. During this time, detours would be established and project construction signs would be posted. No actual work would take place within the [redacted] River channel banks.

Site Preparation. Site preparation involves clearance of the site and preparing the project area for construction. Site preparation activities will vary depending on the season which the contractor will work. At the start of the contract, site preparation activities would occur over a period of approximately three weeks which will consist of clearing and grubbing of vegetation, including trees, shrubs, as well as cleaning and preparing of all areas cleaning of surfaces where construction would take place would be started.

From April 1 to October 31, site preparation activities would occur over a period of one month in the [redacted] River channel. This would include the installation of construction ramps, which would be used to access the channel, and water diversions to redirect the channel away from work zone. Water quality best management practices and erosion control activities would also occur, as needed.

Heavy equipment, including cranes, front-end loaders, boom lifts, forklifts, power tools, heavy-/light-duty trucks, and construction materials, would arrive at the construction site from [redacted] Road and be stored in the construction staging

area. A selection of these would be utilized during the site preparation phase and throughout the rest of the construction phases.

Site Work. The site work phase would consist of installation of foundation, superstructure, bike ramps on both sides (north and south) of the bridge, and site improvements.

Foundation. The foundation elements would consist of installation of CIDH piles with pile caps and a center pier, which would entail penetrating the channel liner, shoring, excavating, installing a rebar cage, forming, and pouring piles. This foundation construction is estimated to take approximately six months. Equipment utilized during the foundation construction phase would include drill rigs, cranes, backhoes, flat-bed trucks, demolition equipment, concrete trucks, water trucks, and heavy & light-duty trucks.

Superstructure. The superstructure elements would involve the erection of the steel truss segments and construction of the cast-in-place deck. Five steel truss segments would be erected in sequence. This would consist of self-propelled transporter machines carrying truss segments down the construction ramp from the staging area, which would then be lifted from the transporter by cranes and placed on the south abutment (segment 1) and along a series of temporary supports (segments 2–5), spanning from the south to north abutment. As these steel truss segments are moved, they would be aligned by bolted and welded connections. This erection of the steel truss segments is estimated to take approximately six months. Equipment utilized during the erection of the steel truss segments would include cranes, forklifts, boom lifts, welding tools, power tools, heavy & light-duty trucks, and a specialized transporter, which would travel up and down the construction ramp. Additionally, another superstructure phase would involve constructing the cast-in-place deck. Equipment utilized during the deck construction would include boom lifts, concrete trucks, heavy-/light-duty trucks, and power tools.

Site Improvements. The site improvement elements would include some minor landscaping on either side of the bridge. Site improvements are estimated to take approximately one to two months. Activities performed during site improvements would include grading, planting, pouring concrete, and painting. Equipment utilized during site improvements would include concrete trucks, front-end loaders, compactors, heavy & light-duty trucks, manual stripe painting tools, and power tools.

Steel Fabrication. Portions of this phase of construction would occur concurrent with the site work phase, including finalization of shop drawings and fabrication of components. The estimated timeframe for steel fabrication is approximately seven to eight months which includes the procurement of steel sections for the bridge and fabrication of the steel sections on the on-site staging area. Typical on-site fabrication activities include welding of vertical and horizontal truss elements to their stubs protruding from the continuous top and bottom chords to form the closed box section for the three-bays-long truss segments, shot blasting the exterior surface of these welded joints, and painting these welded splices before erection.

This work would then be brought to the bridge site in sequence and components stored on-site until erected. See the paragraph on superstructure work above for a detailed narrative on the erection sequence. Delivery of bridge components would occur along [redacted] Road, which is adjacent to the staging area. Fabrication of steel will take approximately four to five months and assembly of the steel sections in the staging areas of the steel is estimated to take approximately four months. Equipment utilized during the steel fabrication phase will be cranes, forklifts, heavy & light -duty trucks, and power tools.

Architectural Finishing. During this phase of construction, the deck finishing, handrails, lighting, and other architectural details would be installed. This work would occur over a period of approximately two to three months and take place outside and above the [redacted] River Channel. Equipment utilized during this phase of construction would include small cranes, boom lifts, light & heavy-duty trucks, and power tools.

Operation and Maintenance. Once the project has been completed, the City of [redacted] will be responsible for operation and maintenance of the bridge. Primary responsibilities for the City of [redacted] would include the maintenance and upkeep of the bridge for use by USACE maintenance crews, first responders, pedestrians, and bicyclists. Maintenance activities include periodic inspections and repair of the retaining walls, abutments, pier, deck and steel-frame, bridge accessories, and architectural components. Use of vehicles or equipment would be limited to

these related activities. The bridge would be open to the public and maintenance or repair from the bridge deck that would not alter the federal project do not require coordination with USACE. Access below the top of bank of the channel or alteration of the federal project would require coordination with the USACE [redacted] District.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL EFFECTS

3.1 Biological Resources

3.1.1 Affected Environment

The [redacted] River watershed is located in a [redacted] climate region characterized by highly seasonal precipitation and temperature patterns that occur annually, with hot, dry summers, and cool, wet winters predominating. Inter-annual variability in precipitation is a key characteristic of the region.

Like most [redacted]-climate streams, flows in the [redacted] River often occur as a single annual flow peak in winter, although the frequency of these events can be highly episodic and variable inter-annually, with dramatic shifts between the two extremes of flow-flood and flow-cessation. Urban development (i.e., increase in impervious surface) coupled with flood risk-related modifications of the river channel have led to large-scale changes in the patterns of energy and matter distribution throughout the watershed, including evapotranspiration rates, surface runoff, discharge, nutrient availability (nitrogen and phosphorus), soil erosion, and sedimentation (He et al. 2000). As consequence of these changes, the volume and timing of streamflow in the [redacted] River has been altered, both spatially and temporally, from that of a typical [redacted]-climate river. This has substantially influenced the structure and composition of its natural communities [redacted] 2005).

Vegetation

Along the soft-bottomed reaches of the [redacted] River, vegetated riparian areas occur as isolated stands or narrow bands within the stream channel. These in-channel riparian habitat corridors are typically comprised of braided courses of open water interspersed with a mosaic of native and non-native/ruderal plant species occurring on rocky sediment and sand bar "islands". The only natural vegetative communities represented within the proposed project area consists of species associated with the [redacted] woodland. [redacted] are characterized by a deciduous woodland canopy that typically extends above the surrounding vegetation, with black willow ([redacted]) as the dominant canopy species. Other species that may occur in the canopy and sub-canopy include [redacted]'s cottonwood ([redacted]), arroyo willow ([redacted]), red willow ([redacted]), and white alder ([redacted]). The understory can be dense to open and frequently consists of shrubs and small arboreal species three to sixteen feet tall, including mulefat ([redacted]), coyote brush ([redacted]), sandbar willow (*Salix exigua*), and black elderberry (*Sambucus nigra*). The herbaceous stratum varies in composition and coverage but is characterized by mixed annuals and short-lived perennials. Large areas of river bottom are also dominated with dense, monotypic stands of non-native and invasive arundo (*Arundo donax*).

The remainder of the land cover comprises developed and disturbed/ruderal cover types. Developed lands are associated with the residential structures and surface roads within the study area and includes ornamental and landscaped vegetation typically associated with developed areas. Disturbed/ruderal areas are dominated by non-native and native annual and perennial species such as wild oat (*Avena fatua*), black mustard (*Brassica nigra*), telegraphweed (*Heterotheca grandifolia*), cheeseweed (*Malva parviflora*), and Bermuda grass (*Cynodon dactylon*). These are upland species growing in narrow strips at the tops of the levee in between developed portions of the project corridor.

A jurisdictional delineation was prepared for the project, which is attached in **Appendix B**. The City would coordinate with the Corps Regulatory Division to utilize a Preliminary Jurisdictional Determination and assume jurisdictional waters of the U.S.

Wildlife

Because of the project area's urban setting and surrounding land uses, wildlife species that occur there are generally tolerant of human activity, and extremely modified landscapes. No fish native to the [redacted] River watershed are expected to occur in open water areas within the Proposed Project Area. Past surveys upstream of and within the Proposed Project Area ([redacted] have only collected non-native fish species including fathead minnow (*Pimephales promelas*), carp (*Cyprinus carpio*), black bullhead (*Ameiurus melas*), Amazon sailfin catfish (*Pteroplichthys pardalis*), green sunfish (*Lepomis cyanellus*), bluegill (*Lepomis macrochirus*), mosquito fish (*Gambusia affinis*), tilapia (*Oreochromis* spp.), and largemouth bass (*Micropterus salmoides*). Mosquitofish and tilapia were the most prevalent fish species captured within the proposed project area.

The abundance of native bird species is limited by habitat quantity and quality within the study area, diversity of native birds in the proposed project area fluctuates with seasonal migration and can be relatively high. Resident birds use the existing small and intermittent pockets of vegetation along the waterway to nest, roost, as a base for feeding, and to take cover. Bird species commonly associated with urban areas are abundant within the study area including: rock dove (*Columba livia*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), and house finch (*Carpodacus mexicanus*). Migratory species protected under the Migratory Bird Treaty Act include shorebirds, wading birds, passerines, and ducks of the pacific flyway.

Marginally suitable habitat for three species listed under the Endangered Species Act of 1973, as amended, occurs within the proposed project area. The Southwestern willow flycatcher (*Empidonax traillii extimus*), least Bell's vireo (*Vireo bellii pusillus*), and Western yellow-billed cuckoo (*Coccyzus americanus*) have historically occurred in riparian corridors within the [redacted] River watershed. Protocol-level avian surveys were conducted between April and July of 2016 (**Appendix A**). No federally listed avian species were observed in the proposed project area. Follow-up reconnaissance surveys were conducted by [redacted], staff biologist with the USACE, in July of 2017, and June of 2018, respectively. No federally listed avian species were observed in the proposed project area.

Seven species of bats are reported to occur within the surrounding area: big free-tailed bat (*Nyctinomops macrotis*), hoary bat (*Lasiurus cinereus*), pallid bat (*Antrozous pallidus*), pocketed free-tailed bat (*Nyctinomops femorosacca*), silver-haired bat (*Lasionycteris noctivagans*), western mastiff bat (*Eumops perotis*), and western yellow bat (*Lasiurus xanthinus*) (Appendix D; CDFW 2016b). Marginally suitable roosting habitat for the hoary bat, silver-haired bat, and western yellow bat occurs within the mature trees located onsite. Potential roosting habitat for pallid bat occurs within the abandoned buildings and overpasses within the project area. No roosting habitat occurs for big free-tailed bat, pocketed free-tailed bat, or western mastiff bat, as high cliff faces, rock outcrops, and rugged arid landscapes are absent from the project area. Low quality foraging habitat for bats is present along the [redacted] River, although lighting and noise disturbance from the surrounding developed areas would likely deter bats from extensive use of the area. No direct observation of bats, or their sign (guano) were observed within the study area by biologists conducting surveys in 2016.

No [redacted] Department of Fish and Wildlife (CDFW) sensitive vegetation communities, U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS) designated critical habitat, or Essential Fish Habitat occurs within the proposed project area (National Oceanic and Atmospheric Association [NOAA] 2016; USFWS 2016a).

3.1.2 Environmental Consequences

No Action Alternative. Under the No Action Alternative, the project site would remain in pre-project conditions. No construction would occur and impacts related to the loss of riparian vegetation or sensitive/threatened species would not occur.

