Public Draft

Environmental Impact Report for the Three Creeks Trail Pedestrian Bridge Project

Prepared for

City of San José

January 2015

Prepared by

CH2MHILL®

Executive Summary

Introduction

This environmental impact report (EIR) is being prepared by the City of San José (City) to identify and analyze the anticipated environmental impacts of the proposed Three Creeks Trail Pedestrian Bridge Project (proposed project) in Willow Glen, a neighborhood of San José. The proposed project would provide bicycle and pedestrian access on a new bridge structure across Los Gatos Creek, connecting to both Los Gatos Creek Trail and Three Creeks Trail. The project includes removal of the existing structure (former railroad trestle).

Description of the Proposed Project

The proposed project would replace the existing Los Gatos Creek Trestle with a 210-foot-long, single-span steel truss bridge with a poured concrete deck. The new bridge would be on the same alignment as the existing trestle. The wood abutments would be replaced with new concrete abutments supported on driven H-piles. There would be no permanent supports in the creek. Small retaining walls would be installed adjacent to the new bridge abutments to allow for the future Los Gatos Creek trail connection to the northeast and for a viewing area on the south side of the new bridge. On the south side, the bridge would connect to the future Three Creeks Trail system (City of San José, 2014a).

Aesthetic treatments are included in the bridge design. The pedestrian bridge would include design elements that recall the former operators and the trestle structure, including the following: two large emblems inset in the pavement representing the Western Pacific and Southern Pacific railroads, and an interpretive display panel focusing on the timeline and history of the trestle as it relates to the surrounding community.

Summary of Environmental Impacts and Mitigation Measures

Table ES-1 is a brief summary of the significant environmental impacts of the proposed project and the mitigation measures proposed to avoid or reduce impacts. The main body text of the EIR provides detailed discussions of the existing setting, impacts, and mitigation measures.

Alternatives to the Proposed Project

Retrofit Alternative

The Retrofit Alternative would consist of the reuse and repair of the existing Los Gatos Creek Trestle. This alternative would include replacing the existing deck with an 8-inch-thick concrete deck, installing a new 54-inch-high galvanized metal bicycle-safe railing system, as well as making structural modifications to the existing bridge (CH2M HILL, 2012a).

No Project Alternative

Under the No Project Alternative, the City would not replace the Los Gatos Creek Trestle. The existing trestle would remain fenced off from public access for safety reasons, and the planned trail projects would be rerouted.

Summary Comparison of Alternatives

In addition to the impacts summary above, this summary also includes a comparison of key impacts between the proposed project, the Retrofit Alternative, and the No Project Alternative. Key impacts are summarized in Table ES-2. Based on the analysis in Chapters 3 and 6 of this Draft EIR, key differences among the alternatives occur in biological resources, hydrology and water quality, land use, and transportation and traffic. Other impacts would be similar among the alternatives. In the case of cultural resources, it is considered a key resource, although the Los Gatos Creek Trestle is not a historical resource that

TABLE ES-1
Summary of Impacts and Mitigation Measures for Proposed Project

EIR Section and Impact	Significance before Mitigation	Abbreviated Mitigation Measures (see resource sections for full text)	Significance after Mitigation
3.1 Aesthetics			
Cause a substantial adverse effect on a scenic vista	LTS		LTS
Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	NI		NI
Substantially degrade the existing visual character or quality of the site and its surroundings	LTS		LTS
Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area	LTS		LTS
3.2 Air Quality			
Conflict with or obstruct implementation of the applicable air quality plan	NI		NI
Violate any air quality standard or contribute substantially to an existing or projected air quality violation	LTS		LTS
Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)	LTS		LTS
Expose sensitive receptors to substantial pollutant concentrations	LTS		LTS
Create objectionable odors affecting a substantial number of people	LTS		LTS
3.3 Biological Resources			
Substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by California Department of Fish and Wildlife or U.S. Fish and Wildlife Service	LTS		LTS
Substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means	LTS		LTS
Impacts on special-status plant species	LTS		LTS
Impacts on special-status bird species	LTS		LTS
Impacts on migratory and resident bird species	LTS		LTS

TABLE ES-1
Summary of Impacts and Mitigation Measures for Proposed Project

EIR Section and Impact	Significance before Mitigation	Abbreviated Mitigation Measures (see resource sections for full text)	Significance after Mitigation
Impacts on listed salmonid species	LTS		LTS
Impacts on western pond turtle	LTS		LTS
Impacts on common wildlife	LTS		LTS
Substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites	LTS		LTS
Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan	LTS		LTS
Impact BIO-1: Impacts from creosote pile removal	S	MM BIO-1: Minimize impacts from removing creosote piles during bridge demolition.	LTS
Introduction of invasive plant species	LTS		LTS
3.4 Cultural Resources			
Impact CUL-1: Substantial adverse changes in the significance of archaeological resources	S	MM CUL-1: Minimize potential impacts on unknown prehistoric and historic era archaeological sites and resources.	LTS
Disturbance of human remains	LTS		LTS
Substantial adverse changes in the significance of a known historical resource	NI		NI
3.5 Energy			
Would the project use fuel or energy in a wasteful manner?	LTS		LTS
3.6 Geology and Soils			
Cause soil erosion or the loss of topsoil	LTS		LTS
Subject the proposed project to strong seismic ground shaking, resulting in ground failure	LTS		LTS
Subject the proposed project to landslides due to liquefaction or slope instability and expansive soil	LTS		LTS

TABLE ES-1
Summary of Impacts and Mitigation Measures for Proposed Project

EIR Section and Impact	Significance before Mitigation	Abbreviated Mitigation Measures (see resource sections for full text)	Significance after Mitigation
3.7 Greenhouse Gas			
Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment	LTS		LTS
Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases	LTS		LTS
3.8 Hazards and Hazardous Materials			
Create a hazard to the public through the routine transport or disposal of hazardous materials, or an accident involving the release of hazardous materials into the environment	S	See MM BIO-1 for mitigation measure.	LTS
3.9 Hydrology and Water Quality			
Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality	S	MM HYDRO-1: Implement trash control measures.	LTS
Substantial alteration to the existing drainage patterns in a manner that would result in substantial hydraulic changes or flooding upstream or downstream of the project site	LTS		LTS
3.10 Land Use			
Consistency with plans and policies	LTS		LTS
3.11 Noise			
Impact NOI-1: Increase exposure to noise levels in excess of established standards Impact NOI-2: Increase the temporary ambient noise levels above existing levels in the project area	S	MM NOI-1: Notification to all residents of construction and potential noise levels.	LTS
Increase exposure to excessive groundborne vibration or groundborne noise levels	LTS		LTS
Increase permanent ambient noise levels above existing levels within the project area	LTS		LTS

TABLE ES-1
Summary of Impacts and Mitigation Measures for Proposed Project

EIR Section and Impact	Significance before Mitigation	Abbreviated Mitigation Measures (see resource sections for full text)	Significance after Mitigation
3.12 Traffic and Transportation			
Conflict with an applicable congestion management program, including level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways	LTS		LTS
Substantially increase hazards due to a design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)	NI		NI
Result in inadequate emergency access	LTS		LTS
Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities	LTS		LTS
3.13 Utilities and Service Systems			
Be served by a landfill with insufficient capacity to accommodate the project's solid waste disposal needs, or conflict with federal, state, and local statutes and regulations related to solid waste	LTS		LTS
Result in accidents to or disruption of services from existing utilities	LTS		LTS
Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives	LTS		LTS

Notes:

NI = No Impact

LTS = Less than Significant Impact

S = Significant Impact

differentiates the alternatives (see Section 3.4 and Appendix F). The text in the following paragraph summarizes the alternatives, followed by a statement of the *environmentally superior alternative* as required by the California Environmental Quality Act.

Both the proposed project and the Retrofit Alternative would provide a bicycle and pedestrian crossing of Los Gatos Creek on the alignment designated in relevant plans and policies; therefore, both would meet a fundamental City objective. As described Section 1.1, the Retrofit Alternative would not be as cost effective as the proposed project due to long-term maintenance needs. In addition, the Retrofit Alternative may require short-term closures during larger maintenance activities, to undertake future retrofit projects, and to repair fire damage. In terms of environmental impacts, both alternatives would be similar, in that they result in a short-term disruption of the bridge footprint and surrounding areas – temporary impacts would occur in either case, and standard controls and mitigation measures would be implemented to minimize the extent of the impacts. On a long-term basis, the Retrofit Alternative would result in additional environmental impacts that would not occur under the proposed project, primarily the following:

- The Retrofit Alternative includes a 25-foot clear space on either side of the bridge to help protect the timber structure from fire damage. As a result, the Retrofit Alternative would require more vegetation removal than would the proposed project.
- The Retrofit Alternative would require periodic disturbance to the riparian forest as a result of maintenance activities, primarily from clearing debris from the piers following major storms. This would not be required under the proposed project due to the clear-span bridge.
- Environmental benefits associated with pier removal would not occur under the Retrofit Alternative. The clear-span bridge that would be constructed under the proposed project would allow more natural, unobstructed flow conditions with corresponding biological and hydrological benefits.

The No Project Alternative would not provide a bicycle and pedestrian crossing of Los Gatos Creek along the former railroad alignment – a significant impact. The No Project Alternative would be inconsistent with various plans and policies that both support the creation of alternative transportation corridors in general and specifically propose the railroad alignment for bicycle and pedestrian use. In addition, the No Project Alternative would not provide the biological and hydrologic benefits associated with the proposed project, and would require periodic temporary disruptions for maintenance activities.

For the reasons discussed in previous paragraphs, the proposed project is environmentally superior to both the Retrofit Alternative and to the No Project Alternative.

TABLE ES-2
Summary Comparison of Alternatives

Category	Proposed Project	Retrofit Alternative	No Project
Biological Resources	Construction would disrupt instream and riparian habitat. Extensive controls would be used to minimize disruption. Long-term benefits would occur, as creek would no longer be obstructed by piles.	Disruption during construction, and minimization measures, would be the same. Long-term habitat loss would occur from 25-foot maintenance buffers, and benefits of clear-span bridge would not occur. Disruption would occur during periodic maintenance.	Disruption would occur during periodic maintenance.
Cultural Resources	The existing trestle does not meet the criteria for designation as a historical resource; therefore, there would be no impact.	Impacts would be the same as for the proposed project.	Impacts would be the same as for the proposed project.

TABLE ES-2
Summary Comparison of Alternatives

Category	Proposed Project	Retrofit Alternative	No Project
Hydrology and Water Quality	Long-term benefits would occur, as creek would no longer be obstructed by piles.	Benefits of clear-span bridge would not occur.	No change would occur from existing conditions.
Land Use	The project would be consistent with all relevant plans and policies.	The project would be consistent with plans and policies regarding bicycle and pedestrian trails, but not with plans and policies for fiscally sustainable infrastructure and urban/wildland fire hazards and would require short-term closures.	The project would not be consistent with plans and policies.
Transportation and Traffic	The project would be consistent with all relevant plans and policies.	The project would be consistent with plans and policies regarding bicycle and pedestrian trails, but would require short-term closures.	The project would not be consistent with plans and policies.

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Acronyms and Abbreviations

°F	degrees Fahrenheit
AADT	annual average daily traffic
AB	Assembly Bill
ADT	average daily trip
ARB	California Air Resources Board
ATSDR	Agency for Toxic Substances and Disease Registry
BAAQMD	Bay Area Air Quality Management District
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emission Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH_4	methane
CHRIS/NWIC	California Historical Resources Information System, Northwest Information Center
City	City of San José
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
creosote	coal tar creosote
CRHR	California Register of Historical Resources
DTSC	California Department of Toxic Substances Control
EFH	essential fish habitat
EIR	environmental impact report
EO	Executive Order
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIS	Flood Insurance Study

General Plan	*Envision San José 2040 General Plan*
GHG	greenhouse gas
GIS	geographic information system
HEC	Hydraulic Engineering Center
HPAH	PAHs more soluble in water
I-280	Interstate 280
lb	pounds
LOS	level of service
LPAH	PAHs less soluble in water
$\mu g/m^3$	micrograms per cubic meter
MSFCMA	Magnuson-Stephens Fishery Conservation and Management Act
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NPDES	National Pollutant Discharge Elimination System
NO_2	nitrogen dioxide
NO_x	nitrogen oxide
NRHP	National Register of Historic Places
OSHA	Occupational Health and Safety Administration
PAH	polycyclic aromatic hydrocarbons
PCE	passenger car equivalent unit
PM	particulate matter
$PM_{2.5}$	particulate matter less than 2.5 microns in aerodynamic diameter
PM_{10}	particulate matter less than 10 microns in aerodynamic diameter
ppm	parts per million (by volume)
proposed project	Three Creeks Trail Pedestrian Bridge Project
RAS	River Analysis System
ROG	reactive organic gas
RWQCB	Regional Water Quality Control Board
San José Bike Plan 2020	City of San José Bicycle Master Plan
SB	Senate Bill
SCVWD	Santa Clara Valley Water District
SFBAAB	San Francisco Bay Area Air Basin
SO_2	sulfur dioxide
SR-87	State Route 87
SRA	shaded riverine aquatic

SWPPP	stormwater pollution prevention plan
tpy	tons per year
U.S. 101	U.S. Highway 101
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
VMT	vehicle miles traveled
WHO	World Health Organization

CHAPTER 1

Introduction

This environmental impact report (EIR) is being prepared by the City of San José (City) to identify and analyze the anticipated environmental impacts of the proposed Three Creeks Trail Pedestrian Bridge Project (proposed project) in Willow Glen, a neighborhood of San José. The proposed project would provide bicycle and pedestrian access on a new bridge structure across Los Gatos Creek, connecting to both Los Gatos Creek Trail and Three Creeks Trail. The proposed project includes removal of the existing structure (former railroad trestle). Figure 1-1 shows the location of the proposed project and the adjacent areas that would be affected by project construction. The City has prepared this EIR as lead agency to comply with the California Environmental Quality Act (CEQA). This document also identifies Standard Project Conditions and mitigation measures that would be implemented to reduce project impacts, whenever possible, to a less than significant level.