Preferred Alternative/Proposed Action

Vegetation. The proposed project was assessed in a biological resources and habitat assessment, attached in **Appendix A**. [redacted]-Disturbed vegetation within the work zone where construction access, water diversion, bridge installation, and pier work will take place would be removed. Therefore, temporary and short-term impacts on riparian habitat would occur from the removal of riparian vegetation within the work zone. In addition, impacts related

to the spread of invasive vegetation could occur due to potential introduction of invasive seed from construction equipment. Even though [redacted] habitat would be removed, the habitat is considered degraded and consists primarily of non-native, invasive species. There are no species listed as federally endangered or threatened within the project study area. The [redacted] habitat is within the aquatic environment. No upland habitat would be impacted because the uplands are concrete or developed. The project would result in temporary impacts on vegetation in the aquatic environment within the project area through disturbance and/or removal of existing vegetation. The proposed project would permanently impact approximately 0.01 acre of jurisdictional waters of the [redacted] through the construction of a single concrete structural support pier in the middle of the [redacted] River channel and temporary impacts to approximately 0.56 acre of waters of the [redacted] through the removal of riparian vegetation within the [redacted] channel. Permanent impacts may include the indefinite removal of existing vegetation from around the pier to facilitate maintenance. Temporary and indirect impacts may include incidental disturbances to wetland vegetation within construction areas, equipment staging, and temporary construction access routes. The project would not result in any significant impacts to vegetation.

The City has designed the proposed project with the minimum necessary impacts to be able to construct the proposed pedestrian facility. Also, onsite indirect impacts would be minimized by the requirement to maintain disturbed waters of the [redacted] and adjacent slopes free of non-native species for a minimum of two years. Moreover, it is expected this would minimize potential infestation from non-native plants of the drainage features from the adjacent slopes disturbed during construction.

The Environmental Commitment measures, listed below, would be implemented to ensure effects to vegetation are minimized.

Wildlife. The project would not affect any listed species or designated critical habitat protected under the Endangered Species Act since they do not occur in the project study area. The proposed project is not expected to cause any permanent obstructions to wildlife movement within the [redacted] River. Some temporary effects to wildlife movement and habitat connectivity may occur during the construction phase. Highly visible barriers and fencing would be utilized to keep wildlife out of the construction zone and avoid harm from heavy construction equipment.

Although, no bat sign was observed at the time of field surveys, bat roosts can change locations seasonally and there is a potential for bat species to roost in the large trees located within the study area. These effects are anticipated to be temporary since roosting habitat within the study area is low quality and would likely only be used as night roosts. Nonetheless, habitat that is suitable for bat use should be reexamined prior to the start of project construction to ensure that no roosting bats are present.

Implementation of the Environmental Commitment measures below and **WQ EC-1 to 9**, would ensure effects to wildlife are minimized. The project would not result in any significant impacts to wildlife.

Environmental Commitment Measures

Implementation of the proposed project would not result in significant impacts related to biological resources. No mitigation measures are required, but Environmental Commitment measures will be required to ensure temporary and permanent impacts to biological resources remain minimized.

BIO EC-1: At the conclusion of the project, all temporary fill shall be removed and the area shall be restored to pre-construction conditions (contours and vegetated condition) to the maximum extent practicable. The Permittee shall ensure the previously disturbed areas are maintained and monitored for a period of two years after completing the seeding activities, such that less than 10 percent of the areas disturbed by the project are vegetated by non-native and invasive plant species. Monitoring reports shall be submitted by the Permittee to the [redacted] District Regulatory Division, by May 15th annually, one and two years following hydroseeding, documenting the recovery of the restored areas.

BIO EC-2: Construction limits of the authorized temporary impact zone will be clearly demarcated using highly visible barriers (such as silt fencing), which will be installed under the supervision of a qualified biologist prior to the commencement of work. Construction personnel will strictly limit their activities, vehicles, equipment, and construction

materials to the project footprint, including designated staging areas, and routes of travel. The construction areas will consist of the minimal area necessary to complete the proposed project. The fencing will remain in place until the completion of all construction activities. All activities must remain within the authorized temporary and permanent impact zones.

BIO EC-3: A qualified biological monitor will conduct construction monitoring during all vegetation removal, work within the [redacted] River and ground-disturbing activities, such as staging and grading, for the duration of the project to ensure that practicable measures are being employed to avoid incidental disturbance of habitat outside the project footprint and to survey for sensitive wildlife species. When vegetation removal and ground-disturbing activities are not occurring, as-needed monitoring at the project site will occur. Monitoring logs, as appropriate depending on project activities, will be maintained for the duration of the construction activity.

BIO EC-4: Construction equipment will be cleaned of mud or other debris that may contain invasive plants and/or seeds and inspected to reduce the potential of spreading noxious weeds before mobilizing to the site and before leaving the site during the course of construction. The cleaning of equipment will occur at least 300 feet from environmentally sensitive area fencing.

BIO EC-5: To avoid impacts to avian species protected under the Migratory Bird Treaty Act, removal of any vegetation within the proposed project's construction footprint shall occur outside of the migratory bird breeding season (March 1 through September 15).

BIO EC-6: To avoid impacts to roosting arboreal bats, trees shall only be removed during the months outside of the maternity and fledging season (April 1 through September 15).

BIO EC-7: If construction occurs during the bird breeding season, preconstruction surveys for nesting birds shall occur prior to construction activities by a qualified avian biologist. The surveys shall occur within all suitable nesting habitat within the project's impact area, and a 500-foot buffer. If nesting birds are found, an avoidance area will be established in consultation with the [redacted] The area around each nest would be monitored by a qualified avian biologist until it is determined that the young have fledged or nesting activities have ceased. The same area (project site and buffer) would be re-surveyed if there is a lapse in construction activities for more than **three** days during the bird breeding season.

BIO EC-8: No construction equipment shall be stored in a manner which obstructs wildlife movement through the riverine habitat during non-operational construction hours. No equipment or machinery will be stored in the [redacted] River channel when not in use.

3.2 Air Quality

3.2.1 Affected Environment

National Ambient Air Quality Standards

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

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

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. Thus, a federal action must not:

- Cause or contribute to any new violation of a [redacted].
- 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 the General Conformity applicability rates specified in 40 C.F.R. section 93.153. Operation and maintenance emissions are considered exempt under 40 C.F.R. 93.153, therefore they are not included in the total direct and indirect effects of the federal action.

The project site is in the [redacted] ([redacted]). The [redacted] is composed of [redacted] and the urban, non-desert portions of [redacted], [redacted] and [redacted] Counties. The climate of the [redacted] is determined primarily by terrain and geography. Local climactic conditions are characterized by warm summers, mild winters, infrequent rainfall, moderate daytime on-shore breezes, and moderate humidity. The [redacted]'s normally mild climate is occasionally interrupted by periods of hot weather, winter storms, and hot easterly [redacted] [redacted].

Table 3.2-1 summarizes the federal attainment status of the [redacted] County portion of the [redacted].

Table 3.2-1. Federal Attainment Status for Criteria Pollutants

Pollutant	Attainment Status	General Conformity Applicability Rates (tons/year)
Ozone (VOC)	Nonattainment, extreme	10
CO	Attainment/Maintenance	100
NO2	Attainment/Maintenance	100
SO2	Attainment	100
PM10	Attainment/Maintenance	100
PM2.5	Nonattainment	100
Pb	Nonattainment	25

The [redacted] is currently in extreme nonattainment for ozone (precursors: VOC or NOx); nonattainment for PM2.5; attainment/maintenance for PM10; attainment/maintenance for NO2; attainment/maintenance for CO; and nonattainment for lead. Based on the present attainment designation for the [redacted], a federal action would conform to the SIP if annual emissions are below 100 tons of CO, PM2.5, PM10, or N02, 10 tons of VOC, or 25 tons of lead.

Greenhouse Gases

Gases that trap heat in the atmosphere are often called greenhouse gases (GHG). GHGs are emitted by natural processes and human activities. Examples of GHGs that are produced both by natural processes and industry include carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). Currently, there are no Federal standards for GHG emissions and no Federal regulations have been set at this time.

Emission Estimates Methodology

Emissions were estimated using [redacted] emission modeling software (**Appendix C**).

Estimates of lead emissions were not calculated. Lead emissions from mobile sources in [redacted] have significantly decreased due to the near elimination of lead in fuels. Thus, [redacted], the [redacted]-approved emission modeling software, does not provide estimated emissions for lead.

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 O3 formation, [redacted] does not provide estimates for the compound. Instead, the emission estimates for VOCs is used as a surrogate for reporting O3 emissions per the General Conformity Applicability Rates. Since the consumption of VOC in O3 formation reaction is variable, actual O3 levels are lower than those reported.

3.2.2 Environmental Consequences

No Action Alternative. Under the No Action Alternative, the project site would remain in pre-project conditions. No construction would occur and impacts related to air quality and objectionable odors would not occur.

Preferred Alternative/Proposed Action

General Conformity. As part of the environmental review of the federal action, a general conformity evaluation has been completed pursuant to 40 C.F.R. 93.153. The general conformity regulations apply because the project is situated in [redacted] County within the [redacted], and the County is designated as a nonattainment area for ozone, $PM_{2.5}$, and Pb, as well as a maintenance area for PM_{10}, NO_2 and CO.

Table 3.2-2. Comparison of Estimated Annual Emissions to General Conformity Applicability Rates

Pollutant	General Conformity Applicability Rates (tons/year)	Estimated Construction Emissions (tons/year)		
		2018	2019	2020
Ozone (VOC)	10	0.7	2.5	1.2
CO	100	4.8	5.0	2.2
NO2	100	5.7	5.3	1.8
SO2	100	0.0	0.0	0.0
PM10	100	0.4	0.4	0.4
PM2.5	100	0.3	0.3	0.1
Pb	25	0.0	0.0	0.0

For all pollutants, the emissions associated with construction of the federal action would be less than the applicability rates. Therefore, a general conformity determination is not required. Little to no quantifiable and foreseeable lead emissions would be generated by the construction or operations of the proposed project. The proposed project would have no significant impacts on air quality.

GHG Emissions. Per discussion of GHG above, the estimated GHG emissions are included for the purpose of disclosure under NEPA.

Table 3.2-3. Estimated GHG Emissions (MT/year)

Pollutant	Estimated Construction Emissions (MT/year)			Operation
	2018	2019	2020	
GHG	441	324	86	21

Objectionable Odors. Although offensive odors rarely cause physical harm, they can be unpleasant and lead to considerable distress among the public. According to [redacted]'s *Air Quality and Land Use Handbook*, land uses associated with odor complaints typically include sewage treatment plants, landfills, recycling facilities, and manufacturing facilities (CARB, 2005). Short-term objectionable odors during construction of the proposed action would be associated with the use of diesel-powered construction equipment and on-road vehicles. During construction activities, odors would mostly occur on-site, would be short-term and transient. Any odors during routine maintenance during project

operation would also be minor and transient. Therefore, construction and operation of the proposed action would not create objectionable odors that would affect a substantial number of people. There would be no significant impacts to air quality due to objectionable odors.

3.3 Noise

3.3.1 Affected Environment

The primary existing noise sources in the project area are traffic on local streets (including [redacted] Road, located northeast of the project site), occasional aircraft overflights, trains operating on the active railroad track located on the north side of the [redacted] River, and general neighborhood activities such as landscaping. The closest noise-sensitive receptors to the project site are residences (multi- and single-family residences). The southern portion of the project site (south of the [redacted] River) is surrounded by both light industrial land uses and single-family residences. The northern portion of the project site (i.e., the construction areas located north of the [redacted] River), is located close to multi-family residential land uses. **Figure 1.1-2** shows the project site and surrounding area. Noise in this residential area is governed by the [redacted] Code.

In order to document the existing noise environment, short-term noise measurements (of approximately 10 to 20 minutes in duration) were obtained at three locations in the vicinity of the project site; long-term measurements were obtained at two additional locations in order to characterize the 24-hour noise environment.[1] Details and a summary of the measurement results are provided in **Tables 3.3-1** and **3.3-2**. Because construction activity is only permitted by the City between the hours of 7:00 a.m. and 7:00 p.m., the 12-hour average noise level, L_{eq} (12), between these hours is also noted where available from the long-term noise monitoring.