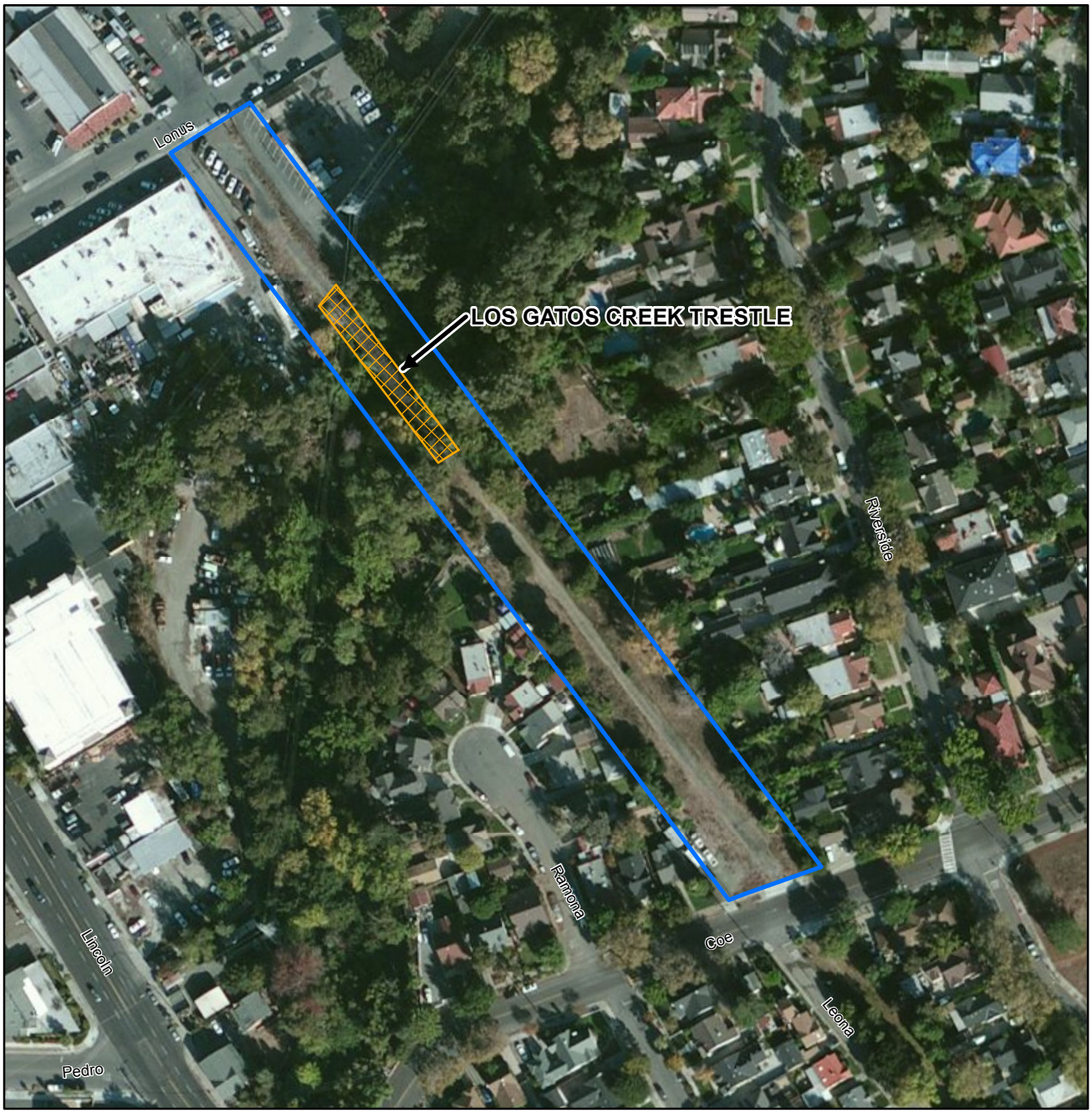
1.1 Background

The City of San José is in the process of developing the Los Gatos Creek Trail and the Three Creeks Trail as part of a citywide effort to improve the pedestrian and bicycle trail system. In 2004, the City of San José completed an environmental impact assessment for the Los Gatos Creek Trail Reach 4 project, including the existing Los Gatos Creek railroad trestle that is the subject of the current analysis (see Figure 1-1).[1] The assessment was completed pursuant to CEQA, and consisted of an Initial Study and Mitigated Negative Declaration (Los Gatos Creek Trail Reach 4 Initial Study/Mitigated Negative Declaration; City Project No. PP04-01-014). The documents were approved and issued June 28, 2004, and a CEQA Notice of Determination was filed December 2, 2004. Trestle retrofits were described in the 2004 CEQA document based on what was known at the time, and did not include work within Los Gatos Creek.

Subsequent to that action, the City further studied the potential to retrofit the trestle as part of an engineering study. The study considered the condition of the structure (about 10 years after the 2004 environmental study) and determined the extent of a retrofit project would be much greater than anticipated by previous engineering and environmental studies. Given the relative merits of a retrofit versus a replacement project, the City decided to advance the replacement project and conducted a new environmental analysis.[2] The City adopted a new Initial Study/Mitigated Negative Declaration (City Project No. PP13-085) on January 14, 2014, and obtained regulatory permits for the replacement project in early 2014. The Initial Study/Mitigated Negative Declaration was the subject of legal action, which resulted in a judicial determination that there was substantial evidence in the record supporting a fair argument that the project may have a significant effect on the environment. The court ordered that an EIR be prepared. Because of the lawsuit, this EIR updates both previous analyses (PP04-01-014 and PP13-085) for the bridge crossing, and includes an analysis of a retrofit alternative.

[1] The entire Reach 4 project, as described in the 2004 review, included trail improvements from Coe Avenue in Willow Glen to Auzerais Avenue in Midtown San José, and is part of the larger 19-mile Los Gatos Trail system from Lexington Reservoir to the Guadalupe River confluence in Downtown San José. Most of the Reach 4 project – a Class I (off-street, paved) pedestrian and bicycle facility approximately 12 feet wide – was recently constructed. The short connection required between the proposed new bridge and the existing Reach 4 trail is discussed in Chapter 4, Cumulative Impacts.

[2] The engineering study evaluated the different approaches using the following criteria: streambed maintenance, structure maintenance, inspection, construction and design cost, time to completion, expected lifespan, neighborhood aesthetics, and environmental permitting. The replacement alternative had the highest rating and an overall present value of $1,648,884. The retrofit alternatives had lower ratings and present values of $1,592.478 and $1,756,798 for the concrete deck and timber deck options, respectively. See Chapter 6, Alternatives, for additional discussion of the retrofit approach and Appendix G for additional details (see Table 16, Alternatives Comparison Matrix, in Appendix G).



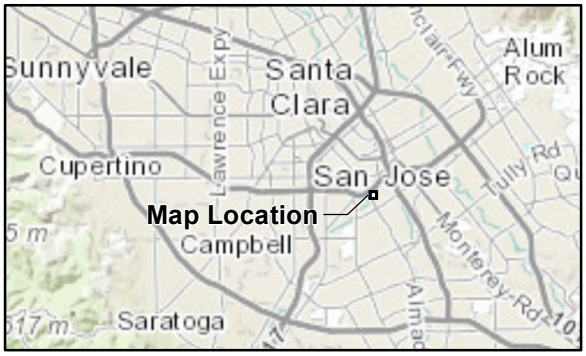
Source: Esri (2010).

LEGEND

Project Area

Bridge Footprint

VICINITY MAP



N

0 100 200 Feet

FIGURE 1-1
Project Location Map
Three Creeks Trail Pedestrian Bridge Project
City of San José
San José, CA

1.2 Project Goals and Objectives

The Los Gatos Creek Trestle was part of a railroad spur within the Willow Glen neighborhood, and was recently acquired by the City. The trestle is in disrepair and does not allow for bicycle and pedestrian use. The objective of the proposed project is to provide a structure for future users of Three Creeks Trail to cross Los Gatos Creek. The City of San José has identified the following goal for the proposed project:

- The structure must be constructed to appropriate engineering standards that provide for bicycle and pedestrian use, in consideration of onsite geological and hydrological conditions.
- The structure must be cost effective in terms of both up-front capital costs and long-term operations and maintenance costs.

1.3 California Environmental Quality Act Environmental Impact Report Process

In accordance with CEQA, an EIR provides objective information regarding the environmental consequences of a proposed project, both to the general public and to the decision makers who will be considering and reviewing the proposed project. The City of San José intends to use this EIR to identify the impacts likely to result from implementation of the proposed project.

The Notice of Preparation was issued on October 10, 2014, for a 30-day review and comment period. A scoping meeting was held on October 21, 2014, in San José's Willow Glen Community Center. Notifications of the scoping meeting were posted on the City's Web site, calendar, and multiple Twitter accounts. Comments from the scoping meeting and review period were received from 21 agencies, organizations, and individuals (see Appendix A). The Draft EIR will be issued in January 2015 for a 45-day public review and comment period. Following the close of the public comment period, the City will prepare and circulate the Final EIR, which will include responses to comments submitted during the comment period. It is expected that the City will take action on the EIR and select its preferred alternative by early summer 2015.

CHAPTER 2

Project Description

2.1 Project Features

The proposed project would replace the existing Los Gatos Creek Trestle with a 210-foot-long, single-span steel truss bridge with a poured concrete deck (see Figures 2-1, 2-2, and 2-3). The new bridge would be on the same alignment as the existing trestle. The wood abutments would be replaced with new concrete abutments supported on driven piles. There would be no permanent supports in the creek. Small retaining walls would be installed adjacent to the new bridge abutments to allow for the future Los Gatos Creek trail connection to the northeast and for a viewing area on the south side of the new bridge. On the south side, the bridge would connect to the future Three Creeks Trail system (City of San José, 2014a).

Aesthetic treatments are included in the bridge design. The pedestrian bridge would include design elements that recall the former operators and the trestle structure, including two large emblems inset in the pavement representing the Western Pacific and Southern Pacific Railroads, and an interpretive display panel focusing on the timeline and history of the trestle as it relates to the surrounding community. Basic design concepts are presented on Figures 2-2 and 2-3, and were developed following community meetings and consultation with local experts. The expected lifespan of the new bridge would be 75 years.

2.2 Project Construction

Construction access to the project site would be from Lonus Street (north side) and from Coe Avenue (south side), with most access occurring on the south side due to greater accessibility to the trestle substructure. The demolition of the existing trestle would require operation of cranes, excavators, and loaders along the length of the bridge. A work lane, approximately 20 feet wide, would be established along the upstream side of the bridge running parallel to the full length of the bridge. The existing trestle deck is supported by a total of 81 wooden piles, with additional support from wood braces. Pile removal techniques would include the following complete- and partial-removal methods:

- Vertical pulling involves gripping the pile with a chain, cable, or collar, and pulling with an excavator or hydraulic crane.
- Vibratory extraction involves attaching a vibratory hammer to the pile to break the seal between the pile and the soil, and pulling with a crane or excavator from the top of the existing bridge deck.
- Horizontal snapping or breaking typically involves pushing or pulling the pile laterally to break off the pile near the ground line.
- Subsurface cutting involves using hydraulic or pneumatic saws or shears attached to an excavator to cut the pile below the ground line.

Partial dewatering of the creekbed may be necessary to protect water quality during demolition and to provide more accessibility for the demolition and construction equipment. Methods considered include diverting all creek flow into a temporary culvert or open channel, or adding clean washed gravel or gravel bags to divert flow to one side of the creekbed while providing a work platform on the opposite side of the creek.

The piles and bridge deck are composed mostly of creosote-treated wood, and demolition would generate a large amount of treated wood waste. Construction debris would be disposed of in accordance with California Department of Toxic Substances Control (DTSC) regulations for treated wood waste.

The construction of the new bridge would involve excavating ground for the abutments and retaining walls using backhoes and excavators, pile driving supports for the new abutments, and placing reinforcing steel

and concrete. These activities would take place on the creek banks. Once the abutments are in place, the bridge would be transported to the site and assembled onsite using large cranes; work would occur both within the creek channel and on top of the creek banks. After the bridge is assembled, the concrete bridge deck would be poured using a concrete pump truck, and the approaches to the bridge would be prepared by placing subbase and concrete pavement. Aggregate paving would be provided to connect the new bridge approaches to the existing trails.

No large-diameter trees are directly under the trestle, but some nearby tree branches hang over the trestle. Overhanging branches would need to be pruned; and, in some cases, nonnative trees would be removed to allow equipment access. It is not expected that any native trees would be removed.

Construction is expected to begin in summer 2015, and last for approximately 7 months.

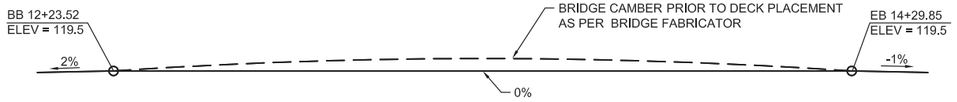
2.3 Maintenance

The new bridge would require limited maintenance, primarily because of its steel construction and lack of structural features in the Los Gatos Creek channel. City staff would perform structural inspections about once every 2 years, and would undertake periodic maintenance (for example, graffiti removal) as needed.

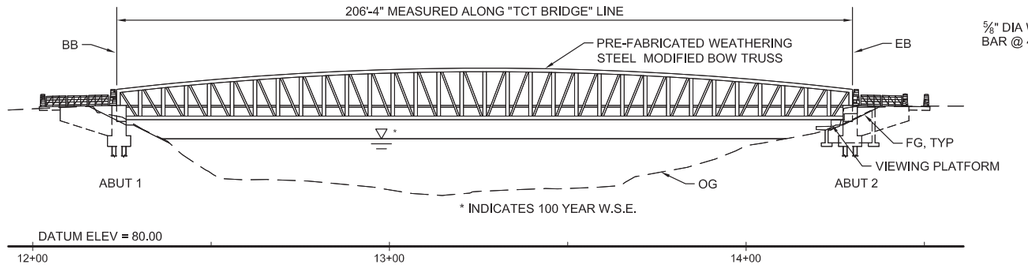
2.4 Permits and Approvals

Construction of the proposed project within the Los Gatos Creek channel would require permits from several natural resources management agencies. Based on the project as approved by the City in early 2014, the following permits and approvals have been obtained and allow for project construction to occur in 2015.

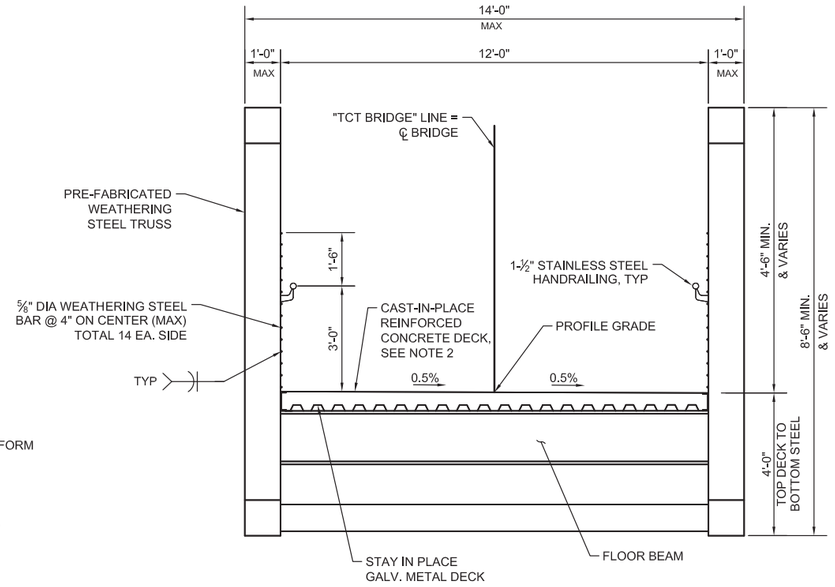
- U.S. Army Corps of Engineers (USACE), San Francisco District – Clean Water Act Nationwide Permit #33 for temporary construction, access, and dewatering within waters of the United States. USACE File Number 2013-00304S, issued April 10, 2014.
- National Marine Fisheries Service – Endangered Species Act consultation for protection of federally listed migratory fish species, and Magnuson-Stephens Fishery Conservation and Management Act (MSFCMA) consultation for protection of essential habitat for commercial fish species. Biological opinion and consultation response issued March 19, 2014.
- San Francisco Bay Regional Water Quality Control Board (RWQCB) – Section 401 Water Quality certification pursuant to the Clean Water Act issued May 13, 2014.
- California Department of Fish and Wildlife (CDFW) – Section 1602 Streambed Alteration Agreement No. 1600-2013-0358-R3 issued January 22, 2014.



PROFILE GRADE
NO SCALE



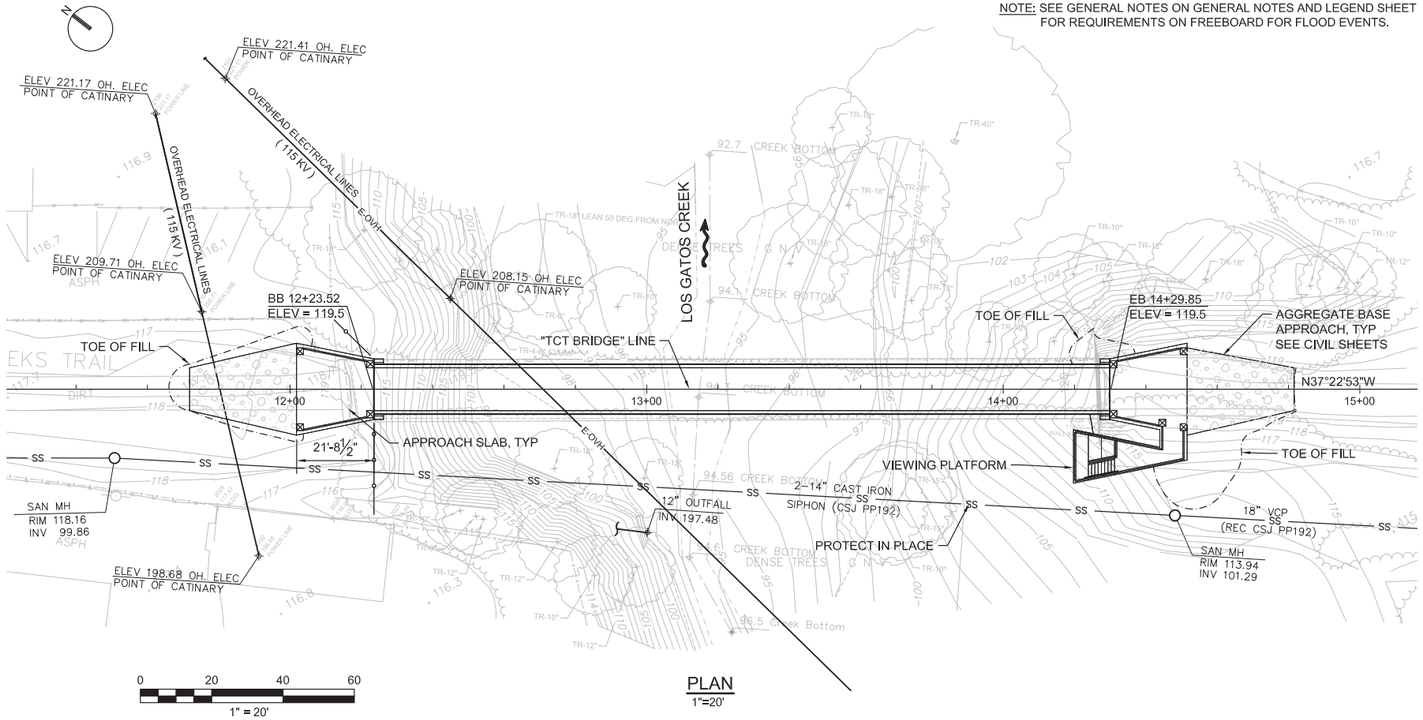
ELEVATION
1"=20'



HYDRAULIC INFORMATION		
RETURN PERIOD	FLOW VOLUME	WATER SURFACE ELEVATION
100 - YEAR EVENT	7,770 CFS	110.15 FT

NOTE: SEE GENERAL NOTES ON GENERAL NOTES AND LEGEND SHEET FOR REQUIREMENTS ON FREEBOARD FOR FLOOD EVENTS.

TYPICAL SECTION
1/2" = 1'-0"



PLAN
1"=20'

INDEX TO BRIDGE PLANS

NOTES:

1. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES AND TREES IN PLACE, UNLESS OTHER WISE NOTED.
2. BRIDGE FABRICATOR SHALL DESIGN CAST-IN-PLACE REINFORCED CONCRETE DECK. CALCULATIONS AND SHOP DRAWINGS MUST BE SUBMITTED FOR REVIEW.

FIGURE 2-1
Bridge Plan
Three Creeks Pedestrian Bridge Project
City of San Jose, CA

CH2MHILL

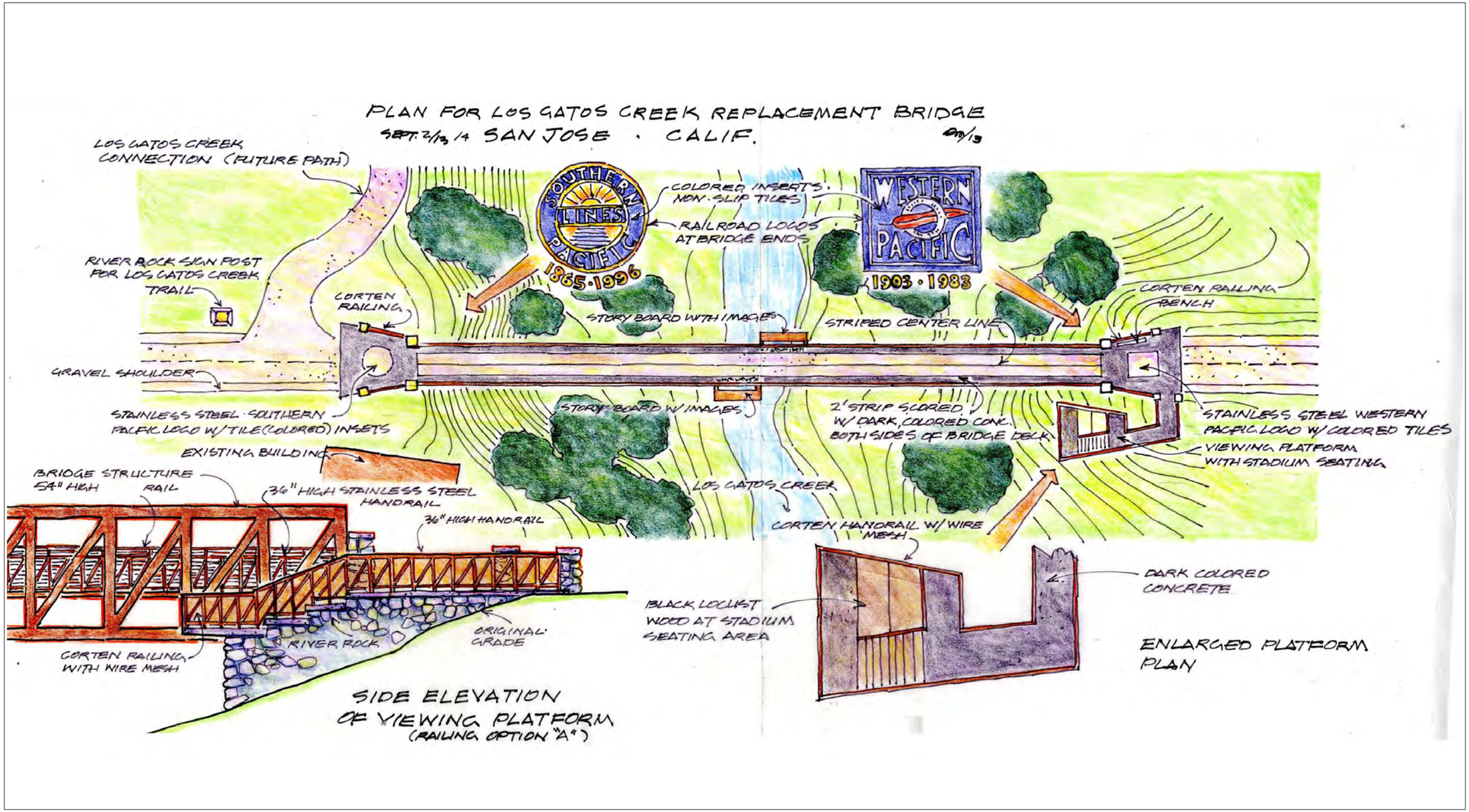


FIGURE 2-2
Schematic Plan View
Three Creeks Pedestrian Bridge Project
City of San Jose
San Jose, CA

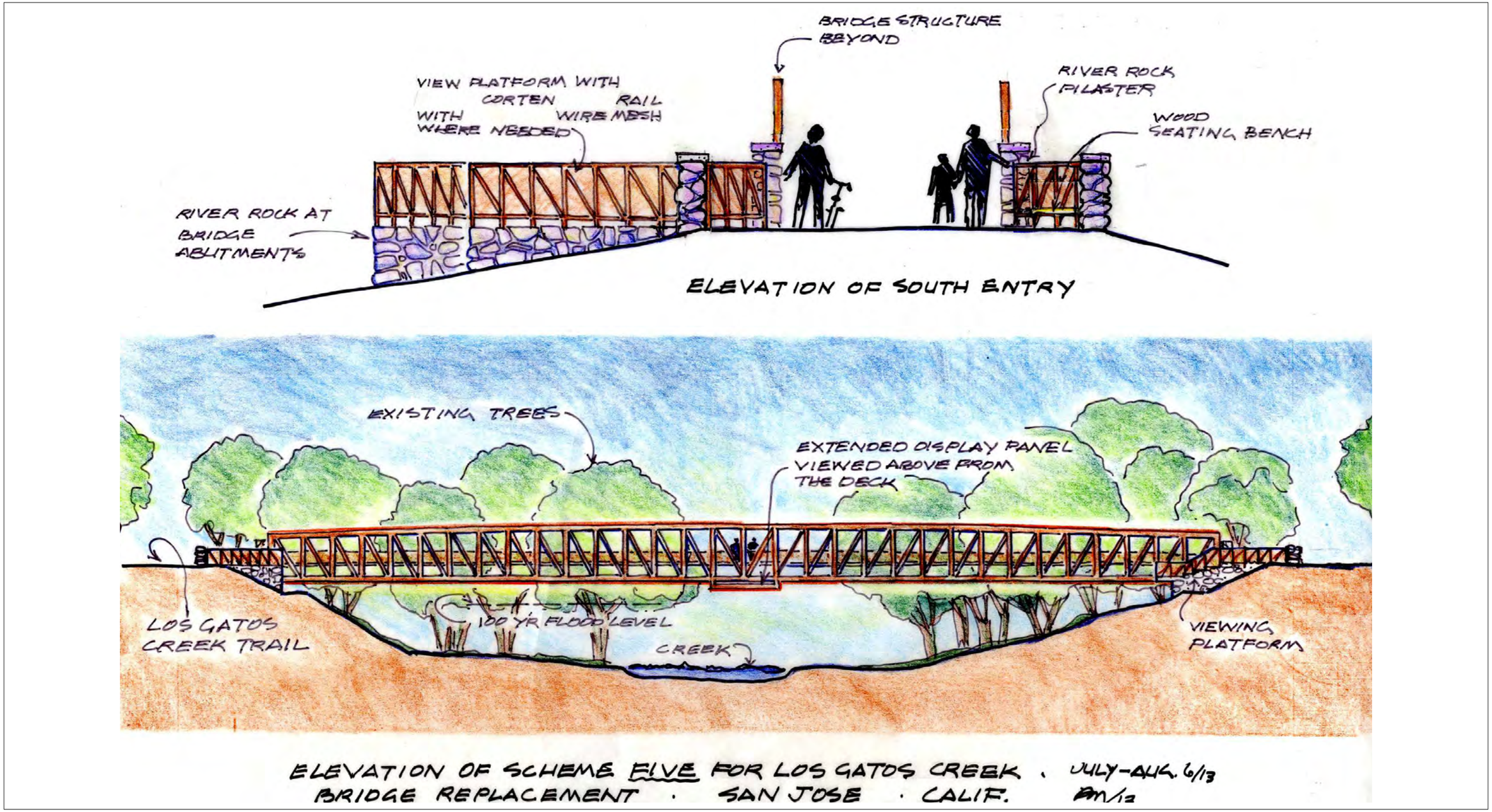


FIGURE 2-3
Schematic Elevation Drawing
Three Creeks Pedestrian Bridge Project
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CHAPTER 3

Environmental Setting, Impacts, and Mitigation

This chapter describes the environmental resources that could be affected by the proposed project, including the anticipated impacts of construction. The analysis includes a discussion of existing regulations for the benefit of environmental conditions, including Standard Project Conditions (such as, requirements of the City of San José municipal code) that all projects are required to implement. Where impacts are determined to be significant even with implementation of Standard Project Conditions, mitigation measures are prescribed. The criteria for determining significance are presented for each resource based on the CEQA Guidelines, local ordinances and guidelines, and professional judgment. The following resources are studied in this document:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gases
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise
- Transportation and Traffic
- Utilities and Public Services

The CEQA Guidelines include a broad checklist of resources that may require consideration (see Appendix G, Initial Study Checklist, of the CEQA Guidelines). Other resources listed in the Initial Study Checklist were considered for their potential for impacts, and were determined to have no adverse effect; therefore, they are not discussed further in this document.[3]

3.1 Aesthetics

This section presents the aesthetics and visual character of the existing bridge and study area, and assesses the impacts of the proposed project.

3.1.1 Environmental Setting

The project area is an existing unused railroad trestle that crosses Los Gatos Creek in an urbanized part of San José. The trestle lies between the Willow Glen and Mid-Town neighborhoods, with a variety of surrounding land uses including commercial, residential, and industrial (see Figure 1-1). The Willow Glen neighborhood was incorporated into San José in the 1920s and is known for its historic architecture and its historic commercial district on Lincoln Avenue between Willow Street and Minnesota Avenue, located approximately 0.5 mile from the trestle. The trestle was built by Western Pacific Railroad and dates to the same period as the early architecture of Willow Glen (see Section 3.4, Cultural Resources).

The trestle is currently in disrepair, and access is blocked by locked gates maintained by the City. The trestle structure is not easily viewed from Coe Avenue or Lonus Street because its surface is at a similar grade as the adjacent creek banks. People that currently walk down into the creek channel are able to view the

[3] These other resources are agricultural and forest resources, mineral resources, paleontology, and population and housing. In addition, recreation is not discussed, as the only effects would be beneficial (that is, supporting implementation of the Three Creeks Trail Master Plan).

structure, but there are no formal paths into the creek, and the City does not post signs or convey permission to access the site on public lands. Adjacent homeowners and businesses have fences along the creek bank, so it does not appear that they can view the structure.

3.1.2 Assessment Methods and Thresholds of Significance

For the purposes of this analysis, visual character and visual quality are defined using *Visual Impact Assessment for Highway Projects* methodology published by the Federal Highway Administration (FHWA, 1988). FHWA methodology is robust and widely used to provide systematic evaluations of visual change across a variety of project types.

According to FHWA, changes in visual character can be identified by the visual compatibility of a proposed project with the existing condition. For this project, the following attributes were considered:

- Form – visual mass and shape
- Line – edges or linear definition
- Color – reflective brightness (light, dark) and hue (red, green)
- Texture – surface coarseness
- Dominance – position, size, or contrast
- Scale – apparent size as it relates to the surroundings
- Diversity – a variety of visual patterns
- Continuity – uninterrupted flow of form, line, color, or textural pattern

Under FHWA, visual quality is evaluated by identifying the vividness, intactness, and unity present in the project corridor, as follows:

- Vividness is the extent to which the landscape is memorable and is associated with distinctive, contrasting, and diverse visual elements.
- Intactness is the integrity of visual features in the landscape and the extent to which the existing landscape is free from nontypical visual intrusions.
- Unity is the extent to which all visual elements combine to form a coherent, harmonious visual pattern.

Implementing the proposed project would cause significant impacts on visual resources if the proposed project would result in any of the following:

- A substantially adverse effect on a scenic vista
- Substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway
- Substantial degradation of the existing visual character or quality of the site and its surroundings
- Creation of a new source of substantial light or glare that would adversely affect day or nighttime views in the area

3.1.3 Environmental Impacts

Cause a substantial adverse effect on a scenic vista?