Table 3.3-1. Summary of Short-Term Noise Measurements

Short-Term Measurement Number and Location Description	Measured Noise Levels, dBA			
	Date, Time	L_{eq}	L_{min}	L_{max}
ST-1, east of project site, near the intersection of [redacted] St. and [redacted] Rd. /a/	2/16/2016 12:07 p.m. – 12:18 p.m. 2:18 p.m. – 2:38 p.m. Average	 62.6 54.1 60.2	 53.9 51.4	 75.4 58.9
ST-2, south of project site, in front of [redacted] Place	2/16/2016 1:02 p.m. – 1:27 p.m.	 47.1	44.8	54.2
ST-3, south of project site, in front of [redacted] St.	2/16/2016 1:41 p.m. – 2:01 p.m.	 49.4	 47.7	 53.1
/a/ Two measurements were taken at ST-2. The first measurement included high levels of activity on the railroad, so a second measurement was conducted to capture a quieter period of the day. These two samples were then combined to produce a more representative average noise level.				

Source: ICF International, 2016.

Table 3.3-2. Summary of Long-Term Noise Measurements

Long-Term Measurement Number and Location Description	Measured Noise Levels, dBA				
	Date	CNEL	12-hour L_{eq}, 7 a.m. to 7 p.m.	L_{min}	L_{max}
LT-1, south of project site, in front of [redacted] Pl. /b/	8/16/2016	-	56.6	45.5	78.0
LT-2, south of project site, near [redacted] Ave. /a,c/	8/17/2016	63.9	54.8	43.6	91.6
/a/ Measurements are for August 17, which is the only day with a complete 24-hour data set. /b/ Leq is the average for the four daytime hours (3:00 p.m. to 7:00 p.m.) before equipment power failure. /c/ Noise levels between 12 noon and 2:00 p.m. have been excluded from the calculations because they appear to be contaminated with extraneous noise that generated untypically high noise level.					

Source: ICF International, 2016.

[1] Long-term measurement LT-2 was cut short due to a power failure and only gathered five hours of data.

3.3.2 Environmental Consequences

No Action Alternative. Under the No Action Alternative, the project site would remain in pre-project conditions. No construction would occur and impacts related to increased ambient noise levels or noise related abandonment of riparian avian species would not occur.

Preferred Alternative/Proposed Action

Construction. Project construction is estimated to take approximately 30 to 32 months, and construction hours would generally be Monday through Saturday, from 7:00 a.m. to 7:00 p.m. Construction noise levels would fluctuate, depending on the construction phase, equipment type, duration of use, distance between noise source and listener, and the presence or absence of barriers or intervening structures. Noise sensitive land uses are located in the project vicinity on both the north and south sides of the [redacted] River.

Bridge Construction. The construction activity proposed for the bridge portion of the project with the greatest potential to affect noise-sensitive land uses is the construction phase involving the mobilization of equipment, installation of the center pier (which includes the installation of the base platform, demo of the channel liner, and the concrete pile pour). This construction work has the potential to affect noise-sensitive land on both sides of the river due to the high noise levels associated with the equipment required for this type of work.

Construction would occur closer to receptors south of the bridge than north of the bridge, but may be audible at noise-sensitive land uses on both sides of the river. The closest residential receptors on either side of the bridge are R1 through R4. Refer to **Table 3.3-3** for the modeled construction noise levels and potential impacts from bridge construction at receptors R1 through R4.

Table 3.3-3 shows the bridge construction is expected to result in noise levels that exceed the existing ambient noise levels in the vicinity of the project by 2 to 6 dBA, with noise increases of 5 dBA or more at receivers R3 and R4 (both of these receivers are south of the Los Angeles River).

Table 3.3-3. Modeled Construction Noise from Bridge Construction – Both Sides of [redacted] River

Receptor	Distance from Construction Activity (feet) /a/	Modeled Construction Noise Level (dBA)	Estimated Existing Ambient L_{eq} (dBA)	Net Increase (dB)
R1	840	62	60 /c/	2
R2	895	62	60 /c/	2
R3	470	62 /d/	57 /e/	5
R4	435	63 /d/	57 /e/	6

Source: ICF International, 2016.

During construction of the project, the City proposes to implement a noise control plan, Environmental Commitment measure **NOISE EC-1**, to ensure the maximum noise levels are not exceeded during construction. The project would have no significant impacts due to construction noise.

Operations. Proposed uses associated with the project (individuals walking or riding bikes) are not considered to be noise-producing. The project would have no significant impacts during operation due to noise.

Environmental Commitment Measures

NOISE EC-1: The noise control plan would be developed to reduce construction noise levels such that the ambient noise level is not exceeded by 5 dBA, as determined by a qualified acoustical consultant. Ambient noise increases due to powered equipment are not allowed to exceed 5 dBA in residential areas according to [redacted] Municipal Code (Chapter XI, Section 112.04). The plan shall require:

- Construction contractors shall specify noise-reducing construction practices that will be employed to reduce noise from construction activities. The measures specified by the project sponsor shall be reviewed and approved by the City prior to the issuance of building permits. Measures that can be used to limit noise include, but are not limited to, those listed below.
    - Locating construction equipment as far as feasible from noise-sensitive uses.
    - Requiring that all construction equipment powered by gasoline or diesel engines have sound control devices that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation.
    - Not idling inactive construction equipment for prolonged periods (i.e., more than two minutes).
    - Prohibiting gasoline or diesel engines from having unmuffled exhaust systems.
    - Using noise-reducing enclosures around noise-generating equipment that has the potential to disturb nearby off-site land uses or where otherwise necessary to comply with City Code noise limits for receiving zones.
    - Ensuring that equipment and trucks used for project construction utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, intake silencers, ducts, engine enclosures, acoustically attenuating shields or shrouds) wherever feasible.
    - Monitoring the effectiveness of noise attenuation measures by taking noise measurements.
- Construction activities shall be prohibited outside the hours of 7:00 a.m. to 9:00 p.m. on Monday through Friday and 8:00 a.m. to 6:00 p.m. on Saturdays and national holidays. No construction activity shall occur at any time on Sundays. Construction personnel shall not be permitted on the project site (including laydown and storage areas), and material or equipment deliveries and collections shall not be permitted during the prohibited hours.
- All construction equipment used on the proposed action that is regulated for noise output by a local, state, or federal agency shall comply with such regulation while in the course of project activity and use on-site.
- All construction equipment shall be properly maintained. (Poor maintenance of equipment may cause excessive noise levels.)
- The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.
- Impact tools (e.g., jack hammers, pavement breakers, rock drills) used for project construction shall be hydraulically or electrically powered (where feasible) to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. Quieter procedures shall be used, such as drills rather than impact equipment, where feasible.
- Construction contractors shall be required to use “quiet” gasoline-powered compressors or electrically powered compressors and electric rather than gasoline- or diesel-powered forklifts for small lifting, where feasible.
- Stationary noise sources, such as temporary generators, shall be located as far from nearby receptors as possible; they shall be muffled and enclosed within temporary enclosures and shielded by barriers, to the extent feasible.
- Construction employees shall be trained in the proper operation and use of the equipment. (Careless or improper operation or inappropriate use of equipment can increase noise levels. Poor loading, unloading,

excavation, and hauling techniques are examples of how a lack of adequate guidance and training may lead to increased noise levels.)

- Construction equipment shall be stored on the project site or designated laydown areas while in use, to the extent feasible. This will eliminate noise associated with repeated transportation of the equipment to and from the site.
- Prior to the issuance of the building permit, along with the submission of construction documents, the project sponsor shall submit to the Planning Department and Department of Building Inspection a list of measures for controlling noise and responding to and tracking complaints pertaining to construction noise. These measures shall include:
    - Identification of measures that will be implemented to control construction noise.
    - Identification of locations where it is infeasible to limit noise to be in compliance with applicable City standards.
    - A procedure and phone numbers for notifying the Department of Building Inspection, the Department of Public Health, or the Police Department of complaints (during regular construction hours and off hours).
    - A sign posted on-site describing noise complaint procedures and a complaint hotline number that shall be answered at all times during construction.
    - Designation of an on-site construction complaint and enforcement manager for the project.
    - A plan for notification of neighboring residents and non-residential building managers within 300 feet of the project construction area at least 30 days in advance of extreme noise-generating activities (defined as activities that generate noise levels of 90 dBA or greater) about the estimated duration of the activity and the associated control measures that will be implemented to reduce noise levels.

3.4 Cultural Resources

3.4.1 Affected Environment

The project area is located in an urban, built environment in the City of [redacted]. [redacted] the [redacted] River, and [redacted] are prominent elements of the existing environment, while modern buildings and landscaping characterize much of the remaining project area. The majority of the [redacted] River is completely lined with concrete, the section of the [redacted] River within the project area is soft bottomed. A nearby reach of the river had previously been found not eligible for listing on the National Register of Historic Places by consensus between the USACE and the [redacted].

Historic Properties. The USACE has determined the area of potential effect (APE) to be all areas of the [redacted] River channel (i.e., "Federal Project") that are subject to modification, including the channel easement and adjacent work area, the proposed areas of permanent and temporary impacts to waters of the United States and adjacent upland work areas, inclusive of a 50-foot buffer. This APE also encompasses the Permit Area for Section 404 permitting purposes pursuant to 33 CFR 325 Appendix D and applicable HQ guidance.

The City submitted cultural and historic resources reports entitled "Historical Resource Technical Report, [redacted] Bikeway and [redacted], [redacted] County, California (ICF International; September 2016)" (**Appendix D**) and "Archaeological Survey Report and Paleontological Assessment, [redacted] Bikeway and [redacted], [redacted] County, California (ICF International; September 2016)" (**Appendix E**). ICF International conducted a records search of potential cultural or historic resources within the vicinity of the proposed project, including a review of the National Register of Historic Places (NRHP), [redacted] Register of Historical Resources, [redacted] Historical Resources Information System, [redacted] Historical Landmarks, [redacted] Points of Historical Interest, City of [redacted]

Historic-Cultural Monuments, City of [redacted] Parcel Viewer-County of [redacted] Tax Assessor, City of [redacted] Department of City Planning-Zoning Information and Map Access System, City of [redacted] Office of Historic Resources-Survey [redacted], City of [redacted] Public Library Photo Database, [redacted] Historical Archives, and historic aerial maps.

In addition to the above efforts, a cultural resources records search was conducted by ICF International on February 16, 2016 at the [redacted] Information Center. It included a review of all available cultural resource surveys and site records within the project footprint plus a 0.5-mile radius around the project footprint. The results of the literature and records search indicate that 11 cultural resources, all represented by historic architectural features, exist in the 0.5-mile study area. None of the 11 cultural resources would be impacted by the proposed project.

Archaeological pedestrian field surveys were conducted by ICF International on January 21, 2016 and February 3, 2016, and an architectural field survey was conducted on May 4, 2016. No archaeological resources were identified during the field surveys. Two buildings over 50 years of age on easements required for construction or access to areas other than the USACE APE were noted during the architectural survey. These resources would be avoided during construction.

The [redacted] Heritage Commission ([redacted] provided [redacted] File searches and lists of [redacted] tribes on August 22, 2017 and January 24, 2018. No specific resources were identified; however, the area was noted as being sensitive for cultural resources. The USACE issued tribal coordination letters to points-of-contact on the most recent list on October 18, 2018 and provided a 30-day comment period. A meeting request was received from the [redacted] on October 26, 2018. The USACE met with the tribe on December 13, 2018, during which the tribe requested that a tribal monitor be present during ground disturbing activities. No other responses were received.