The project area may be considered to present a scenic vista because it is the crossing of Los Gatos Creek on the proposed Los Gatos Creek Trail Reach 4 and Three Creeks Trail. Los Gatos Creek in this area is preserved in a relatively natural state with a dense corridor of riparian vegetation, and is generally considered to be a scenic amenity (City of San José, 2007a). The trestle itself is considered by some community members to be a point of visual interest that evokes the early period of Willow Glen's development, ties in with historic architecture elsewhere in the community, and is a visual reminder of the early railroad history of the area. The project area also represents a future gateway to Willow Glen from Downtown San José for pedestrians and cyclists along San José's trail network.

As shown on Figure 3.1-1, the existing trestle is an open-deck, pile-supported structure. It is supported by two timber pile abutments and thirteen timber pile bents with five to eight piles each. As shown on Figure 2-2 (and discussed in Section 2.1), the proposed project would consist of a steel truss bridge with concrete deck, and would include benches at both ends of the bridge, a viewing platform on the east end, and aesthetic treatments such as river rock on bridge abutments, tinted concrete, and a rust-colored finish on bridge railings and wire mesh. Railway operations would be recalled with two large emblems representing the Western Pacific and Union Pacific Railroads inset into concrete at the ends of the bridge, a train icon on trail signs, interpretive panels suspended at mid-deck, and a seating area that includes an interpretive panel.

During construction, vegetation would be removed from the construction footprint, and overhanging trees would be pruned. After construction, trees removed during construction would be replanted and allowed to regrow right up to the new bridge. During the 7-month construction period, equipment may be visible to nearby residents, but all construction equipment would be removed once construction is finished.

As described above, the proposed project would represent a visual change from the existing trestle. However, this difference would not constitute a substantially adverse visual impact because the new bridge would have an aesthetically pleasing form and architectural finishes that would blend in with the surrounding environment. The bridge would also include amenities to enhance the visual experience such as benches and a platform from which views could be enjoyed. In addition, the proposed project would be part of a trail system that would allow the greater public to access the bridge and project surroundings. **Design elements incorporated into the proposed project combined with access to viewing points not otherwise available to trail users would have a less than significant impact on a scenic vista**.

Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

The project area is not visible from an officially designated state scenic highway, the closest of which is State Route 9, approximately 7 miles to the southeast. The project area is also not visible from a highway eligible for official state scenic highway designation, closest of which is a stretch of Interstate 280 (I-280) that ends 2 miles to the west at the State Route 17 interchange. **Therefore, the proposed project would not have an impact on scenic resources within a state scenic highway.**

Substantially degrade the existing visual character or quality of the site and its surroundings.

The existing trestle structure is not easily viewed by the public. The low elevation of the structure, in context of creek bank grades, provides no view from the nearby roadways (Coe Avenue and Lonus Street). The public can view the top of the structure from the creek banks, but access onto the structure is restricted because of its condition. There are no existing developed paths or stairs into the creek channel, and none are proposed as part of the project. Upon completion, the proposed project would be more visible to people at Coe Avenue and Lonus Street and trail users because of the vertical truss structure that stands above the surrounding grade. Dense vegetation along the corridor and the orientation of nearby houses would continue to prevent visibility from nearby residences. After the proposed project is complete, views from the project area would be available from the bridge. Views toward the project area would be available from the future Los Gatos Creek Trail Reach 4 extension.

View of wood deck of Willow Glen Trestle

View of trestle substructure over Los Gatos Creek

FIGURE 3.1-1
Existing Willow Glen Trestle
Three Creeks Pedestrian Bridge Project
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Visual character is evaluated by considering the form, line, color, texture, dominance, scale, diversity, and continuity of the existing project area and comparing it to that of the proposed project. The new bridge would alter the visual character of the existing bridge from that of an old trestle structure, an example of early railroad architecture, to that of a more modern, clean-lined structure. In terms of form and line, the new bridge would have fewer supports, so the numerous vertical elements (piles) associated with the trestle substructure would be eliminated. In addition, the new bridge would have a more prominent structure along the sides of the bridge above the foot path – the truss. For these reasons, the, visual effect of the proposed project would be a prominent horizontal band suspended above the creek. These changes may have the effect of somewhat reducing the visual mass of the bridge and its dominance and scale. Overall, the form and line and, therefore, the visual character of the project area would be substantially altered by the proposed project, but the alteration would not be a significant degradation of visual character.

Visual quality is evaluated by identifying the vividness, intactness, and unity present in the existing project area and comparing it to that of the proposed project. As seen on Figure 3.1-1, the existing trestle has a high level of vividness because of its setting on the creek, the surrounding vegetation, and its natural materials and complex lines that evoke the early twentieth century. The existing view has a moderately high level of intactness except where the disrepair of the trestle is visible because of the naturalistic setting in the midst of an urban environment. The unity of the view is also moderately high because the composition of the bridge against the backdrop of vegetation is harmonious.

The visual quality of the new bridge would also have a high level of vividness due to its pleasing shape and materials designed to blend into the surrounding environment. The new bridge would likely have a level of intactness somewhat higher than that of the existing condition because the new bridge would not have vertical supports in the creekbed and would allow views under the bridge. The visual unity of the new bridge would also be high.

The proposed project would not substantially degrade existing visual character and quality; therefore, impacts on visual character and quality would be less than significant.

Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Construction of the new bridge would occur during daylight hours and would not require night lighting. Additionally, the new bridge would not include any permanent lighting and, thus, would not adversely affect day or nighttime views in the area; **therefore, the impact would be less than significant.**

3.1.4 Mitigation Measures

Impacts on aesthetics would be less than significant; therefore, no mitigation measures are required.

3.2 Air Quality

This section presents the existing setting for air quality within the Bay Area Air Quality Management District (BAAQMD) and the impacts of the proposed project on air quality.

3.2.1 Environmental Setting

Following is a description of the regulatory setting for air quality within the study area.

3.2.1.1 National Ambient Air Quality Standards and California Ambient Air Quality Standards

The regulatory setting for air quality in California is overseen by federal, state, and local agencies. These agencies either have actual regulatory authority or are responsible for the development and implementation of programs and plans designed to reduce air pollution levels.

The Clean Air Act of 1970, as amended, serves as the legal basis for air quality policy and regulations at the federal level. Pursuant to this act, the U.S. Environmental Protection Agency (EPA) establishes and

periodically updates National Ambient Air Quality Standards (NAAQS). At state level, the California Air Resources Board (ARB) oversees California air quality policies and regulations. ARB initially established California Ambient Air Quality Standards (CAAQS) in 1969. These state standards are generally more stringent and include more pollutants than NAAQS.

A project must not result in air pollutant emissions that would cause or contribute to exceedances of NAAQS or CAAQS. NAAQS represent the maximum allowable atmospheric concentrations for seven "criteria" pollutants: ozone, nitrogen dioxide (NO_2), carbon monoxide (CO), particulate matter less than 10 microns in aerodynamic diameter (PM_{10}), particulate matter less than 2.5 microns in aerodynamic diameter ($PM_{2.5}$), sulfur dioxide (SO_2), and lead. CAAQS include four additional pollutants of concern: sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particulates.

ARB and the local air districts operate and maintain ambient air quality monitoring stations throughout the state. Depending on whether or not the monitored air quality in a given area meets or exceeds the applicable air quality standards, an area is classified as being in "attainment" or "nonattainment" for the standards, on a pollutant-specific basis. An area that is designated nonattainment for a pollutant standard is subject to planning requirements to attain the relevant standard.

Table 3.2-1 lists relevant NAAQS and CAAQS.

Toxic Air Contaminants. In addition to the criteria pollutants, ARB regulates toxic air contaminants sources and emissions in California. The Air Toxics "Hot Spots" Information and Assessment Act (Assembly Bill [AB] 2588) was enacted September 1987. AB 2588 requires that toxic air emissions from stationary sources (facilities) be quantified and compiled in an inventory, that risk assessments be conducted according to methods developed by the Office of Environmental Health Hazard Assessment for any stationary sources identified as having potentially significant toxic air contaminants emissions, and that the public be notified of significant risks posed by nearby facilities. Since the amendment of the statute in 1992 by enactment of Senate Bill (SB) 1731, facilities that pose potentially significant health risks to the public are required to reduce their risks. ARB has also developed regulations such as air toxic control measures for mobile and stationary sources to reduce toxic air contaminants emissions.

Regional Plans. The proposed project is located in Santa Clara County. BAAQMD is the local agency responsible for developing plans to make sure that federal and state ambient air quality standards are attained in the project area. The most recent air quality plan prepared by BAAQMD in response to federal planning requirements is the *San Francisco Bay Area Ozone Attainment Plan for the 1-hour National Ozone Standard* (BAAQMD, 2001). This plan was adopted by BAAQMD on October 24, 2001, and approved by ARB on November 1, 2001. BAAQMD also adopted the *Bay Area 2010 Clean Air Plan* in September 2010 (BAAQMD, 2010a), which provides an integrated, multipollutant control strategy to reduce emissions of ozone, particulates, air toxics, and greenhouse gases (GHG) in the San Francisco Bay Area Air Basin (SFBAAB). Additionally, although BAAQMD is currently designated as nonattainment for the federal 24-hour and annual $PM_{2.5}$ standards, recent monitoring data indicate that $PM_{2.5}$ levels have decreased in the SFBAAB since 2008. As a result, ARB submitted a "clean data finding" request to EPA on behalf of BAAQMD on December 8, 2011. On January 9, 2013, EPA issued a final rule to determine that the SFBAAB has attained the federal 24-hour $PM_{2.5}$ standard, but the Bay Area will continue to be designated as nonattainment for the federal 24-hour $PM_{2.5}$ standard until a redesignation request and a maintenance plan is submitted to EPA, and EPA approves the proposed redesignation (BAAQMD, 2013a).

BAAQMD is designated nonattainment for state PM_{10} standards and has implemented a Particulate Matter Control Program (BAAQMD, 2013b). The Particulate Matter Control Program includes emission limits for primary PM and PM precursors from stationary sources, wood smoke regulations, and 55 PM control measures outlined in the *Bay Area 2010 Clean Air Plan*.

TABLE 3.2-1
Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS[a]	NAAQS[b]	
			Primary[c]	Secondary[d]
Ozone	8 hours	0.070 ppm	0.075 ppm	0.075 ppm
	1 hour	0.09 ppm	—	—
PM_{10}	Annual arithmetic mean	20 µg/m^3	—	—
	24 hours	50 µg/m^3	150 µg/m^3	150 µg/m^3
$PM_{2.5}$	Annual arithmetic mean	12 µg/m^3	12 µg/m^3	15 µg/m^3
	24 hours	—	35 µg/m^3	35 µg/m^3
CO	8 hours	9.0 ppm	9 ppm	—
	1 hour	20 ppm	35 ppm	—
NO_2	Annual arithmetic mean	0.03 ppm	0.053 ppm	0.053 ppm
	1 hour	0.18 ppm	0.100 ppm	—
SO_2	24 hours	0.04 ppm	—	—
	3 hours	—	—	0.5 ppm
	1 hour	0.25 ppm	0.075 ppm[e]	—
Lead[f]	Calendar quarter	—	1.5 µg/m^3	1.5 µg/m^3
	Rolling 3-month average	—	0.15 µg/m^3	—
	30-day average	1.5 µg/m^3	—	—
Visibility-Reducing Particles	8 hours	[g]	—	—
Sulfates	24 hours	25 µg/m^3	—	—
Hydrogen Sulfide	1 hour	0.03 ppm	—	—
Vinyl Chloride[f]	24 hours	0.01 ppm	—	—

[a]California standards for ozone, CO (except Lake Tahoe), SO_2 (1-hour and 24-hour), NO_2, and suspended particulate matter (PM_{10}, $PM_{2.5}$, and visibility-reducing particles) are values that are not to be exceeded. All others are not to be equaled or exceeded.

[b]National standards other than ozone, PM, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, is equal to or less than the standard.

[c]National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

[d]National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[e]Final rule signed June 2, 2010. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 parts per billion.

[f]ARB has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure for adverse health effects determined. ARB made this determination following the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[g]Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70 percent.

Source: ARB, 2013.

Notes:

µg/m^3 = micrograms per cubic meter
PM = particulate matter
ppm = parts per million (by volume)

3.2.1.2 Existing Conditions

Regional Climate. The proposed project is located in the Santa Clara Valley of Santa Clara County, which is part of the SFBAAB. The Santa Clara Valley is bordered by San Francisco Bay to the north and mountains to the east, west, and south. The Western Regional Climate Center maintains a weather monitoring station at the San José International Airport (#047824) with historical data collected from July 4, 1998 to September 30, 2012. Temperatures at this location have been as low as 24 degrees Fahrenheit (°F) in December and as high as 106°F in June. The annual average maximum temperature is 70.4°F, and the annual average minimum temperature is 49.8°F. The annual total precipitation is 13.5 inches, with an average high of 2.68 inches in January and an average low of less than 0.01 inch in July (Western Regional Climate Center, 2014).

Winds in the valley are greatly influenced by the terrain and generally follow the valley's northwest-southeast axis. A north-northwesterly sea breeze flows through the valley in the afternoon and early evening with a light south-southeasterly drainage flow in the late evening and morning. In the summer, air flowing from Monterey Bay is channeled northward into the valley, combining with prevailing north-northwesterly winds to create a convergence zone.

Wind speeds are greatest in the spring and summer, and weakest in the fall and winter. Winds occur frequently during summer afternoons and evenings, and nighttime and early morning hours frequently have calm winds in all seasons. Strong winds are rare, and associated primarily with an occasional winter storm.

The air pollution potential of the Santa Clara Valley is high. High summer temperatures, stable air, and mountains surrounding the valley combine to promote ozone formation. In addition to the many local sources of pollution, ozone precursors from San Francisco, San Mateo, and Alameda Counties are carried by prevailing winds into the Santa Clara Valley. The valley tends to channel pollutants to the southeast. In addition, on summer days with low-level inversions, ozone can be recirculated by southerly drainage flows in the late evening and early morning, and by the prevailing northwesterlies in the afternoon. A similar recirculation pattern occurs in the winter, affecting levels of CO and PM. This movement of the air up and down the valley increases the impact of the pollutants significantly.

Attainment Status. Table 3.2-2 shows the proposed project is in an area that is currently designated as nonattainment for the federal standards for ozone and $PM_{2.5}$, and maintenance for CO. Under state standards, the project area is designated as nonattainment for ozone, PM_{10}, and $PM_{2.5}$. The project area is designated as attainment/unclassified for all other pollutants.

TABLE 3.2-2
Attainment Status for the Project Area, BAAQMD

Pollutant	Averaging Time	Federal Status	California Status
Ozone	1-hour	NA	Serious nonattainment
	8-hour	Marginal nonattainment	Nonattainment
CO	1-hour	Maintenance	Attainment
	8-hour	Maintenance	Attainment
NO_2	1-hour	Unclassified/Attainment	Attainment
	Annual Arithmetic Mean	Attainment	Attainment
SO_2	1-hour	Attainment	Attainment
	24-hour	Attainment	Attainment
	Annual arithmetic mean	Attainment	Attainment
PM_{10}	24-hour	Unclassified/Attainment	Nonattainment
	Annual arithmetic mean	NA	Nonattainment
$PM_{2.5}$	24-hour	Nonattainment	Nonattainment
	Annual arithmetic mean	Nonattainment	Nonattainment
Lead	30-day	Unclassified/Attainment	NA
	Calendar quarter	NA	NA
	Rolling 3-month average	NA	Attainment

TABLE 3.2-2
Attainment Status for the Project Area, BAAQMD

Sulfate	24-hour	NA	Attainment
Hydrogen Sulfide	1-hour	NA	Unclassified
Visibility-Reducing Particles	8-hour	NA	Unclassified
Vinyl Chloride	24-hour	NA	No information available

Sources:

BAAQMD, 2013a and 2014.