After consideration of information received from the City and [redacted], the USACE determined that no historic properties exist within the USACE's APE and determined the undertaking would have no effect on historic properties. The USACE issued a letter to the SHPO on November 9, 2018 requesting review and comments on the USACE's APE for this undertaking, concurrence with our determination that no historic properties exist within the USACE's APE, and concurrence with our determination of "no historic properties affected" by the project per 36 CFR 800.4(d)(1).

In a letter dated December 13, 2018, the [redacted] stated it appears there are no historic properties located within the project area for this undertaking and did not object to a finding of no historic properties affected for this undertaking.

3.4.2 Environmental Consequences

No Action Alternative. Under the No Action Alternative, the project site would remain in pre-project conditions. No construction would occur and impacts related to [redacted] structures, [redacted] eligible structures, and sensitive cultural resources would not occur.

Preferred Alternative/Proposed Action

Archaeological Resources. No archaeological resources were identified during the field survey. As a result, there is a low likelihood of encountering archaeological resources during construction activities. Ground-disturbing activities would occur during construction, but the City would be required to implement Measures **CUL EC-1 and CUL EC-2** below to ensure the project remains in compliance with 36 CFR section 800.13. Potential impacts would be less than significant.

Human Remains. No human remains are known to exist in the project area, and the location does not encompass any formal cemeteries. Although the uncovering of human remains is not anticipated, if they are discovered, State Health and Safety Code Section 7050.5 requires that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the county coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be [redacted], the coroner shall notify the [redacted], who shall then notify the Most Likely Descendent (MLD). Further provisions of Public Resources Code Section 5097.98 are to be followed as applicable.

Therefore, through compliance with existing regulations, construction of the proposed action would not disturb any human remains, including those interred outside of formal cemeteries. Impacts would be less than significant, and no mitigation is required.

Environmental Commitment Measures

CUL EC-1: Pursuant to 36 CFR section 800.13, in the event of any discoveries during construction of either human remains, archeological deposits, or any other type of historic property, the City shall notify the USACE's Archeology Staff within 24 hours (Danielle Storey at 213-452-3855 OR Meg McDonald at 213-452-3849). The City shall immediately suspend all work in any area(s) where potential cultural resources are discovered. The City shall not resume construction in the area surrounding the potential cultural resources until the USACE re-authorizes project construction, per 36 C.F.R. section 800.13.

CUL EC-2: The City shall have a tribal monitor present during all ground-disturbing activities.

3.5 Erosion, Sedimentation and Groundwater

3.5.1 Affected Environment

The [redacted] River channel within the vicinity of the project site is soft bottomed. The project site is located in a relatively flat valley bottom along the [redacted] River drainage course. Topography of the river drainage slopes gently down toward the south/southeast. The Geotechnical evaluation (attached in **Appendix F**) prepared for the project identified the shallowest reported historic groundwater depth at the project site is on the order of 20 feet below ground surface (bgs) (City of [redacted], 2015). Groundwater levels are expected to fluctuate with seasonal rainfalls, dry weather (i.e., drought conditions), and pumping activities in the vicinity of the project site (City of [redacted], 2015). The Geotechnical Report prepared for the project (June 9, 2015) revealed the depth to groundwater at the time of drilling was approximately 18 feet bgs in Boring B-1 and 16.5 feet in Boring B-2. Groundwater was encountered at the ground surface in Boring B-3 (City of [redacted] 2015).

3.5.2 Environmental Consequences

No Action Alternative. Under the No Action Alternative, the project site would remain in pre-project conditions. No construction would occur and impacts related to water erosion, sedimentation, groundwater percolation or infiltration would not occur.

Preferred Alternative/Proposed Action

Erosion and Sedimentation. The proposed action would have one pier along the centerline of the channel. The proposed action would not result in substantial local scour. Operation of the proposed action would not result in substantial erosion or siltation on- or off-site, resulting in less than significant impacts. The City would be required to implement the Environmental Commitment measure **EROSION EC-1** to ensure impacts due to erosion and sedimentation remain minimal.

Groundwater. The proposed bridge abutments would be supported on a single bent pier in the central portion of the [redacted] River. Once the proposed action is constructed, the project site would be covered with more impervious surfaces as a result of bridge and bikeway ramp construction. However, the proposed action's bridge component would still allow water to flow into the riverbed and the bikeway ramps would only result in a negligible increase in imperious cover. In addition, no portions of the project site above the riverbed serve as recharge areas. The proposed action would not interfere substantially with groundwater recharge because the increase in impervious surfaces are negligible. The project would have no significant impacts to groundwater.

Environmental Commitment Measures

EROSION EC-1: At least thirty (30) days prior to initiating construction, the Permittee shall submit to the USACE [redacted] District a complete set of final detailed grading/construction plans, including dewatering plans, showing all

work and structures in the channel. All plan sheets shall be signed, dated, and submitted electronically or on paper no larger than 11x 17 inches. No work in the channel is authorized until the Permittee receives, in writing (by letter or e-mail), USACE [redacted] approval of the final detailed grading/construction plans. The Permittee shall ensure that the project is built in accordance with the USACE-approved plans.

3.6 Water Quality

3.6.1 Affected Environment

The [redacted] River and selected tributaries are impaired by pollutants (i.e., trash, metals, bacteria, nutrients) mainly because of the Watershed's large, dense population and the amount of impervious ground surface that prevents large quantities of runoff from infiltrating into the soils. The project site is located over and within [redacted] River Reach [redacted]. [redacted] River Reach [redacted] is included on the 303(d) list for the impairments shown below in **Table 4.6-1**. Multiple TMDLs are in effect for the [redacted] River.

Table 3.6-1. Overview of Water Quality Impairments in Project Area

Water Body	Listed Impairments	Potential Sources	USEPA TMDL Approval Date
[redacted] River Reach [redacted]	Ammonia	Point and nonpoint	March 18, 2004
	Copper	Unknown	December 22, 2005
	Lead	Unknown	December 22, 2005
	Nutrients (Algae)	Point and nonpoint	March 18, 2004
	Trash	Nonpoint, surface runoff, urban runoff	July 24, 2008

Source: SWRCB, 2011.

3.6.2 Environmental Consequences

No Action Alternative. Under the No Action Alternative, the project site would remain in pre-project conditions. No construction would occur and impacts related to water quality would not occur.

Preferred Alternative/Proposed Action

Construction. Implementation of the proposed action would result in short-term erosion and sedimentation impacts associated with temporary construction activities within, and adjacent to, the [redacted] River. The proposed project would temporarily disturb approximately four acres of land during construction activities. Approximately two acres of jurisdictional waters of the [redacted], and two acres of construction staging area adjacent to the proposed bridge would be temporarily affected. The majority of earth-disturbing activities would occur within the [redacted] River. The proposed action would comply with the [redacted] General Permit that requires implementation of a [redacted] to address erosion and sedimentation at the project site during construction activities. Temporary BMPs, such as silt fences, straw waddles, sediment traps, gravel sandbag barriers or other effective sediment and erosion control measures would be implemented to control runoff and erosion during construction activities. Implementation of erosion and sediment control measures would prevent substantial soil erosion and sedimentation from exposed soils, thereby protecting water quality. The [redacted] General Permit additionally requires final stabilization of the project site following completion of construction activities. Final stabilization is defined by the [redacted] n General Permit as the project site will not pose any additional sediment discharge risk than it did prior to the commencement of construction activity (SWRCB, 2012). Environmental Commitment measures **HAZ EC-1** and **WQ EC-3** would serve to reduce soil and groundwater impacts as well as impacts associated with storm water pollution.

The Applicant would be required to obtain a Clean Water Act section 404 permit from the USACE for the discharge of fill material into the [redacted] River for the proposed concrete pier (approximately 0.01 acre of permanent impacts), as well as the discharge of dredged or fill material within the work zone due for construction staging, temporary access

ramps, and water diversion (approximately 0.56 acre of temporary impacts). In addition, the Applicant would be required to obtain a Clean Water Act section 401 water quality certification from the [redacted] Regional Water Quality Control Board. Although temporary water quality impacts related to suspended solids in the water column may be expected, impacts related to re-suspension of sediments would be temporary and localized. Implementation of the Environmental Commitments measures **WQ EC-1 to WQ EC-9** would ensure any impacts to water quality remain minimized. Construction of the proposed action would not violate any water quality standards or waste discharge requirements and impacts would be less than significant.

Operation – Water. During operation of the proposed action, water quality impacts would be from the pedestrian and bicycle users of the bridge. Pedestrian and bicyclists may dispose of personal trash over the bridge, which would have minor contributions to an existing 303d water quality impairment within Reach [redacted] of the [redacted] River. The proposed action is subject to the current MS4 permit for [redacted] County (Order No. [redacted]) and the City's Low Impact Development (LID) ordinance. The permit requires the design and implementation of specific post-construction controls to treat stormwater pollution and runoff, prior to project completion, for all "new development" and "redevelopment" projects that meet certain criteria as specified in the permit. The proposed action is considered a redevelopment project because it would result in land-disturbing activity that results in the creation or addition or replacement of 5,000 square feet or more of impervious surface area. Due to potential littering by users, the proposed project could potentially have substantial impacts to water quality; however, littering is not considered a point-source of pollution and could be reduced through the use of trash receptacles and signage.

In addition, in order to address the potential disposal of trash over the bridge by pedestrians and bicyclists, Environmental Commitment measure **WQ EC-10** is included to provide a BMP maintenance plan for operation of a covered trash receptacle that is emptied on a regular schedule and/or inclusion of "no dumping" stencils/tiles and signs would further promote the use of trash receptacles. Implementation of Environmental Commitment measure **WQ EC-10** would ensure impacts to water quality are reduced and would not substantially degrade water quality during operation. Therefore, significant impacts related to water quality would not occur under the Preferred Alternative.

Environmental Commitment Measures

WQ EC-1: Construction limits will be clearly demarcated using highly visible barriers (such as silt fencing). Construction personnel will strictly limit their activities, vehicles, equipment, and construction materials to the project footprint, including designated staging areas, and routes of travel. The construction areas will consist of the minimal area necessary to complete the proposed project. The fencing will remain in place until the completion of all construction activities.

WQ EC-2: All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed or designated non-sensitive upland habitat areas. The designated upland areas will be located to prevent runoff from any spills from entering waters of the [redacted].

WQ EC-3: A construction [redacted] Prevention Plan ([redacted]) and a soil erosion and sedimentation plan will be developed to minimize erosion and identify specific pollution prevention measures that will eliminate or control potential point and nonpoint pollution sources on-site during and following the project construction phase. The SWPPP will identify specific best management practices (BMPs) to be implemented during project construction to causing or contributing to any water quality standard exceedances. In addition, the SWPPP will contain provisions for changes to the plan such as alternative mechanisms, if necessary, during project design and/or construction to achieve the stated goals and performance standards.

WQ EC-4: Trash will be stored in closed containers and will be removed from the construction site on a daily basis.

WQ EC-5: Water quality shall be visually monitored to ensure that no substantial increases in turbidity occur during construction.

WQ EC-6: All relevant permits and authorizations will be obtained from appropriate agencies (i.e., [redacted], [redacted] prior to the initiation of construction activities. Permit conditions contained within the permits and authorizations will be employed throughout the duration of the project.

WQ EC-7: Hydrologic connectivity will be maintained within drainages during the duration of construction. Brush, debris material, mud, silt, or other pollutants from construction activities will not be placed within drainages and will not be allowed to enter a flowing stream.

WQ EC-8: Rodenticides, herbicides, insecticides, or other chemicals that could potentially harm water quality will not be used near or within the [redacted] River.

WQ EC-9: No construction equipment or machinery will be staged or stored in the [redacted] River channel when not in use.

WQ EC-10: The Permittee shall provide a covered trash receptacle that is emptied on a regular schedule and/or utilize "no dumping" stencils/tiles and signs would further promote the use of trash receptacles.

3.7 Flood Risk Assessment

3.7.1 Affected Environment

The [redacted] River channel within the vicinity of the project site is soft bottomed. The sides of the channel are concrete lined to control major flood events. The project site is located over and within [redacted] River Reach [redacted]. Along this reach of the [redacted] River, the channel has a trapezoidal cross-sectional geometry with a base width of 220 feet, a height of 23 feet, and a side slope of 3 horizontal to 1 vertical (3H:1V). The side slopes of the channel are lined with concrete, and the invert is lined with a 2.5-feet thick layer of cobble ([redacted], 2015). [redacted] River Reach [redacted] within the project area is located within Flood Zone A; Flood Zone A areas are subject to inundation by the one-percent-annual-chance flood event. Areas immediately outside of the [redacted] River flood control channel are considered protected by the levees and are within Flood Zone X (unshaded); Flood Zone X (unshaded) are areas of minimal flood hazard.

3.7.2 Environmental Consequences

No Action Alternative. Under the No Action Alternative, the project site would remain in pre-project conditions. No construction would occur and impacts related to flood risks would not occur.

Preferred Alternative/Proposed Action

Construction. On-site surface flows from the project site and laydown areas would be required to implement standard BMPs specified in the [redacted] per Environmental Commitment measure **WQ EC-3** to ensure that surface runoff rates and amounts would not result in flooding to either on or off-site areas. Construction of the proposed action would not substantially alter the existing drainage patterns or hydrology of the [redacted] River, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on-site or off-site and therefore, impacts would be less than significant, and no mitigation is required.

Operation. Current USACE design criteria recommends a minimum of 2.5 feet of freeboard above the design discharge for trapezoidal sections of entrenched concrete-lined channels, three feet for levees, and extra consideration in local regions where water-surface elevations are difficult to determine like at bridge piers. [redacted] performed a hydraulic analysis and sensitivity analysis which determined the change in water surface elevation due to the proposed project meets USACE requirements for freeboard. The sensitivity analysis used varying Manning's *n* coefficients to represent design and existing conditions. The sensitivity analysis was documented in memo: [redacted] Bridge Analysis dated 23 March 2018. Because the proposed action's increase to water surface elevation would not diminish the freeboard to less than required levels, the proposed action would have no significant impacts to flood risk. No mitigation measures are required.

The proposed action is subject to the current MS4 permit for [redacted] County (Order [redacted]) and the City's Low Impact Development (LID) ordinance. LID comprises a set of site design approaches and BMPs that are designed to address runoff and pollution at the source. With compliance with the MS4 permit and LID ordinance, the proposed action would not result in flooding on or off-site, and impacts would be less than significant during operation.

3.8 Public Safety (Hazardous Materials, Geologic Hazards and Emergency Response)

3.8.1 Affected Environment

Hazardous Materials. Information obtained via the Phase I limited hazardous materials assessment along with research conducted via EDR and GeoTracker identified the presence of several hazardous materials sites within a 0.25-mile radius of the proposed action's area. Four of those sites remain open and under regulatory agency oversight and, as a result, have the potential to affect the proposed action. They are the [redacted] Valley Area [redacted] – [redacted] Field site, the [redacted] Parcel [redacted] and Parcel [redacted] sites, and the [redacted] at [redacted] site (also part of the [redacted] site).

- The [redacted] Valley Area [redacted] – [redacted] Field is a National Priorities List site that is part of a larger regional groundwater contaminant plume.
- The [redacted] at [redacted] Regional Rail is located 0.13 mile to the northeast and listed as having a history of releases to soil. Records reviewed also indicate the presence of a waste oil storage tank adjacent to the project footprint.
- The [redacted] Parcel [redacted] site is located approximately 0.2 mile to the east of the proposed action and listed as certified under the Voluntary Clean-Up program. Historic maintenance activities associated with the [redacted] led to affected soil.
- The proposed action area appears to overlap with the eastern most portion of the [redacted] Parcel [redacted] site, and as such, it is possible that earthmoving activities occurring in that area could result in exposure to contaminated soil.

Geologic Hazards. A geotechnical evaluation was prepared for the proposed action, which is attached in **Appendix E**. The nearest active faults are the [redacted] Fault and the [redacted] Fault, which are located approximately 1.4 miles southwest and 1.7 miles northwest of the site, respectively. No active faults intersect the project site, and thus fault rupture is unlikely to occur during project implementation. Additionally, the project area is not located within a [redacted] Earthquake Fault Hazard Zone or within a City of [redacted] Fault Rupture Study Zone.

Emergency Response. County emergency management is provided by the [redacted] Emergency Response [redacted] ([redacted]) and is facilitated by the responding agencies such as the [redacted] County Fire Department ([redacted] and the [redacted] County Sherriff's Department.

3.8.2 Environmental Consequences

No Action Alternative. Under the No Action Alternative, the project site would remain in pre-project conditions. No construction would occur and impacts related to public safety would not occur.

Preferred Alternative/Proposed Action

Hazardous Materials. A phase 1 limited hazardous materials assessment was prepared for the proposed action, which is attached in **Appendix G**. Contaminated soil and/or groundwater would be encountered during construction activities associated with the implementation of the proposed action. Implementation of Environmental Commitment measure **HAZ EC-1**, would ensure contaminated soils or groundwater would be disposed of at an appropriate licensed disposal facility. The proposed project would not generate or expose hazardous materials to the surrounding environment or communities during operation of the project. Therefore, the proposed project would have less than significant short term impacts due to disturbance of contaminated soils or groundwater that occur in the [redacted] River.

Geologic Hazards. There are no active faults that run through the project site. No impact would occur.

The proposed action is located in Seismic Zone 4 and could be subject to future seismic shaking and strong ground motion resulting from seismic activity, and damage could occur. However, the proposed action is not designed for

human occupancy on a permanent or semi-permanent basis. Therefore, the project would not result in any additional human occupants being put at risk from seismic shaking. The project would have no significant effect on public safety.

The proposed action site footprint is flat with minimal relief, making slope instability and landslide potential within the project area negligible. The site is located within an area that is classified as potentially liquefiable and there is the potential for liquefaction. However, values of potential horizontal displacement associated with lateral spread obtained during the geotechnical study (from potentially liquefiable layers) indicate that the potential for lateral spread is low. The project would have no significant effect on public safety.

Ground shaking during an earthquake could lead to densification of dry loose (unsaturated) sandy soils known as dry sand settlement or seismic compression. Seismically induced settlement was estimated during the geotechnical study at both abutment locations. Recommendations have been made in geotechnical study to minimize potential impacts associated with seismic compression (which include the design and construction of deep bridge foundations). There is no significant effect on public safety.

According to the preliminary evaluation, historic subsidence is not known to have occurred or been reported in the site region. As a result, impacts related to subsidence in the project area are not expected. Implementation of the proposed action would not be located on expansive soil, creating substantial risks to life or property. Due to the deep foundation bridge design expected, expansive soils would not have a significant impact on the project. Construction of the proposed action would be subject to applicable ordinances of the 2013 [redacted] Building Code ([redacted] Title 24) and recommendations contained in the geotechnical engineering report, including the aforementioned deep foundation bridge design. Impacts would be less than significant. The proposed action would not be located in an area subject to seiche, tsunami, or mudflow. Therefore, as discussed above, there would be no significant impacts related to geologic hazard.

Emergency Response. Construction or implementation of the proposed action would not impair implementation of or physically interfere with an adopted emergency response plan. The project location is not an emergency access route. The proposed bridge would be designed to support emergency vehicles and would create a new access route between [redacted] and the [redacted] area. During construction activities, the proposed action would be required to comply with applicable requirements set forth by the [redacted] and the [redacted] County Sherriff's Department. The proposed action would not include housing or steady employment and, as a result, there would be no direct or indirect increase in population resulting from construction or operation of the proposed action. Therefore, there would be no increased demand for emergency response as a result of increased population. There would be no effect on the service ratios, response times, or other performance objectives for fire or police protection. The project would have no significant impact on emergency response.

Environmental Commitment Measures

HAZ EC-1: Additional soil and groundwater monitoring and analysis. A Soil Management Plan (SMP) shall be prepared and submitted to the [redacted] County Fire Department for review and approval. The SMP shall be implemented during excavation and grading activities in areas of potential soil contamination to ensure contaminated soil encountered is properly identified, removed, and disposed of off-site. The SMP shall include the following provisions:

- A qualified environmental consultant shall be present during grading and excavation activities to monitor compliance with the SMP and to actively monitor the soil and excavations for evidence of contamination.
- Soil encountered during excavation or grading activities that appears to have been affected by hydrocarbons or other contamination shall be tested for potential contaminants and evaluated by a qualified environmental consultant prior to off-site disposal at a licensed facility.
- Soil determined to be contaminated shall be properly removed, handled, and transported to an appropriately licensed disposal facility, in accordance with the SMP.

In the event that groundwater is encountered during construction activities;

- The contractor shall seek the professional recommendation of a qualified environmental consultant specializing in the identification and handling of hazardous materials.

- Groundwater encountered during construction activities shall be tested for potential contaminants and evaluated by the environmental consultant prior to removal or discharge. Under the SWRCB's NPDES General Permit; groundwater obtained during dewatering activities requires that it be sampled if it is to be discharged via surface waters.
- Groundwater determined to be contaminated shall be properly handled and disposed of at a licensed disposal facility per the consultant's recommendations. No amount of contaminated groundwater shall be discharged back into the [redacted] River.

3.9 Recreation

3.9.1 Affected Environment

There are several parks and recreational facilities within the project area, including the G[redacted] (adjacent), [redacted] State Park (adjacent), [redacted] (approximately 1,200 feet southwest of the project site), [redacted] at [redacted] (approximately 0.8 mile northwest of the project site), [redacted] Community [redacted] (approximately 1,000 feet southeast of the project site), and several other smaller community parks and minor facilities just north of the intersection of the [redacted] and [redacted], including [redacted] Center, [redacted] Park, [redacted] Park, [redacted] Park, [redacted] Park, [redacted] Park, and the [redacted] and Gardens (approximately 0.7 mile southwest of the proposed action at its nearest point).

3.9.2 Environmental Consequences

No Action Alternative. Under the No Action Alternative, the project site would remain in pre-project conditions. No construction would occur and impacts related to the disruption of recreational activities would not occur.

Preferred Alternative/Proposed Action. The proposed action would construct a multi-modal bridge over the [redacted] River between [redacted] on the west and [redacted] on the east and would provide a safe year-round crossing for pedestrians and bicyclists. Construction of the proposed action may include partial closures of the [redacted] River [redacted] and [redacted] Road. Signage would be installed to direct recreational users in the project vicinity to detours and alternative routes. Construction may include partial closures and rerouting of kayaking activities managed by the [redacted] and Conservation Authority ([redacted]). Although closures may results in a temporary loss of access to recreational activities along the River, detours provided to recreational users would decrease the effect of temporary closures. The Requester is responsible for providing and signing detours, and providing/notifying the public of any detours, including providing a point of contact at the City. The City is responsible for coordinating with [redacted] about construction activities affecting their [redacted] Recreation Zone. Overall, operation of the proposed action would provide enhanced recreational access along the River. Although the number of people who use bike paths and pedestrian walkways would increase, it would not be to such a level that would negatively impact the River and surrounding parks. Therefore, impacts related to the long-term disruption of recreational activities would not occur and there would be no significant impacts to recreation due to the proposed project.