Note:

NA = not applicable

3.2.2 Assessment Methods and Thresholds of Significance

For the current study, air quality impacts during construction have been evaluated based on proposed project construction emissions. Project construction emissions of criteria pollutants have been estimated and compared to significance thresholds established by BAAQMD.

BAAQMD adopted new CEQA thresholds of significance in June 2010. Although the adoption of the new thresholds is the subject of recent judicial actions (BAAQMD, 2012), the lead agency determined that Appendix D of the BAAQMD CEQA Air Quality Guidelines (BAAQMD, 2012), in combination with BAAQMD's *Revised Draft Options and Justification Report* (BAAQMD, 2009), provide substantial evidence to support the BAAQMD-recommended thresholds. Therefore, the BAAQMD 2010 thresholds have been used in this analysis to evaluate the significance of the proposed project's impacts. Table 3.2-3 presents the BAAQMD thresholds used for evaluating the significance of the estimated project construction emissions. Construction emissions of nitrogen oxides (NO_x), reactive organic gases (ROG), CO, SO_2, PM_{10}, and $PM_{2.5}$ were estimated using California Emission Estimator Model (CalEEMod) (California Air Pollution Control Officers Association [CAPCOA], 2013). Appendix B provides the CalEEMod output files that include the construction information and assumptions used to assess air quality impacts.

Current ongoing routine maintenance activities in the project area include infrequent vehicle trips to the site for cleanup after storms. The maintenance typically occurs once or twice during wet years, or once every several years during drought years. Similar maintenance activities would continue after the project construction is completed. Project operation emissions were not calculated because operation of the proposed project would not directly result in any emissions increases.

TABLE 3.2-3
BAAQMD Thresholds of Significance for Criteria Pollutants of Concern

Pollutant	Proposed 2010 Threshold of Significance[a] Construction	Proposed 2010 Threshold of Significance Operation	
ROG	54 lb/day	54 lb/day	(10 tpy)
NOx	54 lb/day	54 lb/day	(10 tpy)
PM_{10} (exhaust)	82 lb/day	82 lb/day	(15 tpy)
$PM_{2.5}$ (exhaust)	54 lb/day	54 lb/day	(10 tpy)
PM_{10} (fugitive dust)	Best management practices	None	
$PM_{2.5}$ (fugitive dust)	Best management practices	None	
CO	None	9 ppm (8-hour average), 20 ppm (1-hour average)	

[a]Source: BAAQMD, 2010b.

Notes:

lb = pounds

tpy = tons per year

Under CEQA, project proponents are required to identify any significant environmental impacts that would occur as a result of their actions. CEQA also requires that project proponents avoid or mitigate any impacts to the extent feasible. BAAQMD has developed specific air quality guidelines for compliance with CEQA (BAAQMD, 2012), which provide criteria on how to assess and mitigate project-related impacts on air quality.

Implementing the proposed project would significantly affect air quality if the proposed project would result in any of the following:

- Conflict with or obstruct implementation of the applicable air quality plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)
- Expose sensitive receptors to substantial pollutant concentrations
- Create objectionable odors affecting a substantial number of people

3.2.3 Environmental Impacts

Conflict with or obstruct implementation of the applicable air quality plan.

The most recent air quality plan prepared by BAAQMD in response to federal planning requirements is the *San Francisco Bay Area 2001 Ozone Attainment Plan for the 1-hour National Ozone Standard* (BAAQMD, 2001). BAAQMD also adopted the *Bay Area 2010 Clean Air Plan* in September 2010, which provides an integrated, multipollutant control strategy to reduce emissions of ozone, particulates, air toxics, and GHGs (BAAQMD, 2010a). The proposed project would be constructed in compliance with the applicable BAAQMD regulations and policies and best management practices (BMP), and would be implemented to reduce criteria pollutants emissions. In addition, as discussed below, construction emissions would be below the BAAQMD CEQA significance thresholds. Because project construction activity would be consistent with the regional and local air quality planning strategy, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan.

Operational emissions from the proposed project and the subsequent air quality impact are expected to be negligible because the bridge is for bicycle and pedestrian access, and no emission increases are expected from vehicle travel in the area. In addition, the proposed project would not cause a change of the ongoing maintenance activities of the area. **Therefore, the proposed project would have no air quality impacts on local air quality planning strategies, nor would the proposed project conflict with an air quality plan.**

Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Construction of the proposed project would cause temporary minor increases in ambient air pollutant concentrations. Given that construction activities and emissions would be temporary and the project operational emissions from routine maintenance activities would not increase from current levels, long-term impacts would not occur. Construction emissions have been estimated using CalEEMod and are summarized in Table 3.2-4. The estimated construction emissions would be below the 2010 BAAQMD construction thresholds, as shown in Table 3.2-4.

TABLE 3.2-4
Project Construction Emissions and Comparisons to 2010 BAAQMD CEQA Thresholds

	ROG (lb/day)	CO (lb/day)	NOx (lb/day)	SO_2 (lb/day)	PM_{10} Exhaust (lb/day)	$PM_{2.5}$ Exhaust (lb/day)	PM_{10} Fugitive Dust (lb/day)	$PM_{2.5}$ Fugitive Dust (lb/day)
2015 (Maximum Daily)	4.48	25.1	47.1	0.048	2.31	2.15	0.54	0.12
2016 (Maximum Daily)	3.79	22.1	40.5	0.047	1.90	1.78	0.35	0.094
BAAQMD 2010 Threshold (Daily Average Emissions)	54	None	54	None	82	54	BMP	BMP
Exceed BAAQMD CEQA Threshold?	No	NA	No	NA	No	No	No	No

Notes:

Thresholds are from BAAQMD CEQA Guidelines (BAAQMD, 2010b).

NA = not applicable

Construction emissions would be below the BAAQMD-proposed CEQA thresholds, and the project operations would not result in a significant increase in air emissions. The proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. In addition, the proposed project would implement applicable criteria pollutant control measures identified by BAAQMD in its latest CEQA Guidelines (BAAQMD, 2012). Applicable construction emission control measures may include, but are not limited to, the following:

Standard Project Conditions

- All exposed surfaces (for example, parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered twice per day.
- All haul trucks transporting soil, sand, or other loose material offsite shall be covered.
- All visible mud or dirt trackout onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once a day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of *California Code of Regulations*). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- A publicly visible sign shall be posted with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Because the proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation, impacts would be less than significant.

Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).

In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels at which a project's individual emissions would be cumulatively considerable. Projects that would not exceed the significance thresholds are not considered to be cumulatively significant. As described above, the proposed project construction emissions would be lower than the BAAQMD significance thresholds. Additionally, the construction emissions would be temporary, and the maximum daily emissions would occur for only a portion of the construction period. **Because the proposed project would emit pollutants below the thresholds of significance for an individual project, it would not result in a cumulative considerable emission increase of nonattainment pollutants (PM_{10}, $PM_{2.5}$, and the ozone precursors NOx and ROG); therefore, this impact is less than significant.**

Expose sensitive receptors to substantial pollutant concentrations.

As discussed in previous sections, project construction emissions would be below the CEQA thresholds and would cease once construction is complete; therefore, the proposed project would not expose nearby receptors to substantial criteria pollutant concentrations. Exhaust emissions from construction equipment would contain toxic air contaminants, such as diesel particulate matter, that have potential cancer and noncancer chronic health effects.

The construction site is bounded by industrial/commercial land use on the north and west side. The closest residential receptor is approximately 175 feet to the east, and the closest school is approximately one-quarter mile south of the construction site. Residential areas are located near the construction site, but construction activities would only last several months and would be limited to a relatively small area where only a few pieces of construction equipment would be operating at a time. Exposures to the toxic air contaminant emissions from the construction activities would be short term, and long-term exposure to diesel particulate matter from construction would not occur. In addition, the project construction is required to implement the BMPs and follow the emission control measures described in the CEQA Guidelines, including minimizing idling times and maintaining equipment in good condition. These measures would help minimize the exposure of nearby sensitive receptors to the construction-related pollutants. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations during construction. **The proposed project would have less than significant impacts on the nearby sensitive receptors during construction.**

Create objectionable odors affecting a substantial number of people.

The use of diesel construction equipment during project construction may generate minor odors near the equipment. Construction emissions would be temporary and are not expected to create objectionable odors affecting a substantial number of people. The proposed bridge would not emit odorous compounds. **Because the proposed project is unlikely to be a source of objectionable odors that would affect a substantial number of people, the project impact due to odor would be less than significant.**

3.2.4 Mitigation Measures

Mitigation measures are not required because the proposed project would have less than significant impacts during construction, and no impacts are expected during operation.

3.3 Biological Resources

This section describes the environmental setting for terrestrial and fish (or biological) resources within the study area and analyzes the potential for species and habitat to be affected by implementation of the proposed project.

3.3.1 Environmental Setting

The study area includes areas that may be affected directly or indirectly by the proposed project. For the purposes of this EIR, the study area includes all areas of the proposed project as described in Chapter 2, Project Description. In addition to a review of California Natural Diversity Database (CNDDB) (CDFW, 2014),

the U.S. Fish and Wildlife (USFWS) online Federal Endangered and Threatened Species List for the San José West, 7.5-minute Quadrangle and Santa Clara County (USFWS, 2014), and the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California (CNPS, 2014), biological surveys of the study area were conducted in June 2013, April 2014, May 2014, and November 2014.

3.3.1.1 Natural Communities and Associated Plant and Wildlife Species

The project site is within a highly developed area in central San José. Three natural communities were identified within the project area: mixed riparian forest, aquatic, and ruderal/developed lands (see Figure 3.3-1).

Mixed Riparian Forest. The mixed riparian vegetation that characterizes the project site consists of native trees, including red willow (*Salix laevigata*), arroyo willow (*S. lasiolepis*), box elder (*Acer negundo*), California black walnut (*Juglans hindsii*), and California black cottonwood (*Populus trichocarpa*), and nonnative trees, including black locust (*Robinia pseudoacacia*), tree of heaven (*Alianthus altissima*), and blue gum (*Eucalyptus globulus*). Native and nonnative tree sizes range from 5 to 20 inches in diameter at a height of 24 inches above natural grade. The understory and groundcover is dominated by a mix of riparian and ruderal species, including California blackberry (*Rubus ursinus*), mugwort (*Artemisia douglasiana*), smilo grass (*Stipa milacea*), cocklebur (*Xanthium strumarium*), and fennel (*Foeniculum vulgare*), as well as the invasive giant reed (*Arundo donax*) and English ivy (*Hedera helix*). Most of the ruderal species extend into the riparian understory from adjacent nonnative herbaceous habitat. Approximately 0.53 acre of mixed riparian forest lies within the project area (CH2M HILL, 2013a).

The presence of year-round water and abundant invertebrate fauna provide foraging opportunities for wildlife, and the diverse habitat structure provides cover and nesting opportunities. The riparian vegetation within the project area typically provides habitat for wintering and migrating birds, such as the ruby-crowned kinglet (*Regulus calendula*) and yellow-rumped warbler (*Dendroica coronata*), and breeding habitat for migrants, such as warbling vireo (*Vireo gilvus*), orange-crowned warbler (*Vermivora celata*), Wilson's warbler (*Wilsonia pusilla*), and black-headed grosbeak (*Pheucticus melanocephalus*). Other birds found within riparian areas of San José are the black phoebe (*Sayornis nigricans*), spotted towhee (*Pipilo maculatus*), and Swainson's thrush (*Catharus ustulatus*). The mixed understory in this habitat likely supports a variety of mammals, reptiles, and amphibians including raccoons (*Procyon lotor*), garter snakes (*Thamnophis* spp.), and Pacific treefrogs (*Pseudacris regilla*) (City of San José, 2004).

Aquatic Habitat. Aquatic habitat is considered to have significant value to wildlife resources. The project area overlaps with the aquatic habitat of Los Gatos Creek at the existing railroad trestle bridge. Los Gatos Creek provides habitat for a variety of fishes, including the following native species: California roach (*Hesperoleucus symmetricus)*, hitch (*Lavinia exilicauda*), Pacific lamprey (*Lampetra tridentata)*, prickly sculpin (*Cottus asper*), riffle sculpin (*Cottus gulosus*) presumably above Lexington Reservoir, Sacramento sucker (*Catostomus occidentalis*), threespine stickleback (*Gasterosteus aculeatus*), and Central California Coast steelhead (*Oncorhynchus mykiss*), a federally protected species with threatened status (Alley, 2012; City of San José, 2004; LSA Associates, Inc., 2005). Fall-run Chinook salmon (*Oncorhynchus tshawytscha*), a species of federal concern without protected status in Los Gatos Creek, has been detected in the Guadalupe River watershed and has spawned in Los Gatos Creek. The normally perennial flow maintained in Los Gatos Creek to its mouth in recent years (until the present drought in 2014) has made it attractive to these Chinook salmon. A number of nonnative fish species have been detected in the Guadalupe watershed, with some captured in Los Gatos Creek. They include bluegill (*Lepomis macrochirus)*, brown bullhead (*Ictalurus nebulosus*), carp (*Cyprinis carpio*), green sunfish (*Lepomis cyanellus)*, goldfish (*Carassius auratus*), largemouth bass (*Micropterus salmoides)*, mosquito fish (*Gambusia affinis)*, pumpkinseed (*Lepomis gibbosus*), and red shiner (*Notropis lutrensis*) (Alley, 2012; LSA Associates, Inc., 2005). The relatively dense riparian forest provides shaded riverine aquatic (SRA) habitat, which helps to cool water temperatures for salmonid fishes such as steelhead and salmon. Approximately 0.12 acre of aquatic habitat lies within the project area. This aquatic habitat is subject to the regulatory jurisdiction of USACE, CDFW, and RWQCB.

Source: Esri (2010).

LEGEND

Project Area

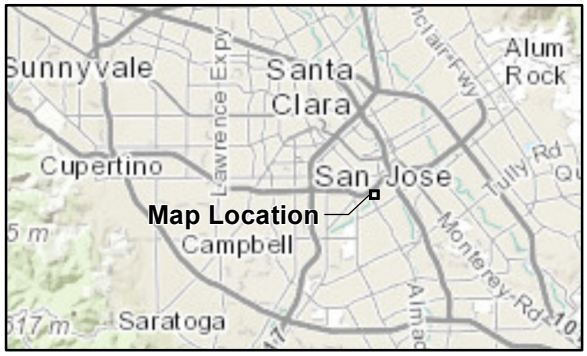
Vegetation Communities

Mixed Riparian Forest = 0.53 acre

Developed Lands = 1.55 acre

Aquatic Habitat = 0.12 acre

VICINITY MAP



N

0 100 200 Feet

FIGURE 3.3-1
Natural Communities Map
Three Creeks Pedestrian Bridge Project
City of San José
San José, CA

Ruderal and Developed Lands. Developed areas within the project area, including the existing dirt trail and the railroad trestle bridge, support no natural vegetation. Ruderal habitat dominated by nonnative forbs, including Italian thistle (*Carduus pycnocephalus*), fennel, black mustard (*Brassica nigra*), and Smilo grass, occur adjacent to the dirt trail and extend into the upper banks of the creek. Approximately 1.55 acres of developed/ruderal habitat occurs within the project area. Developed/ruderal areas can support certain wildlife species adapted to the unique nesting and foraging opportunities found there, but wildlife abundance and diversity are generally low in these areas. Striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), and Virginia opossum (*Didelphis virginiana*) occur regularly in urban habitats. Bird species adapted to urban landscapes include house finch (*Carpodacus mexicanus*), northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), house sparrow (*Passer domesticus*), and rock dove (*Columba livia*) (CH2M HILL, 2013a).