3.10 Aesthetics

3.10.1 Affected Environment

The City of [redacted] lies at the southwestern edge of [redacted] County, a location with visually prominent hillsides that define the northern edges of the city. The primary visual resource within viewsheds throughout the project area is the [redacted] River, whose form creates visual continuity and adjacent vegetation provides contrast, color and moderately diverse visual patterns. The [redacted] Mountains and their foothills form the backdrop for many views and viewsheds (all of the surface areas visible from an observer's viewpoint) throughout the community. Residential viewer groups are located along [redacted] Road between approximately [redacted] Street and [redacted] Avenue. This viewer group would be more sensitive to this type of temporary visual intrusion than recreationists and regular visitors to the [redacted] River and surrounding areas.

3.10.2 Environmental Consequences

No Action Alternative. Under the No Action Alternative, the project site would remain in pre-project conditions. No construction would occur and impacts related to aesthetics would not occur.

Preferred Alternative/Proposed Action. Construction activities would temporarily diminish the visual quality or character of the immediate area and partially obstruct views in the immediate project vicinity.

The proposed action would include built elements that have the potential to alter the existing visual character and/or quality of the site and its surroundings. The project proposes to introduce a bridge across the [redacted] River, with its east abutment located at [redacted] Road and its western abutment located between [redacted] Street and [redacted] Place. The bridge deck is planned to be approximately 18 feet in width and the overall width of the bridge would be approximately 26 feet 2 inches. The height of the bridge would be approximately 30 feet, and would be a steel structure approximately 400 feet in length.

The built features would not remove or demolish existing features or elements that contribute to the visual character of the project area, primarily the [redacted] River and foothills of the [redacted] Range. The bridge would, however, have one intermediate support mid-span within the [redacted] River, which would slightly alter existing features.

As mentioned above, the bridge itself would be the primary built element to be introduced by the proposed action. To the extent practicable, the architectural design and treatment of the bridge would serve to enhance visual quality and contribute to the overall cohesion and continuity of the proposed action with the [redacted] River. Once built, views throughout the immediate project vicinity would still be of medium quality, maintaining variety with respect to vegetation and color. Similarly, viewsheds throughout the immediate project vicinity would retain their intactness through a combination of well-kept urban features and natural settings. Overall, the project area would remain fairly unified, and the proposed action would not substantially compromise the visual coherence, line patterns, or overall scenery. Views would remain low to medium quality. Therefore, the proposed action would not substantially degrade the existing visual character or quality of the site and its surroundings. Impacts would be less than significant, and no mitigation measures are required.

3.11 Traffic and Circulation

3.11.1 Affected Environment

Major streets serving the proposed action are listed below. Sidewalks are generally available in the vicinity of the project area. The street descriptions include the designation of the roadway under the [redacted] *2035* ([redacted] Department of Planning, General Plan Mobility Element, 2015) approved by the [redacted] City Council in August 2015.

[redacted] **Road** is a private local roadway that provides access to the [redacted] Commuter Rail Central Maintenance Facility well as the residential housing developments currently existing east of [redacted] Road.

[redacted] **Road** is an Avenue I roadway that runs in the north/south direction parallel to the [redacted] Freeway. [redacted] Street is a local street that runs in the east/west direction. Parking is permitted on both sides of the street.

[redacted] **Avenue** is an Avenue I roadway that runs in the north/south direction parallel to [redacted] Road and the [redacted] Freeway.

[redacted] **Street** is a local street that runs in the east/west direction. Parking is permitted on both sides of the street. The end of [redacted] Street provides access to the [redacted]

[redacted] **Avenue** is a local street that runs in the east/west direction. Parking is permitted on both sides of the street. The end of [redacted] Avenue provides access to the [redacted]

[redacted] runs in the north/south direction and extends from [redacted] to [redacted]. In the vicinity of the of the project site, the freeway provides three lanes in each direction plus auxiliary lanes.

[redacted] runs in the north/south direction and extends from [redacted] to [redacted] to the [redacted]. In the vicinity of the project site, the freeway provides four lanes in each direction plus auxiliary lanes.

3.11.2 Environmental Consequences

No Action Alternative. Under the No Action Alternative, the project site would remain in pre-project conditions. No construction would occur and impacts related to traffic and circulation would not occur.

Preferred Alternative/Proposed Action. A traffic and transportation impact analysis was prepared for the proposed action, which is attached in **Appendix H**. Per the traffic and transportation impact analysis, the system's traffic and circulation capacity is not at risk of being exceeded due to the project. The proposed action would involve the operation of a bridge connecting to an existing bike path. The proposed action could generate trips from people driving to the site to access the pedestrian and bike path, but any increases would not be in quantities that would reach circulation system capacity. The project would have no significant impacts on traffic and circulation. Although not required to mitigate impacts, a Construction Traffic Management Plan and Construction Worker Parking Plan would be implemented by the Applicant.

3.12 Utilities

3.12.1 Affected Environment

A variety of utilities such as power lines, telecommunications, and storm water lines traverse the project area. Overhead utilities include electrical and telephone lines, with storm water lines buried adjacent to [redacted] Bridge location. B. The City's Bureau of Sanitation and private waste management companies manage the collection, transfer, and disposal of municipal solid waste.

3.12.2 Environmental Consequences

No Action Alternative. Under the No Action Alternative, the project site would remain in pre-project conditions. No construction would occur and impacts related to the disruption of utility services would not occur.

Preferred Alternative/Proposed Action. Operation of the proposed action would consist of pedestrian and bicycle traffic accessing the bridge. The proposed action would not generate wastewater, or cause an exceedance of water quality standard.

Construction and operation of the proposed action would generate minor amounts of solid waste. Of the Class III solid waste disposal facilities in [redacted] County, [redacted] Canyon has the largest remaining capacity at 74.37 millions of tons [redacted] County Department of Public Works, 2012). Adequate landfill capacity exists to accommodate project-generated waste. Therefore, through compliance with the applicable regulations, impacts on solid waste disposal needs would be less than significant.

3.13 Land Use

3.13.1 Affected Environment

The proposed action would be located across the [redacted] River and in the surrounding area in the [redacted] Park Community Plan area in the City of [redacted]. Specifically, the northern abutment of the proposed bridge would be located adjacent to [redacted] Road, and its southern abutment would be located adjacent to the USACE maintenance road, approximately between [redacted] Street and [redacted] Place, adjacent to [redacted] in the City of [redacted].

The proposed bridge would cross the [redacted] River in the southern portion of the project area. The [redacted] River is a feature of the [redacted] project and is subject to operation and maintenance by the USACE. All development or use activities in the River must be consistent with the Federal Project purpose, including federal operations and maintenance requirements. Further, Congress has authorized the [redacted].

The northern abutment lies adjacent to a proposed natural river area commonly known as the G[redacted] property. This property is currently under ownership of the City of [redacted]. Within the [redacted] parcel lies the southernmost stretch of [redacted] Road, which is a private street, owned dually by the [redacted] County [redacted] Authority ([redacted]) and [redacted] Parks, which allows access to the [redacted] Facility as well as the residential housing developments east of [redacted] Road. To the west of [redacted] Road is the [redacted] State Park.

The [redacted] operate high-voltage transmission lines along the north bank of the [redacted] River, which happen to land under [redacted] transmission lines. The [redacted] County Department of Public Works ([redacted]) maintains a maintenance road along the northern bank of the [redacted] River, which is currently used by [redacted], USACE, and [redacted]. Additionally, the [redacted] operates both a main line and tail track through the project footprint.

The southern bank of the [redacted] River is used as a maintenance road for USACE operations, and has a secondary use as a bikeway subordinate to the USACE flood risk management purpose. This access corridor begins at [redacted] Drive to the north and continues to [redacted] Park at [redacted] Drive to the south. Additionally, directly south of the proposed bridge location is the [redacted] Place Maintenance Yard.

3.13.2 Environmental Consequences

No Action Alternative. Under the No Action Alternative, the project site would remain in pre-project conditions. No changes to land uses in the area or construction would occur and impacts related to division of a community or conflict with applicable plans, policies, or regulations would occur.

Preferred Alternative/Proposed Action

Physical Division. The proposed action aims to connect the communities located east and west of [redacted]. Specifically, implementation of the proposed action would provide pedestrian and bicycle linkages for the surrounding community. No residential uses would be removed or divided under the proposed action. No impact would occur.

Consistency with Adopted Plans. The proposed pedestrian bridge construction and operations would be consistent with the existing federal project, but future alterations, removals, modifications, and relocations of infrastructure may be needed to remain consistent with the [redacted]. If in the future the USACE [redacted] District identifies that the proposed bridge would conflict with the design and/or construction of the [redacted], the conflict would need to be eliminated to maintain the consistency of the federal project in order to avoid significant impacts. The northern abutment of the project site is zoned [redacted] and designated as Public Facilities/Heavy Manufacturing in the City of [redacted] General Plan. The southern abutment of the proposed action is zoned as [redacted] and is designated as Public Facilities by the City's General Plan. The [redacted] riverbed is zoned as Open Space. The project site is located within the [redacted] District, as designated by City Ordinance [redacted] and [redacted]. Any grading, demolition, pool, solar, interior, and sign permits for a project located with the [redacted] District are exempt.

The [redacted] includes revitalization measures for the 32 miles of the [redacted] River in the City of [redacted]. The project site is located in the Plan area and the proposed action is included in the [redacted]'s priority list as Project No. [redacted] (the [redacted] Non-Motorized Bridge). Construction and operation of the proposed action would be consistent with the [redacted]. Therefore, no land use inconsistency is expected from the construction and operation of the proposed action and the impact would be less than significant.

Environmental Commitment Measures

Although not needed for mitigation to reduce impacts, any 408 permission, should it be granted, will include the following measures to ensure there is no conflict with the federal project:

[redacted]**ND EC-1:** In the event that Applicant fails to prevent interference or potential interference with the operation of the Federal Project, the Applicant then shall be responsible to remove the proposed bridge. Removal shall be conducted only after consultation with the USACE [redacted] District and upon modification or amendment of the 408 permit.

[redacted]**ND EC-2:** The proposed bridge is located within the project area for the federal [redacted] Ecosystem Restoration Project ([redacted]. In the event the USACE [redacted] District identifies that the proposed bridge would conflict with the design and/or construction of the [redacted], the Applicant shall eliminate the conflict to the satisfaction of the USACE [redacted] District and at the cost of the Applicant by modifying, removing, and/or reconstructing the bridge, pathway, and any associated alterations.

3.14 Socioeconomics and Environmental Justice

3.14.1 Affected Environment

Executive Order [redacted], Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations.

The project area is located in [redacted] and adjacent to four census tracts. The total population within these five census tracks, according to 2010 [redacted] Census data, is 14,011 persons. Selected demographic information from the 2010 U.S. Census and 2014 American Community Survey for the five census tracts are indicated in **Table 4.14-1**.

Table 3.14-1. Socioeconomic Data

Census Tracts	Total Population /a/	Minority (Non-White) /b/	Average Household Size /b/	Median Household Income /c/	Poverty Low Income /c/
Tract Including Project Site					
1972	3,757	55%	3.67	$46,813	9.1%
Tracts Adjacent to Project Site					
1871.02	3,254	61.2%	3.26	$50,227	5.4%
1872	3,132	77.8%	2.51	$36,935	22.4%
1974.1	3,704	40%	3.35	$69,231	15.8%
9800.1	164	15%	0.12	$16,250	68.3%
Average of Census Tracts Adjacent to Project Site		48.5%	2.31	$43,160	27.9%
/a/ U.S Census Bureau, 2010 Census, Table P9. /b/ U.S Census Bureau, 2010 Census, Table H13. /c/ U.S Census Bureau, American Community Survey 2014, Table S1701.					

Source: U.S Census Bureau, *American Fact Finder*, available at http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml, accessed October 24, 2016.