3.3.1.2 Wetlands and Other Waters

The project footprint spans the Los Gatos Creek riparian corridor just upstream of its confluence with the Guadalupe River and is characterized primarily by the low flow channel with a raised terrace and steep-sloped banks to the north and south. The Los Gatos Creek is the largest tributary to the Guadalupe River and joins the river approximately 0.5 mile northeast of the project site near Downtown San José. The creek originates in the Santa Cruz Mountains near Loma Prieta Peak and flows northwest to Lexington Reservoir, then into the cities of Los Gatos, Campbell, and San José before draining into the Guadalupe River in southeast San José. The creek has been modified by human activities for over 70 years, beginning in the 1950s when the creek was diverted into a concrete gulch through Los Gatos to support construction of State Route 17 by California Department of Transportation (Caltrans). Additional modifications were completed in the 1950s, including the James J. Lenihan Dam forming the Lexington Reservoir (City of San José, 2004).

Lexington and Vasona Reservoirs regulate flows in Los Gatos Creek. Vasona Reservoir is the smallest reservoir maintained by Santa Clara Valley Water District (SCVWD), at 400 acre-feet. Lexington Reservoir is the larger of the two reservoirs, and releases are made during summer for groundwater recharge as flows are percolated into the groundwater upstream of its confluence with the Guadalupe River (SCVWD, 2009a). Nine percolation facilities are located in the Guadalupe River watershed. Six of the nine percolation ponds are located adjacent to Los Gatos Creek. Supplies to percolation ponds include diversions from the creek and releases from SCVWD pipelines (imported water supplies and supplies transferred from other reservoirs). In recent years, SCVWD has maintained perennial flow in Los Gatos Creek to its confluence with Guadalupe River (Smith, 2014, personal communication). However, in 2014, lower Los Gatos Creek was dry during summer months and had isolated pools in early November after early rainfall.

CH2M HILL conducted a wetland and other waters assessment on June 17, 2013. The assessment delineated a jurisdictional waters of the United States within the project footprint (CH2M HILL, 2013b). The total jurisdictional area delineated along Los Gatos Creek within the project area is approximately 100 linear feet (0.12 acre), as defined by the ordinary high water mark, and subject to regulation by USACE and RWQCB. Adjacent wetlands were absent from the site. USACE verified these results onsite with CH2M HILL on March 25, 2014. The total jurisdictional area subject to regulation by CDFW extends to the edge of the riparian corridor and totals approximately 1.55 acres.

3.3.1.3 Special-Status Species

The natural communities identified on the project site are limited in size and generally disturbed, thereby precluding occurrence of most special-status plants of the region, which typically occur in open grassland, chaparral, and woodlands. Furthermore, upland areas outside the creek corridor are characterized by nonnative and invasive plant species, which significantly reduces their capacity to support special-status plant and wildlife species. Therefore, only species adapted to riparian and aquatic habitats are considered as potentially occurring at the project site.

Plants. Plant species of concern include those listed by federal or state resource agencies and those identified as rare by the CNPS. The CNDDB, CNPS, and USFWS databases were queried for special-status

species records within a 5-mile radius of the project site. Plant species for which there is marginally suitable habitat within the potential impact area include the western leatherwood (*Dirca occidentalis*), Loma Prieta hoita (*Hoita strobilina*), arcuate bush-mallow (*Malacothamnus arcuatus*), maple-leaved checkerbloom (*Sidalcea malachroides*), and the federally listed endangered robust spineflower (*Chorizanthe robusta* var. *robusta*) (CDFW, 2014; CNPS, 2014; USFWS, 2014). No special-status plant species have been observed within the boundaries of the proposed project, and visual observations during site visits in 2013-2014 and over the past decade indicate the potential for plant species of concern is low (City of San José, 2004). In addition, the federally endangered robust spineflower is believed to be extirpated from Santa Clara County (NatureServe, 2013), and suitable habitat for this species was not observed onsite. Therefore, given the lack of suitable habitat (that is, absence of serpentine grassland, coastal prairie, chaparral, vernal pools, sandstone, or mudstone bedrock overlain with thin soils), the disturbed nature of the project area, and no special-status species observations in the project area during the site visits, special-status plants are not expected onsite.

Wildlife. Sensitive wildlife species are defined as follows: (1) animals listed as threatened or endangered by federal or state resource agencies; (2) animals identified as federal or state species of special concern; or (3) migratory birds, protected by the federal Migratory Bird Treaty Act. Special-status wildlife species that may occur within the creek or the potential impact area are the peregrine falcon (*Falco peregrinus anatum*), merlin (*Falco columbarius*), sharp-shinned hawk (*Accipiter striatus*), Cooper's hawk (*Accipiter cooperii*), willow flycatcher (*Empidonax traillii*), California yellow-warbler (*Dendroica petechia*), tricolored blackbird (*Agelaius tricolor*), yellow-breasted chat (*Icteria virens*), Central California Coast steelhead, Central Valley Chinook salmon (fall and late-fall run), and western pond turtle (*Emys marmorata*) (CDFW, 2014; USFWS, 2014). Details on these habitat requirements and known occurrences in the region for the wildlife species are mentioned below.

Special-Status Birds (Including Migratory Birds). The Los Gatos Creek riparian corridor within the project footprint supports suitable foraging habitat for all eight special-status species known from the region, as well as other migratory and resident birds including common raptors. During the field visit, several resident bird species were observed foraging throughout the project area including Anna's hummingbird (*Calypte anna*), house finch, and black phoebe, but no songbird nests, raptor stick nests, nor suitable burrows were observed. In addition, the existing bridge was clear of any active or unoccupied nests. Suitable nesting habitat for common resident bird and migratory birds does exist within and adjacent to the project area.

Special-Status Fish Species and Essential Fish Habitat. Central California Coast steelhead is an anadromous form of rainbow trout that migrates upstream from the ocean to spawn. Steelhead usually spawn in clear, cool, perennial sections of relatively undisturbed streams. Preferred streams typically support dense canopy cover that provides shade, woody debris, and organic matter. Streams in which spawning occurs are usually free of rooted or aquatic vegetation. Eggs are laid in gravel substrates in pools. Steelhead usually cannot survive long in pools or streams with water temperatures consistently above approximately 70°F. Despite their general requirement for cool water, steelhead can tolerate warmer water habitats if food is available, such as at fast water riffles where fish can feed on drifting insects. Steelhead typically spawn between December and April, when stream flows are adequate to allow upstream migration. Steelhead eggs remain in gravel depressions, known as redds, for 1.5 to 2.5 months before hatching and emerging from their redds. After hatching, young steelhead use the shallow protected stream margin areas of deeper reaches of streams as rearing areas and will remain in freshwater systems for 1 to 4 years before migrating to the ocean. After migration, steelhead typically grow rapidly for 2 to 3 years in the ocean before returning to freshwater streams to spawn. Unlike other salmonids, steelhead do not necessarily die after spawning. Many adults survive and return to the ocean after spawning, coming back to spawn for one or more additional seasons.

The Central California Coast steelhead distinct population segment is known to migrate and spawn in the Guadalupe River watershed, including the lower reaches of Los Gatos Creek (SCVWD, 2009a). In addition, critical habitat for this species is designated within the Guadalupe River watershed, but this designation

does not extend into Los Gatos Creek. During the November 2014 field visit, only potential migration habitat was observed; whereas, no spawning habitat was evident. For more details on aquatic habitat features within the project area from the November 2014 field visit, see Appendix C.

Central Valley Chinook salmon is a federal candidate species for listing and a state species of special concern. California streams support the southernmost Chinook salmon runs on the West Coast. Chinook salmon in California display a wide array of life history patterns that allow them to take advantage of the diverse and variable riverine and ocean environments. Chinook salmon are anadromous fish, migrating upstream as adults to spawn in freshwater streams and migrating as juveniles downstream to the ocean to grow and mature. The time spent in the ocean and fresh water varies greatly among the various runs. Fall-run Chinook salmon migrate upstream as adults from July through December and spawn from early October through late December. The timing of runs varies from stream to stream. Late-fall-run Chinook migrate into the rivers from mid-October through December and spawn from January through mid-April. The majority of young salmon of these races migrate to the ocean during the first few months following emergence, although some may remain in fresh water and migrate as yearlings. They are currently the most abundant of the Central Valley races, contributing to large commercial and recreational fisheries in the ocean and popular sport fisheries in the freshwater streams. Fall-run Chinook are raised at five major Central Valley hatcheries that release more than 32 million smolts each year.

The Central Valley Chinook late-fall run is occasionally seen migrating into the Guadalupe River (SCVWD, 2009a). Like steelhead, Chinook salmon have been documented in the lower reaches of Los Gatos Creek. Spawning in Los Gatos Creek has been observed from immediately upstream of the Guadalupe River to near Bascom Avenue (SCVWD, 2002). Therefore, Chinook salmon may be present during project activities. It is important to note that recent genetic testing on Guadalupe River fall-run populations has demonstrated that a majority of the fish tested do not belong to naturally spawned populations, but derive from hatchery stock, and it is not known if populations have naturalized; therefore, their special-status designation may not apply (SCVWD, 2007 cited in SCVWD, 2009a). During the November 2014 field visit, only potential migration habitat was observed; whereas, no spawning habitat was evident. For more details on habitat features within the project area for Chinook salmon, see Appendix C.

Essential fish habitat (EFH) is defined as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity” (Pacific States Marine Fisheries Commission, 2013). Potential habitat for Pacific Chinook salmon within the project area is designated as freshwater EFH for Pacific Chinook salmon. The project effects on Pacific Chinook salmon are covered under provisions of the MSFCMA (Public Law 94-265).

Despite the evidence that Chinook salmon may not be native to the Guadalupe River watershed, under the MSFCMA, the project area would be considered historical Chinook salmon freshwater EFH. Freshwater EFH for Chinook salmon consists of four major components: (1) spawning and incubation, (2) juvenile rearing, (3) juvenile migration corridors, and (4) adult migration corridors and adult holding habitat (Pacific States Marine Fisheries Commission, 1996). Important features of essential habitat for spawning, rearing, and migration include adequate substrate composition; water quality; water quantity, depth, and velocity; channel gradient and stability; food, cover, and habitat complexity; space; access and passage; and floodplain and habitat conductivity (Pacific States Marine Fisheries Commission, 1996). Chinook salmon essential freshwater habitat includes all those streams, lakes, ponds, wetlands, tributaries, and other water bodies currently viable, and most of the habitat historically accessible to Chinook salmon within Washington, Oregon, Idaho, and California. Open-water habitats of Los Gatos Creek within the project area falls under that definition.

Western Pond Turtle. Western pond turtle is a state species of special concern. The western pond turtle ranges in size from 3.5 to 7 inches and is the only freshwater turtle native to the Bay Area. It occurs in ponds and small lakes with abundant vegetation. It is also found in marshes, slow-moving streams, reservoirs, and occasionally brackish water. The western pond turtle feeds on aquatic plants (such as, pond lilies), beetles,

aquatic invertebrates, fishes, frogs, and carrion. It requires basking sites such as partially submerged logs, rocks, mats of floating vegetation, or open mud banks, as well as underwater retreats to hide from predators and humans. Females deposit their eggs in nests in sandy banks or, in the case of foothill streams, in upland areas away from the stream. Nests have been observed in many soil types, from sandy to very hard, and have been found up 325 feet from the water. Hatchlings and juveniles are preyed on by certain fish species, bullfrogs, garter snakes, wading birds, and some mammals.

Suitable egg-laying and foraging habitat for this species occurs within the project footprint as there are some protected sandy or grassy areas adjacent to the creek in this section of the watershed. In addition, there is one known occurrence reported from the project vicinity along the Guadalupe River near the Almaden Expressway bridge. Therefore, western pond turtle may occur within or adjacent to the work area.

3.3.1.4 Invasive Species

Invasive plant species include those listed by California Department of Food and Agriculture and California Invasive Plant Council. Several invasive species are known to occur within the project area including English ivy, smilo grass, giant reed, Himalayan blackberry (*Rubus armeniacus*), fennel, black locust, tree of heaven, and red gum (*Eucalyptus camaldulensis*).

3.3.1.5 Ecological Toxicity

The existing bridge contains creosoted timbers. This section describes the ecological toxicity of coal tar creosote (creosote). Additional information is included in Appendix D.

Background. Creosote is a wood preservative that has been used in the United States for almost 150 years to preserve wooden structures from attack by fungi, marine borers, and insects (Agency for Toxic Substances and Disease Registry [ATSDR], 2002; Brooks, 2004; Hutton and Samis, 2000). It is currently a registered pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act (EPA, 2008). Wood preservation accounts for over 97 percent of current creosote production (ATSDR, 2002). It is used as a wood preservative and water-proofing agent for log homes, railroad ties, telephone poles, marine pilings, and fence posts. In addition, creosote prevents animal and vegetable growth on concrete marine pilings and is a component of roofing pitch, fuel oil, and lamp black, and a lubricant for die molds (ATSDR, 2002).

Chemical formulations of creosote have varied over the production years, but it is generally reported that polycyclic aromatic hydrocarbons (PAH) and alkylated PAHs account for up to 90 percent of creosote mixtures, and most of the literature on creosote pertains to PAHs.

Creosote and its chemical constituents have various physical and chemical properties, such as solubility, partitioning, and persistence that drive their transport and fate behavior in terrestrial and aquatic environments. PAHs that are more soluble in water (LPAH) tend to partition to water, and less water-soluble PAHs (HPAH) tend to partition to sediment and particulate organic matter (Bestari et al., 1998; Hylland, 2006; Padma et al., 1999; World Health Organization [WHO], 2004). This means that LPAHs are more likely to move out of treated wood and remain free in the water than are HPAHs, and HPAHs, if they move out of the treated wood at all, are more likely to be bound up in sediment or organic matter. The greater solubility of LPAHs also means they tend to be more biologically available than HPAHs and also more toxic to plants and animals (Hylland, 2006; Padma et al., 1999). HPAHs are less bioavailable, and less toxic, but may still be accumulated by aquatic biota.

LPAHs are typically less persistent in water and sediment due to volatilization, photolysis, and biological (microbial) decomposition (Bestari et al., 1998; Eisler, 1987; Goyette and Brooks, 1998; Hylland, 2006; WHO, 2004). HPAHs can persist in sediment for long periods because they are less volatile and more chemically resistant to physical (photolysis) and biological degradation (Padma et al., 1999; WHO, 2004). Photochemical transformation of creosote seems to be the most important abiotic mechanism for transforming its components in the atmosphere, water, and soil (Poston, 2001; WHO, 2004). LPAHs are degraded more quickly by microbes in the presence of oxygen, and HPAHs degrade more slowly, particularly in anaerobic

environments; thus, as creosote in sediment ages, the low- and intermediate-weight compounds are metabolized by microbes, leaving a deposit rich in the high-molecular-weight compounds (Brooks, 1997).

Migration in Terrestrial Environments. Studies of creosote migration in terrestrial environments have focused on railroad cross ties, as treatment of these is one of the largest uses of creosote preservative in the United States and there are huge numbers of ties deployed in terrestrial environments (Bolin and Smith, 2013). Brooks (2004) studied the extent and pattern of creosote, or more specifically PAH, migration from railroad ties and what effects this would have on a simulated wetland environment. Untreated (control), newly treated, and weathered creosote-treated railroad ties were placed in a simulated wetland, and samples were taken of the ballast, wetland sediment, groundwater, stormwater, and soil cores at intervals for 18 months. There was an initial pulse of PAHs from the treated railway ties into the ballast during the first summer of the study; during this time, PAH movement from weathered ties was less than that from newly treated ties. During the second summer, small, statistically insignificant amounts of PAHs may have moved vertically down into the ballast or may have migrated from the ballast into the adjacent wetland. These results suggest that it is reasonable to expect a detectable migration of creosote-derived LPAHs from newly treated railway ties into the supporting ballast during their first exposure to hot summer weather. The rapid disappearance of these PAHs from the ballast during the fall and winter suggests they either volatilized (evaporated) or were degraded in the ballast.

In an earlier study, Brooks (2001) had concluded that, in upland environments, (1) the majority of PAHs remain within 15 to 30 centimeters of the pressure-treated wooden structure, (2) PAHs lost from new and weathered railroad ties do migrate from the wood into the ballast, (3) railroad tie-derived PAHs do not migrate out of the ballast into adjacent landscapes, (4) creosote-derived PAHs do not migrate from railroad rights-of-way in stormwater, and (5) PAH loss rates from creosote-treated wood decline exponentially with time and were less than 10 percent of the initial loss rates by the middle of the expected life of a typical project.

Chakraborty (2001) measured the loss characteristics of some creosote components (PAHs and phenolic components) in new and aged creosote-impregnated railroad ties under simulated environmental conditions of ultraviolet radiation, infrared radiation, water spray, and freezing temperatures. Leaching was found to be the major loss process (accounting for 50 to 96 percent of the losses) and, unlike vaporization and bleeding, was found to be an important mechanism in both new and old ties. Although vaporization and bleeding declined in old ties, there was substantial leaching from all the ties tested, even those that had been in service for 26 years. This leaching at age may have been facilitated by cracks that formed in these weathered ties. The PAH components lost by leaching and bleeding were found to be directly related with the amount initially present in the ties.

Migration in Aquatic Environments. Many field and laboratory experiments have been designed to quantify release of creosote-related contaminants from creosote-treated structures in aquatic environments. LPAHs are the most soluble chemical constituents in creosote, which makes them more likely to leach from creosote-treated wood into aquatic environments (Bestari et al., 1998; Padma et al., 1999; WHO, 2004). The degree of leaching is affected by salinity (greater in fresh water than in salt water), temperature (increases with increasing temperatures), flow, density of the wood, length of time since treatment of the wood (decreases with increasing age), whether leaching occurs from the end grain or the face, and the surface area-to-volume ratio. Estimates in the literature of creosote loss rates from treated wooden pilings (discussed as PAH loss) range from 273 milligram/piling/day to 403 milligrams/piling/day and are most likely good estimates of initial loss of PAHs immediately following installation of pilings in the aquatic environment (Bestari et al., 1998; Ingram et al., 1982). Studies have suggested that most leaching occurs during the first 2 to 3 years after a pile is installed, but may continue to some extent for many years (Brooks, 1997; Goyette and Brooks, 1998). PAH migration from creosote-treated wood into a flowing freshwater water column decreased sharply from initial high values and reached a steady state within 1 week, which suggests that PAH concentrations from creosote-treated wood appear to decline rapidly (to parts per trillion levels) after an initial exposure to flowing water (Kang et al., 2005). Maximum PAH concentrations in the sediments from

creosote-treated structures are predicted to occur 2 to 3 years following piling installation (Brooks, 1997; Goyette and Brooks, 1998). Various studies of weathered creosote-treated pilings have shown continued loss of chemicals from pilings, but the loss rate from older pilings is generally lower and quite variable (Goyette and Brooks, 1998; Ingram et al., 1982). Over time, creosote near the surface of the piling undergoes a "weathering" process, in which individual chemical constituents are adsorbed, evaporated, photo-oxidized, or dissolved (Sved et al., 1997). The decreased level of creosote migration or leaching from older pilings is largely thought to be due to decreased surface availability resulting from such weathering. Laboratory studies also showed that creosote and PAH concentrations in sediment decrease with increasing distance from a piling (Gagnéa et al., 1995; Goyette and Brooks, 1998; Hutton and Samis, 2000; Ingram et al., 1982).

3.3.2 Assessment Methods and Thresholds of Significance

Implementing the proposed project would significantly affect biological resources if the proposed project resulted in any of the following:

- Substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by CDFW or USFWS
- Substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
- Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS
- Substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan
- Impact from creosote pile removal
- Introduction of invasive plant species

3.3.3 Environmental Impacts

Substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by CDFW or USFWS.

Construction of the proposed project could cause adverse effects on the natural communities such as mixed riparian forest and aquatic habitat in the project area. The proposed project would result in temporary disturbance of approximately 0.25 acre of mixed riparian forest and 160 linear feet of SRA habitat in the form of pruning mature trees and removing understory vegetation. No mature tree (greater than 5 inches diameter at breast height) removals are proposed. Additionally, the active stream channel would be dewatered in the project area, and a temporary 75-linear-foot diversion of the active stream channel (that is, aquatic habitat) would be installed prior to construction. Prior to dewatering the stream channel, native fish would be captured by seining and dipnet, and relocated to suitable habitat. Once the diversion is in place, clean gravel would be placed over geotextile fabric in the dry streambed for up to 50 linear feet to provide a level work platform for construction. Permanent disturbances to mixed riparian forest, SRA habitat, and aquatic habitat are not expected from the proposed project. Lastly, approximately 0.08 acre of ruderal/developed areas would be permanently affected by bridge construction including bridge footings, approaches, and the viewing deck at the top of bank.

These temporary impacts are not considered significant because the site would be restored to pre-project conditions upon the end of construction or shortly thereafter. The temporary diversion would be removed, and the active flow channel would be restored to its natural condition at the end of construction. In addition, invasive species would be removed, and the understory would be planted and hydroseeded with fast-growing natives local to the watershed. Within the following growing season, the majority of the understory and pruned riparian canopy would be restored to pre-project conditions. Existing riparian trees and their root systems would be safeguarded during construction through the application of Standard Project Conditions, as described below. **These avoidance and restoration measures would minimize temporary disturbances to mixed riparian forest and SRA habitat, and impacts on natural communities in the project area would be less than significant.**

Standard Project Conditions

Tree and root protection measures would include the following:

- A certified arborist would monitor tree pruning and other construction-related disturbance to trees, including site preparations for construction access along the top of bank.
- If riparian vegetation is to be removed with chainsaws, saws that operate with vegetable-based bar oil would be used if available.
- Damage to any tree during construction would be reported to the City's Environmental Senior Planner, and the contractor or owner would treat the tree as specified by the City Arborist.
- No construction equipment, vehicles, or materials would be stored, parked, or left standing within the tree drip line.
- Wires, signs, and other similar items would not be attached to trees.
- Filling around the base of trees would be performed only after consultation with a certified arborist and only to the extent authorized by the arborist.
- Barricades would be constructed around the trunks of trees as specified by a certified arborist or biological monitor to prevent injury to trees and reduce susceptibility to disease-causing organisms.
- If cuts are made in the ground near the roots of trees, measures would be taken to prevent exposed soil from drying out and damaging tree roots.

In addition, other Standard Project Conditions, such as water quality BMPs, Santa Clara Valley Habitat Plan conditions pertaining to aquatic habitat, delineation of environmentally sensitive areas including tree canopies, environmental awareness training for construction workers, biological monitoring, invasive species removal, and restoration of the site to pre-project conditions as described below for special-status wildlife species, would be implemented to minimize impacts on the riparian corridor during construction. **These other Standard Project Conditions would minimize temporary disturbances to mixed riparian forest and SRA habitat, and impacts in the project area would be less than significant.**

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

Federally protected wetlands, as defined by Section 404 of the Clean Water Act, do not occur within the project area; therefore, no permanent or temporary impacts would occur as a result of construction. Approximately 0.12 acre of waters of the United States occurs within the project area. With the implementation of a temporary diversion, all construction would occur in dry conditions. No permanent impacts on aquatic resources or other waters are expected. Water quality BMPs outlined below in the Standard Project Conditions, as well as provisions set forth in USACE Nationwide Permit and RWQCB Section 401 Water Quality certification, would be included in the stormwater pollution prevention plan (SWPPP) and

would be employed to further avoid affecting aquatic resources during and after construction. **By following these measures, impacts on waters of the United States and aquatic resources would be less than significant.**

Impacts on special-status plant species.

The project area was observed to contain marginally suitable habitat for western leatherwood, Loma Prieta hoita, arcuate bush-mallow, maple-leaved checkerbloom, and robust spineflower. The reconnaissance surveys were conducted during the blooming periods for all species, and none were observed within or adjacent to the project site (CH2M HILL, 2013a). In addition, none of these species is known from past occurrences to be within or adjacent to the project site (CDFW, 2014). **Therefore, all five special-status plant species are presumed to be absent, and no further surveys are warranted. Impacts on these species would be less than significant.**

Impacts on special-status bird species.

The eight special-status bird species mentioned in Section 3.3.1.3 may occur at the project site as occasional foragers during the spring and fall migration periods. Due to the lack of suitable nesting habitat, these species are not likely to nest in the project area. Therefore, the project construction activities would not result in significant impacts. In addition, avoidance measures, including preconstruction nesting surveys, biological monitoring, and establishing construction-free buffer zones as described below in the Standard Project Conditions would be implemented during the nesting season (February through August) to protect birds that may nest within or adjacent to the project area. **Therefore, short-term impacts on special-status bird species in the area would be less than significant.**

Impacts on migratory and resident bird species.

Construction of the proposed project could cause temporary adverse effects on migratory and resident birds during the nesting season. Avoidance measures, including preconstruction nesting surveys, biological monitoring, and establishing construction-free buffer zones as described below in the Standard Project Conditions would be implemented throughout the nesting season to protect birds that may nest within or adjacent to the project area. **Therefore, short-term impacts on migratory and resident bird species in the area would be less than significant.**

Impacts on listed salmonid species.

The Central California Coast steelhead (federally listed as threatened) and Central Valley Chinook salmon (fall and late-fall run) (federal candidate for listing and California species of special concern) are known to occur in Los Gatos Creek. A variety of favorable stream conditions are found in the project area, including suitable rearing and overwintering habitat for salmonid juveniles. In addition, Los Gatos Creek is regarded as EFH for Pacific salmonids. Although the proposed project would not result in long-term negative impacts on salmonids, construction of the project could result in short-term impacts on these species and their associated EFH. In addition, impacts on water quality during construction would also affect salmonids. Standard Project Conditions listed below are included in the proposed project, including water quality BMPs, and would reduce potential impacts on salmonid species. **Therefore, short-term impacts would be less than significant.**

Moreover, the removal of piles in the streambed would be viewed as a long-term benefit to salmonids and their associated EFH because large, woody debris would naturally transport downstream, creating additional suitable habitat for steelhead and other aquatic organisms.

Impacts on western pond turtle.

The western pond turtle has not been recorded in the project reach of Los Gatos Creek, but suitable habitat for this species is present. **The Standard Project Conditions listed below would be implemented to reduce impacts on western pond turtle; therefore, short-term impacts on this species would be less than significant.**

Impacts on common wildlife.

Wildlife currently using the Los Gatos Creek corridor in and around the project area are likely tolerant to visual and acoustic disturbance typically associated with freeway traffic along I-280, roadways such as Coe Avenue, and surrounding industrial and residential development. The visual and acoustic disturbance to wildlife associated with the proposed trail use is not expected to occur at significantly greater levels than what currently exists, and wildlife along the channel is expected to habituate to new levels of disturbance. **Therefore, the proposed short- and long-term impacts on wildlife would be less than significant.**

Substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

The project would have short-term disturbance to riparian and aquatic habitats used by local wildlife species during construction, but the temporary creek diversion would allow for continued fish movement through the project area during construction. As described below, Standard Project Conditions would include BMPs that would be implemented before and during construction to avoid impacts on aquatic habitat and water quality. As a result, the proposed project would not substantially interfere with the movement of native resident or migratory fish, wildlife species, or native resident or migratory wildlife corridors. Additionally, due to the lack of wildlife nursery sites within the project area, the proposed project would not impede the use of native wildlife nursery. Changes in vegetation due to the removal of herbaceous species would not present significant barriers to movement of fish or wildlife. **Therefore, the proposed short- and long-term impacts on migratory corridors would be less than significant.**

Standard Project Conditions

The proposed project would include the following Standard Project Conditions:

- Construction activities would be limited to the smallest area possible to complete the proposed work.
- Environmentally sensitive areas fencing would be installed at limits of work to prevent construction equipment and crews from disturbing the riparian zone beyond the limits of work.
- To minimize impacts on salmonids, construction within the channel would be restricted to the dry season (June 15 to October 15), the period after the spawning and smolt migration seasons when minimal water is in the channel and movement of salmonids within the project area is expected to be minimal.
- An educational program would be provided by a qualified biologist for all construction staff prior to their beginning work at the site. The purpose of these training sessions would be to familiarize construction personnel with the special-status species that could potentially enter the work area and the procedures they are to follow if these species are encountered. Educational material would include the life history of special-status fish species, their visual method of feeding and physiology of obtaining oxygen, and the importance of minimizing turbidity and sedimentation downstream of the project area and preventing creosote contamination.
- A temporary diversion would be in place during construction to maintain hydrologic conditions in the creek and a dry work area within the footprints of the trestle/freespan bridge with sufficient work area on either side of structures to be dismantled/constructed. The temporary diversion would be installed with upstream and downstream cofferdams and a culvert(s) or pipe(s) running between them during the dry season (June 15 to October 15) to divert creek flow into the culvert(s) or pipe(s) (sized to allow fish passage and to pass expected baseflow fluctuations due to variable upstream summer releases and early fall stormflow) while keeping dry conditions in the work area.
- It is possible that juvenile salmonids could be moving downstream during the dry season. Therefore, measures would be taken to make certain individuals are not harmed and the movement of salmonids is

not impeded by the water diversion used during construction. A qualified fisheries biologist would be present prior to and during the installation of the temporary diversion to safely relocate any fish from the work area to suitable habitat in the live stream channel using seines and dipnets. A qualified fishery biologist would also be present when the cofferdams and culvert(s) are removed and the project site is rewatered.

- A rock-lined well would be dug between the cofferdams and a sump pump installed. This pump would pump water out of the work area to an offstream filtering basin to maintain dry conditions within the work area during working hours and to minimize turbid return flow to the active stream channel. The well would be covered to prevent creosote contamination during dismantling of pilings.
- Any pumps used to divert live stream flow, outside the dewatered work area, would be screened and maintained throughout the construction period to comply with the National Marine Fisheries Service Fish Screening Criteria for Anadromous Salmonids.
- All gear used by construction staff, such as waders, would be clean and free of mud and dirt potentially brought in from other aquatic sites.
- If riparian vegetation is to be removed with chainsaws, saws that operate with vegetable-based bar oil would be used if available.
- All heavy equipment brought onto the site would be clean and free of mud deposits from other sites.
- When possible, a vegetated buffer strip would be maintained between staging and excavation areas and receiving waters.
- When not within the construction footprint, deep pools within stream reaches shall be maintained as refuge for fish and wildlife by constructing temporary fencing or barrier to avoid pool destruction and prevent access.
- Preconstruction nesting surveys would be conducted before undertaking work during the nesting season (February through August). Any nest found within 50 feet for songbirds and 300 feet for raptors would be avoided, and a designated construction-free buffer zone would be established until the nests are no longer active.
- Preconstruction surveys for western pond turtle would be conducted 24 to 48 hours before the start of work, and any western pond turtle found would be safely relocated to keep the work area clear of any special-status reptiles.
- Biological monitoring of work activities, including the installation of the temporary diversion structure and setting of buffers for bird nests found during the nesting season, would be conducted by a qualified biologist for the entire construction period.
- All construction equipment shall be free of any plant material or seeds from prior projects to avoid the spread of invasive noxious weeds.
- Areas subject to noxious weed removal or disturbance would be removed and disposed of in a manner that would not promote the spread of the species. The area would be replanted with fast-growing native plants or a native erosion control seed mixture appropriate for the area. If seeding is not possible, then the area should be covered to the extent practicable with heavy black plastic solarization material until completion of the proposed project.
- Water quality would be protected through adherence to BMPs and preventive measures outlined in the SWPPP. BMPs, including but not limited to, the following measures would be implemented during construction to protect aquatic and riparian resources:
  - Minimize vegetation removal.
  - Install fiber rolls, silt fencing, or gravel bag berms for sediment control.