3.14.2 Environmental Consequences

No Action Alternative. Under the No Action Alternative, the project site would remain in pre-project conditions. No construction would occur and impacts related to the displacement of people, adverse effects on minority and low income populations, and changes in the existing socioeconomic profile would not occur.

Preferred Alternative/Proposed Action. Construction and operation of the proposed action would not result in population growth nor would housing or people would be displaced by project implementation. Construction of the project would provide short-term construction work and no permanent jobs that would cause for population growth in the area. Thus, preferred alternative would not displace populations or necessitate the construction of replacement housing elsewhere and no impact would occur.

The minority population (55.0 percent) for the census tract that includes the project site is slightly higher than the average minority population (48.5 percent) for the four census tracts adjacent to the project site. The median household income ($46,813) for the census tract that includes the project site is higher than the average median household income

($43,160) and its poverty rate (9.1 percent) is significantly lower than the average poverty rate (27.8 percent) for the four census tracts adjacent to the project site. Thus, the proposed action would not disproportionately affect low-income populations. Per Executive Order [redacted] Section [redacted], in order for environmental justice to be a concern the proposed action would have a "disproportionately high and adverse" effect on a minority or low-income population. While the proposed action could affect minority and low-income populations, the proposed action would not adversely affect these populations. Therefore, the Preferred Alternative would not result in disproportionately high and adverse effects to minority or low-income populations nor substantially change the existing socio economic profile of the area and impacts would be less than significant.

4.0 CUMULATIVE IMPACTS

Pursuant to 40 CFR Parts [redacted], cumulative impacts of a proposed action must be assessed. A cumulative impact is an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions." The intent is to identify impacts of other past, present, and reasonably foreseeable future projects that, when considered together with the proposed project, may significantly compound or increase environmental impacts. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Infrastructure, industrial, commercial, residential, and other projects in proximity to the proposed project are considered to have the potential for creating cumulative impacts in association with the Proposed Action. CEQ's guidance for considering cumulative effects states that [redacted] documents "should compare the cumulative effects of multiple actions with appropriate national, regional, state, or community goals to determine whether the total effect is significant". The geographic scope for the cumulative impacts analysis is the [redacted] from the State Highway [redacted] crossing to the State Highway [redacted] crossing.

Past: The [redacted] reach of the [redacted] River is an approximately 6-mile long, soft-bottom, trapezoidal channel that traverses [redacted]. Subsequent to its construction in 1939 and the completion of the [redacted] project in 1959, the adjacent area became highly urbanized with residential, commercial, and industrial land uses currently abutting the structure.

Present: Originally devoid of vegetation subsequent to completion of construction, the USACE [redacted] District periodically trimmed and removed vegetation from the project reach until the 1980s. The USACE [redacted] District also undertook limited trimming operations during the latter half of the 1990s. No large-scale vegetation maintenance activities took place within the project reach thereafter due to funding limitations. As a result, [redacted] currently supports approximately 63 acres of vegetation composed of native and non-native trees, shrubs, and tall grasses, making it a regional destination for recreational enthusiasts and birdwatchers. The vegetation and sediment in the river has also diminished flood conveyance capacity within the [redacted] reach.

The increase of urbanization in areas adjacent to [redacted] has also affected water quality. [redacted] is a Clean Water Act section 303(d)-listed water body. Wet weather and dry weather flows from numerous storm water outfalls have resulted in high concentrations of nutrients including nitrate, nitrite, ammonia, and total phosphate within the discharged effluent. High concentrations of bacteria are associated with nuisance flow discharged from the storm water outfalls.

Development has also changed the flow regime of [redacted] from ephemeral to perennial. The 6.2-mile-long reach is now a perennial water body that conveys approximately 30 million gallons per day discharged from the [redacted] Plant, and the [redacted] Reclamation Plant.

The USACE [redacted] District has conducted maintenance activities required for maintenance of designed flows and capacities within the [redacted] River. Maintenance activities include removal of trash and debris, graffiti abatement, removal of sediment from concrete structures and associated vegetation, removal of non-native vegetation, and like-for-like structural repairs. In addition to operating and maintaining the engineered structures of the [redacted] River within the [redacted], the USACE [redacted] District has also issued permits pursuant to Section 404 of the Clean Water Act for discharges of dredged or fill material within waters of the U.S., and Section 408 of the Rivers and Harbors Act for modifications to federally-constructed structures as noted below.

Section 404 CWA Actions in the [redacted] Area

1997-149 - Revegetation Project - [redacted] Riverway
1998-566 - Giant Reed Removal - [redacted] River
2006-333 - [redacted] Culvert Replacement
2007-094 - [redacted] Channel Repair
2007-919 - [redacted] - [redacted] Sewer Siphon
2008-495 - [redacted] Drive Bridge Seismic Retrofit over [redacted]
2012-051 - [redacted] Multimodal Bridge Crossing
2013-775 - [redacted] Sewer
2015-382 - [redacted] Outfall Project
2017-417 - [redacted] at [redacted] Street Freeway Extension
2017-307 - City of [redacted] Bikeway/Pedestrian Bridge over the [redacted]
2017 – Sediment testing at [redacted]
2018-114 - [redacted] River [redacted] Ave Bridge Replacement

Section 408 RHA Actions in the [redacted] Area

[redacted]-2012-012 soil borings
[redacted]-2012-013 bridge construction
[redacted]-2012-024 [redacted] Bridge
[redacted]-2012-048 soil borings
[redacted]-2012-051 soil borings
[redacted]-2012-078 water wheel
[redacted]-2014-053 utility crossing under invert
[redacted]-2014-059 soil borings
[redacted]-2015-042 side drain modification
[redacted]-2015-060 side drain modification
[redacted]-2016-030 [redacted] pedestrian bridge
[redacted]-2016-050 soil borings
[redacted]-2016-085 [redacted] bridge widening
[redacted]-2017-044 fiber optic conduit crossing
[redacted]-2018-018 construction atop existing piers
[redacted]-2018-020 [redacted]/[redacted] Bridge

Future: Existing maintenance practices within the [redacted] River are expected to remain unchanged for the foreseeable future. In addition to operating and maintaining the engineered structures of the [redacted] River within the project reach, the USACE also issues permits pursuant to Section 404 of the Clean Water Act for discharges of dredged or fill material within waters of the U.S., and Section 408 of the Rivers and Harbors Act for modifications to federally-constructed structures. Continued receipt of Section 404 and Section 408 permits for the construction, modifications, and maintenance of existing and future infrastructure such as bridges and utilities are anticipated. These non-USACE projects may require issuances of Section 404 and Section 408 permits. With few exceptions, most projects are expected to be small in scope and limited to like-for-like repairs.

Furthermore, there is an increasing awareness of the recreational, economic and environmental importance of the [redacted] River to the social milieu of the City. To that end, the City of [redacted] may implement projects designed to create access and facilitate interaction with the [redacted] River per the [redacted] River Master Revitalization Plan or other efforts. Revitalization of the [redacted] is intended to spur renewed investments including job growth and economic development. Furthermore, with the exception of the 2.4-mile-long reach transecting the [redacted] Basin, [redacted] is the only substantial segment of the [redacted] River resembling a natural river system. Therefore, many of the projects identified in the Revitalization Plan including parks, recreation trails, and pedestrian bridges are focused on the [redacted] area. Furthermore, the USACE and the City of [redacted] are in the design phase for the [redacted] Restoration Project, which would restore habitat structure and functions throughout an 11-mile reach of the river, including the [redacted]. Full implementation of projects identified in the [redacted] River Master Revitalization Plan and the [redacted] River Ecosystem Restoration Project could result in beneficial but significant cumulative impacts. An Environmental Impact Statement/Environmental Impact Report (EIS/EIR) was

prepared for the Master Revitalization Plan. Likewise, the City of [redacted] and the Corps jointly prepared an EIS/EIR for the [redacted] Restoration Project.

With a renewed public interest in the revitalized [redacted] River, additional projects are likely. Future projects by non-Federal entities in the next five years within Reach 4D include the [redacted] Pedestrian-Equestrian Bridge. Construction would temporarily affect water quality. However, land uses are expected to remain urban. Thus, the existing water quality impairments are unlikely to change substantially.

The proposed project would primarily result in temporary impacts to biological resources, water quality, hazardous materials, air quality, and noise. However, these impacts would be minor relative to existing impacts associated with the urban environment surrounding the proposed project area. Furthermore, the affected environmental resources would return to pre-project conditions upon completion of work. As such, implementation of the proposed action would result in incremental impacts to the environment, but would not result in significant environmental impacts.

5.0 APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS

Clean Air Act of 1972, as amended, 42 U.S.C. 7401, et seq. *Full compliance.* The total direct and indirect emissions of the federal action would not equal or exceed the USEPA's applicability rates, therefore a general conformity determination is not required.

Clean Water Act of 1972, as amended, 33 U.S.C. 1251, et seq. The project would require a discharge of fill material into jurisdictional waters of the United States. The applicant is required to obtain a Section 404 permit from the US Army Corps of Engineers (Regulatory Division) and a Section 401 permit from the [redacted] Water Quality Control Board prior to initiating in-water construction.

Endangered Species Act of 1973, as amended, 16 U.S.C. 1531, et seq. *Full compliance.* The project would not affect any species or designated critical habitat protected under the Endangered Species Act.

Migratory Bird Treaty Act. *Full compliance.* The applicant is required to remove vegetation outside of the bird nesting season.

National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321, et seq. *Full compliance*. The action will be in full compliance with NEPA upon execution of the FONSI.

National Historic Preservation Act of 1966, as amended, 54 U.S.C. 100101 et seq. No cultural resources listed on or eligible for the National Register of Historic Places are present within the area of potential effects. Therefore, in accordance with 36 CFR 800.4, the proposed action will have no effect. The USACE issued a letter to the [redacted] on November 9, 2018 requesting review and comments on the USACE's APE for this undertaking, concurrence with our determination that no historic properties exist within the USACE's APE, and concurrence with our determination of "no historic properties affected" by the project per 36 CFR 800.4(d)(1). In a letter dated December 13, 2018, the [redacted] stated it appears there are no historic properties located within the project area for this undertaking and did not object to a finding of no historic properties affected for this undertaking.

Executive Order 11988: Floodplain Management. *Full compliance.* Executive Order 11988, signed by President Jimmy Carter on 24 May 1977, and published in 42 FR 26351. Its purpose is to "…avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative." The floodplain adjacent to the project reach is fully urbanized. Furthermore, the project is located within the [redacted] River. Hydraulic impacts associated with the placement of a center pier in the river has been sufficiently mitigated. The project would not increase the risk.

Executive Order 12898, Environmental Justice Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. *Full compliance.* Executive Order 1289 (Federal Actions to Address Environmental Justice in Minority and Low-Income Populations) was signed on February 11, 1994. This order directs

Federal agencies to make achieving environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the U.S. Based on the evaluation above, the project would not result in disproportionate adverse environmental impacts on low income and minority populations.

6.0 PUBLIC INVOLVEMENT

A public notice was made available from March 28 to April 12, 2018 (included in **Appendix I**). All public comments were in favor of the proposed project. No issues were identified during the public comment period.

7.0 ENVIRONMENTAL COMMITMENT MEASURES

The following is a list of the Environmental Commitment measures required to be implemented as part of the 408 Permit:

BIO EC-1: At the conclusion of the project, all temporary fill shall be removed and the area shall be restored to pre-construction conditions (contours and vegetated condition) to the maximum extent practicable. The Permittee shall ensure the previously disturbed areas are maintained and monitored for a period of two years after completing the seeding activities, such that less than 10 percent of the areas disturbed by the project are vegetated by non-native and invasive plant species. Monitoring reports shall be submitted by the Permittee to the USACE [redacted] District Regulatory Division, by May 15th annually, one and two years following hydroseeding, documenting the recovery of the restored areas.

BIO EC-2: Construction limits of the authorized temporary impact zone will be clearly demarcated using highly visible barriers (such as silt fencing), which will be installed under the supervision of a qualified biologist prior to the commencement of work. Construction personnel will strictly limit their activities, vehicles, equipment, and construction materials to the project footprint, including designated staging areas, and routes of travel. The construction areas will consist of the minimal area necessary to complete the proposed project. The fencing will remain in place until the completion of all construction activities. All activities must remain within the authorized temporary and permanent impact zones.

BIO EC-3: A qualified biological monitor will conduct construction monitoring during all vegetation removal, work within the [redacted] River and ground-disturbing activities, such as staging and grading, for the duration of the project to ensure that practicable measures are being employed to avoid incidental disturbance of habitat outside the project footprint and to survey for sensitive wildlife species. When vegetation removal and ground-disturbing activities are not occurring, as-needed monitoring at the project site will occur. Monitoring logs, as appropriate depending on project activities, will be maintained for the duration of the construction activity.

BIO EC-4: Construction equipment will be cleaned of mud or other debris that may contain invasive plants and/or seeds and inspected to reduce the potential of spreading noxious weeds before mobilizing to the site and before leaving the site during the course of construction. The cleaning of equipment will occur at least 300 feet from environmentally sensitive area fencing.

BIO EC-5: To avoid impacts to avian species protected under the Migratory Bird Treaty Act, removal of <u>any</u> vegetation within the proposed project's construction footprint shall occur outside of the migratory bird breeding season (March 1 through September 15).

BIO EC-6: To avoid impacts to roosting arboreal bats, trees shall only be removed during the months outside of the maternity and fledging season (April 1 through September 15).

BIO EC-7: If construction occurs during the bird breeding season, preconstruction surveys for nesting birds shall occur prior to construction activities by a qualified avian biologist. The surveys shall occur within all suitable nesting habitat within the project's impact area, and a 500-foot buffer. If nesting birds are found, an avoidance area will be established

in consultation with the USFWS. The area around each nest would be monitored by a qualified avian biologist until it is determined that the young have fledged or nesting activities have ceased. The same area (project site and buffer) would be re-surveyed if there is a lapse in construction activities for more than **three** days during the bird breeding season.

BIO EC-8: No construction equipment shall be stored in a manner which obstructs wildlife movement through the riverine habitat during non-operational construction hours. No equipment or machinery will be stored in the [redacted] River channel when not in use.

NOISE EC-1: The noise control plan would be developed to reduce construction noise levels such that the ambient noise level is not exceeded by 5 dBA, as determined by a qualified acoustical consultant. Ambient noise increases due to powered equipment are not allowed to exceed 5 dBA in residential areas according to [redacted] Municipal Code (Chapter XI, Section 112.04). The plan shall require:

- Construction contractors shall specify noise-reducing construction practices that will be employed to reduce noise from construction activities. The measures specified by the project sponsor shall be reviewed and approved by the City prior to the issuance of building permits. Measures that can be used to limit noise include, but are not limited to, those listed below.
    - Locating construction equipment as far as feasible from noise-sensitive uses.
    - Requiring that all construction equipment powered by gasoline or diesel engines have sound control devices that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation.
    - Not idling inactive construction equipment for prolonged periods (i.e., more than two minutes).
    - Prohibiting gasoline or diesel engines from having unmuffled exhaust systems.
    - Using noise-reducing enclosures around noise-generating equipment that has the potential to disturb nearby off-site land uses or where otherwise necessary to comply with City Code noise limits for receiving zones.
    - Ensuring that equipment and trucks used for project construction utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, intake silencers, ducts, engine enclosures, acoustically attenuating shields or shrouds) wherever feasible.
    - Monitoring the effectiveness of noise attenuation measures by taking noise measurements.
- Construction activities shall be prohibited outside the hours of 7:00 a.m. to 9:00 p.m. on Monday through Friday and 8:00 a.m. to 6:00 p.m. on Saturdays and national holidays. No construction activity shall occur at any time on Sundays. Construction personnel shall not be permitted on the project site (including laydown and storage areas), and material or equipment deliveries and collections shall not be permitted during the prohibited hours.
- All construction equipment used on the proposed action that is regulated for noise output by a local, state, or federal agency shall comply with such regulation while in the course of project activity and use on-site.
- All construction equipment shall be properly maintained. (Poor maintenance of equipment may cause excessive noise levels.)
- The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.
- Impact tools (e.g., jack hammers, pavement breakers, rock drills) used for project construction shall be hydraulically or electrically powered (where feasible) to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler

on the compressed air exhaust shall be used. Quieter procedures shall be used, such as drills rather than impact equipment, where feasible.

- Construction contractors shall be required to use "quiet" gasoline-powered compressors or electrically powered compressors and electric rather than gasoline- or diesel-powered forklifts for small lifting, where feasible.
- Stationary noise sources, such as temporary generators, shall be located as far from nearby receptors as possible; they shall be muffled and enclosed within temporary enclosures and shielded by barriers, to the extent feasible.
- Construction employees shall be trained in the proper operation and use of the equipment. (Careless or improper operation or inappropriate use of equipment can increase noise levels. Poor loading, unloading, excavation, and hauling techniques are examples of how a lack of adequate guidance and training may lead to increased noise levels.)
- Construction equipment shall be stored on the project site or designated laydown areas while in use, to the extent feasible. This will eliminate noise associated with repeated transportation of the equipment to and from the site.
- Prior to the issuance of the building permit, along with the submission of construction documents, the project sponsor shall submit to the Planning Department and Department of Building Inspection a list of measures for controlling noise and responding to and tracking complaints pertaining to construction noise. These measures shall include:
    - Identification of measures that will be implemented to control construction noise.
    - Identification of locations where it is infeasible to limit noise to be in compliance with applicable City standards.
    - A procedure and phone numbers for notifying the Department of Building Inspection, the Department of Public Health, or the Police Department of complaints (during regular construction hours and off hours).
    - A sign posted on-site describing noise complaint procedures and a complaint hotline number that shall be answered at all times during construction.
    - Designation of an on-site construction complaint and enforcement manager for the project.
    - A plan for notification of neighboring residents and non-residential building managers within 300 feet of the project construction area at least 30 days in advance of extreme noise-generating activities (defined as activities that generate noise levels of 90 dBA or greater) about the estimated duration of the activity and the associated control measures that will be implemented to reduce noise levels.

CUL EC-1: Pursuant to 36 CFR section 800.13, in the event of any discoveries during construction of either human remains, archeological deposits, or any other type of historic property, the City shall notify the USACE's Archeology Staff within 24 hours [redacted] at [redacted] OR [redacted] at [redacted]). The City shall immediately suspend all work in any area(s) where potential cultural resources are discovered. The City shall not resume construction in the area surrounding the potential cultural resources until the USACE re-authorizes project construction, per 36 C.F.R. section 800.13.

CUL EC-2: The City shall have a tribal monitor present during all ground-disturbing activities.

EROSION EC-1: At least thirty (30) days prior to initiating construction, the Permittee shall submit to the USACE [redacted] District a complete set of final detailed grading/construction plans, including dewatering plans, showing all work and structures in the channel. All plan sheets shall be signed, dated, and submitted electronically or on paper no larger than 11x 17 inches. No work in the channel is authorized until the Permittee receives, in writing (by letter or e-

mail), USACE [redacted] District approval of the final detailed grading/construction plans. The Permittee shall ensure that the project is built in accordance with the USACE-approved plans.

WQ EC-1: Construction limits will be clearly demarcated using highly visible barriers (such as silt fencing). Construction personnel will strictly limit their activities, vehicles, equipment, and construction materials to the project footprint, including designated staging areas, and routes of travel. The construction areas will consist of the minimal area necessary to complete the proposed project. The fencing will remain in place until the completion of all construction activities.

WQ EC-2: All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed or designated non-sensitive upland habitat areas. The designated upland areas will be located to prevent runoff from any spills from entering waters of the United States.

WQ EC-3: A construction Storm Water Pollution Prevention Plan (SWPPP) and a soil erosion and sedimentation plan will be developed to minimize erosion and identify specific pollution prevention measures that will eliminate or control potential point and nonpoint pollution sources on-site during and following the project construction phase. The SWPPP will identify specific best management practices (BMPs) to be implemented during project construction to causing or contributing to any water quality standard exceedances. In addition, the SWPPP will contain provisions for changes to the plan such as alternative mechanisms, if necessary, during project design and/or construction to achieve the stated goals and performance standards.

WQ EC-4: Trash will be stored in closed containers and will be removed from the construction site on a daily basis.

WQ EC-5: Water quality shall be visually monitored to ensure that no substantial increases in turbidity occur during construction.

WQ EC-6: All relevant permits and authorizations will be obtained from appropriate agencies (i.e., USACE, RWQCB, EPA) prior to the initiation of construction activities. Permit conditions contained within the permits and authorizations will be employed throughout the duration of the project.

WQ EC-7: Hydrologic connectivity will be maintained within drainages during the duration of construction. Brush, debris material, mud, silt, or other pollutants from construction activities will not be placed within drainages and will not be allowed to enter a flowing stream.

WQ EC-8: Rodenticides, herbicides, insecticides, or other chemicals that could potentially harm water quality will not be used near or within the [redacted] River.

WQ EC-9: No construction equipment or machinery will be staged or stored in the [redacted] River channel when not in use.

WQ EC-10: The Permittee shall provide a covered trash receptacle that is emptied on a regular schedule and/or utilize "no dumping" stencils/tiles and signs would further promote the use of trash receptacles.

HAZ EC-1: Additional soil and groundwater monitoring and analysis. A Soil Management Plan (SMP) shall be prepared and submitted to the [redacted] County Fire Department for review and approval. The SMP shall be implemented during excavation and grading activities in areas of potential soil contamination to ensure contaminated soil encountered is properly identified, removed, and disposed of off-site. The SMP shall include the following provisions:

- A qualified environmental consultant shall be present during grading and excavation activities to monitor compliance with the SMP and to actively monitor the soil and excavations for evidence of contamination.
- Soil encountered during excavation or grading activities that appears to have been affected by hydrocarbons or other contamination shall be tested for potential contaminants and evaluated by a qualified environmental consultant prior to off-site disposal at a licensed facility.
- Soil determined to be contaminated shall be properly removed, handled, and transported to an appropriately licensed disposal facility, in accordance with the SMP.

In the event that groundwater is encountered during construction activities;

- The contractor shall seek the professional recommendation of a qualified environmental consultant specializing in the identification and handling of hazardous materials.
- Groundwater encountered during construction activities shall be tested for potential contaminants and evaluated by the environmental consultant prior to removal or discharge. Under the SWRCB's NPDES General Permit; groundwater obtained during dewatering activities requires that it be sampled if it is to be discharged via surface waters.
- Groundwater determined to be contaminated shall be properly handled and disposed of at a licensed disposal facility per the consultant's recommendations. No amount of contaminated groundwater shall be discharged back into the [redacted] River.

LAND EC-1: In the event that Applicant fails to prevent interference or potential interference with the operation of the Federal Project, the Applicant then shall be responsible to remove the proposed bridge. Removal shall be conducted only after consultation with the USACE [redacted] District and upon modification or amendment of the 408 permit.

LAND EC-2: The proposed bridge is located within the project area for the federal [redacted] Restoration Project [redacted]. In the event the USACE [redacted] District identifies that the proposed bridge would conflict with the design and/or construction of the [redacted], the Applicant shall eliminate the conflict to the satisfaction of the USACE [redacted] District and at the cost of the Applicant by modifying, removing, and/or reconstructing the bridge, pathway, and any associated alterations.

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