- Stabilize construction entrance and exits to control sediment tracking.
- Provide plastic covering (such as Visqueen) for soil or debris stockpiles during construction.
- Position stationary equipment, such as motors, pumps, generators, compressors, and welders, located within or adjacent to the stream over drip pans.
- Check and maintain any equipment or vehicles driven and operated within or adjacent to the stream daily to prevent leaks of materials that, if introduced to water, could be deleterious to aquatic life.
- Divert concentrated runoff away from the channel banks.
- Locate staging and storage areas for equipment, materials, fuels, lubricants, and solvents outside of the stream channel and banks.
- Follow waste management guidelines and storage limitations for fuels and lubricants.
- Water all active construction areas where soil is exposed to control dust frequency, depending on type of operation and wind exposure.
- Designate a person or persons to oversee the implementation of a comprehensive dust control program and to increase watering, as necessary.
- Stabilize disturbed soils with hydroseed or other appropriate erosion control BMP.
- Monitor the effectiveness of the erosion control measures during the first year's rainy season and implement remedial measures (for example, reseeding, repair of silt fencing) if sedimentation or erosion is noted.

Implementation of these Standard Project Conditions would minimize temporary adverse impacts on special-status species in the project area; therefore, impacts on special-status species would be less than significant.

Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

The proposed project has been designed to be consistent with the provisions of the Santa Clara Valley Habitat Plan, adopted by the City of San José in January 2013. Specifically, project design features, construction methods, and the mitigation measures listed in this section are consistent with the following Santa Clara Valley Habitat Plan conditions (County of Santa Clara et al., 2012):

- Condition 1: Avoid Direct Impacts on Protected Plant and Wildlife Species
- Condition 3: Maintain Hydrologic Conditions
- Condition 4: Avoidance and Minimization for In-Stream Projects
- Condition 6: Transportation Projects
- Conditions 15-18: Wildlife Surveys and Avoidance
- Table 6-2 requirements for avoidance and minimization of aquatic habitat

With the Standard Project Conditions, mitigation measures, Santa Clara Valley Habitat Plan conditions, and fee payment, the proposed project would have no significant impact on the Santa Clara Valley Habitat Plan. **Therefore, implementation of the proposed project would not conflict with the Santa Clara Valley Habitat Plan, and impacts would be less than significant.**

Impact BIO-1: *Impacts from creosote pile removal.*

Removal of creosote piles during construction could cause adverse effects on biological resources temporarily, including special-status fish species. The toxicity of creosote and PAHs to terrestrial wildlife (such as, birds and mammals) and humans has been studied extensively in the laboratory and in the field (ATSDR, 2002; WHO, 2004). Sixteen of the seventeen PAHs most commonly found in creosote are listed

under the Clean Water Act as priority pollutants and can be mutagenic or teratogenic to mammals, including humans. Some PAHs found in creosote have been identified as probable human (B2) carcinogens by EPA, and all of the B2 PAHs are within the high-molecular-weight category (ATSDR, 2002; Stratus Consulting, 2006). Over time, creosote near the surface of the piling undergoes a "weathering" process, in which individual chemical constituents are adsorbed, evaporated, photo-oxidized, or dissolved (Sved et al., 1997). As noted previously, weathering of creosote-treated wooden structures results in decreased surface availability of creosote and creosote constituents. Thus, absent damage that could facilitate a release, terrestrial receptors, including humans, are unlikely to be exposed to, or affected by, those PAHs (specifically the HPAHs) bound up in older treated wood. Thus, studies of creosote in terrestrial environments have focused on those PAHs that can escape from railroad cross ties and on the effect those releases may have on adjacent wetland or aquatic environments. As noted above, Brooks (2004) examined creosote leaching from railroad ties in wetland areas, with an examination of both PAHs migrating to the railroad bed ballast and into the wetland. After 18 months, PAH concentrations in the wetland had increased by only an average of 0.3 milligrams per kilogram, which was not a statistically significant increase. Brooks (2004) concluded that PAH concentrations observed in the highest wetland sediment samples associated with either newly treated or weathered ties were not stressful to benthic aquatic life (according to the consensus sediment benchmark methodology of Swartz [1999]). Similarly, Chakraborty (2001) used a fugacity-based mass balance model to predict that two PAHs (phenanthrene and fluoranthene) were released from ties at levels well below those toxic to fish.

Aquatic biota that live in or on sediment or in the water column can be exposed to PAHs (primarily LAPHs) and other creosote constituents that leach out of treated structures. Invertebrates in the water column take up PAHs by diffusion across their integument and through their diet (Meador et al., 1999). Benthic organisms take up PAHs by diffusion from the water column or sediment porewater, through their diet, or by diffusion from the sediment across their integument. Benthic and pelagic fish share similar PAH uptake routes with invertebrates, but fish can also take up contaminants via exchange across their gills (Meador et al., 1999). Various studies in the literature have shown that fish can metabolize PAHs to more soluble forms that can subsequently be excreted. Research has also shown that invertebrate metabolic mechanisms are more variable and that invertebrates are, generally, less able to metabolize, and thus more likely to accumulate, the more fat soluble HPAHs (Eisler, 1987; Meador et al., 1995). For example, benzo[a]pyrene, a HPAH and probable human carcinogen, has concentrations in creosote ranging from < 0.05-0.2 percent by weight (WHO, 2004) but has been found to bioaccumulate (3.4 percent of total PAHs) in bivalves transplanted in San Francisco Bay (Greenfield and Davis, 2005).

Considerable literature is available on the potential effects (including toxicity and bioaccumulation) of creosote constituents on organisms at various levels of aquatic food webs, primarily benthic invertebrates and fish (Stratus Consulting, 2006; Werme et al., 2010). Overall, these laboratory and field studies indicate that treated wooden structures can leach PAHs and other toxic compounds into the aquatic environment. However, in well-circulated water bodies, concentrations of the more soluble and toxic LPAHs have not been shown to reach levels capable of causing adverse effects in pelagic aquatic biota. In addition, the degree of PAH accumulation to sediment associated with these structures appears to be relatively minor in many settings, particularly in well-circulated waters and over time. PAH accumulation in sediment also appears to be relatively limited spatially (within approximately 10 meters of the structure) and has not generally been associated with measured, significant, biological effects except in proximity to the structures. The duration of any biological effects also appears to become attenuated within several months of construction (the period when leaching rates are likely to be highest) (Stratus Consulting, 2006). An important caveat are field studies that have indicated that PAHs can accumulate in aquatic invertebrates to potentially deleterious concentrations in poorly circulated water bodies or when the density of treated wooden structures is high relative to the overall surface area of the water body (Stratus Consulting, 2006).

Studies in both terrestrial (for example, railroad ties) and aquatic (for example, pier pilings) environments have shown significant decreases in creosote and PAH releases from treated wooden structures within 5 years or less of placement. The pilings comprising the Three Creeks bridge are, for the most part, not new (the bridge itself was built in 1921) and are likely well past the point where meaningful quantities of creosote constituents (particularly the more soluble and toxic LPAHs) are leaching into the environment – either to the creek or to its terrestrial, riparian margins. Vines-Vines et al. (2000) did find that creosote-treated wood extracts from 50-year-old San Francisco Bay pilings were the source of PAHs to the surrounding water, but PAH availability from these older pilings may have been due to splintering of the piling which facilitated the release of otherwise sequestered creosote. Also, a study in Australia found that significant amounts of PAHs were released during a pile-removal project, and that significantly elevated concentrations of PAHs remained in the sediments up to 6 months after removal was completed (Smith, 2008). Pile removal projects must deploy BMPs to avoid or mitigate the possibility of temporarily increasing PAH levels in soils or sediment as a consequence of the physical disturbance of pilings.

Therefore, by implementing these precautionary mitigation measures, impacts from creosote piling removal would be less than significant.

Introduction of invasive plant species.

Construction equipment has the potential to introduce and spread new or existing invasive plant species into the Los Gatos Creek riparian corridor during project implementation. This could be a potentially significant impact. In accordance with the Standard Project Conditions listed above for special-status species, the contractor would be required to inspect all construction equipment for plant material and seeds prior to construction, remove and dispose of all invasive plants in the project footprint cautiously, and replant the site with fast-growing natives. **By adhering to these conditions, impacts from invasive species would be less than significant.**

3.3.4 Mitigation Measures

Based on the analysis above, most project impacts would be less than significant, or would be reduced to a less than significant level with the implementation of Standard Project Conditions. For Impact BIO-1, additional mitigation measures are required as follows.

MM BIO-1: To minimize impacts from removing creosote piles during bridge demolition, the following mitigation measures would be implemented:

a. Vibratory extraction is the preferred method of pile removal.

b. The crane operator shall be trained to remove pile slowly. This would minimize sediment disturbance.

c. The operator is to “wake up” pile to break the bond with sediment. Bond breaking avoids pulling out a large block of soil, possibly breaking off the pile in the process.

d. A major creosote release to the environment may occur if equipment (bucket, steel cable, vibratory hammer) pinches the creosoted piling below the water line. Therefore, the extraction equipment and pile removal process shall be kept and implemented in dry conditions.

e. Piling must not be broken off intentionally by twisting, bending, or other deformation. This practice has the potential for releasing creosote to the water column.

f. Upon removal from substrate, the pile shall be moved expeditiously from the creek into the containment basin. The pile shall not be shaken, hosed off, stripped or scraped off, left hanging to drip, or any other action intended to clean or remove adhering material from the pile.

g. Every attempt should be made to completely remove the piling in its entirety before cutting. If the entire pile cannot be removed or it is accidentally broken off during removal, the piling should be cut off at least 2 feet below the mudline. A chain should be used, if practical, to attempt to entirely remove the broken pile.

h. Removed piles shall be placed in a containment facility. This should be done immediately after the pile is initially removed. The basin may be made of hay bales and durable plastic sheeting.

i. Sediments spilled on work surfaces shall be contained and disposed of with the pile debris at a permitted upland disposal site.

These mitigation measures would minimize adverse impacts on aquatic resources and special-status fish species to below the level of significance from potential PAH exposure during the creosote piling removal process.

3.4 Cultural Resources

This section describes the existing cultural resources within the study area, and evaluates potential impacts that may occur on cultural resources relevant to the proposed project.

3.4.1 Environmental Setting

3.4.1.1 Archaeological Resources

An archaeological assessment report was prepared to determine if archaeological resources might be affected by the proposed project (see Appendix E). The report includes an updated records search conducted by the California Historical Resources Information System, Northwest Information Center (CHRIS/NWIC); a literature and archival review of materials available; information provided from consulting with the Native American Heritage Commission; results of a pedestrian field inspection of the project area; and recommendation measures.

3.4.1.2 Historical Resources

A historical evaluation of the proposed project was prepared to evaluate the Los Gatos Creek Trestle as a historical resource (see Appendix F). The report describes the current status of the trestle, provides regulatory context, presents historical context of the structure of the trestle, and summarizes the history of San José and Willow Glen in relation to the railroad and canning industry. The report uses this background information to determine whether the trestle meets the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), or for designation as a City of San José historic landmark. The eligibility criteria are as follows.

National Register of Historic Places Eligibility Criteria. The eligibility criteria for the National Register of Historic Places are quoted in full below.

> The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:
>
> **A.** That are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> **B.** That are associated with the lives of significant persons in or past; or
>
> **C.** That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> **D.** That have yielded or may be likely to yield, information important in history or prehistory.

Criteria Considerations. Ordinarily, cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the NRHP.

However, such properties would *qualify* if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- A building or structure removed from its original location but which is primarily significant for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building associated with his or her productive life; or
- A cemetery that derives its primary importance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
- A property achieving significance within the past 50 years if it is of exceptional importance.

California Register of Historical Resources Eligibility Criteria. The criteria for the CRHC are quoted in full below.

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

City of San José Historic Landmark Designation Eligibility Criteria. The City of San José has a landmark ordinance that enables the City to designate properties as historic landmarks (San José Municipal Code, Chapter 13.48, Historic Preservation). The City's Historic Landmarks Commission is responsible for making a finding that a proposed landmark has special historical, architectural, cultural, aesthetic, or engineering interest or value of a historical nature, and that its designation as a landmark conforms with the goals and policies of the General Plan. In making its findings, the City's Historic Landmarks Commission considers the following factors regarding a proposed landmark.

- Its character, interest, or value as part of the local, regional, state, or national history, heritage, or culture.
- Its location as a site of a significant historic event.
- Its identification with a person or persons who significantly contributed to the local, regional, state, or national culture and history.
- Its exemplification of the cultural, economic, social, or historic heritage of San José.
- Its portrayal of the environment of a group of people in an era of history characterized by a distinctive architectural style.

- Its embodiment of distinguishing characteristics of an architectural type or specimen.
- Its identification as the work of an architect or master builder whose individual work has influenced the development of San José.
- Its embodiment of elements of architectural or engineering design, detail, materials, or craftsmanship that represent a significant architectural innovation or that is unique.

3.4.2 Assessment Methods and Thresholds of Significance

The assessment focused on determining eligibility under federal, state, and local criteria. Standard evaluation methods were used for both archaeological and historical resources. The following focus areas were used to evaluate the historical character of the trestle: the rarity of the trestle and its relationship to the canning industry, the grade separation movement, Willow Glen history, and Western Pacific Railroad history. Implementing the proposed project would significantly affect cultural resources if the proposed project resulted in any of the following:

- Substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines.
- Disturbance of any human remains, including those interred outside of formal cemeteries.
- Substantial adverse change in the significance of a known historical resource as defined in Section 15064.5.

3.4.3 Environmental Impacts

Impact CUL-1: *Substantial adverse changes in the significance of archaeological resources.*

Results from archeological field inventories, archival research, and record searches prepared for the project area did not identify any prehistoric, Hispanic, or significant American Period resources within the area (Basin Research Associates, 2014). Two site record and literature searches were conducted by the CHRIS/NWIC for the project alignment. Both included a review of lists of various state and federal historically or architecturally significant structures, landmarks, or points of interest in and adjacent to the project site. Two archaeological field inventories were also completed for the Three Creeks Trail alignment and were included in this assessment; one was completed on September 26, 2013, and the other on October 31, 2014, by a professional archaeologist who met the Standards of the Secretary of the Interior. Both inventories observed no evidence of prehistoric or historically significant archaeological resources.

Although the assessment report concluded that no prehistoric or historic era archaeological sites or resources have been recorded at or near the project site, previously unknown archaeological resources could be exposed during ground-disturbing construction operations. These operations include utility, and drainage improvements, and other types of development. Construction operations in areas of native soil could also result in inadvertently exposing buried prehistoric or historic archaeological materials that could be eligible for listing on the CRHR or meet the definition of a unique archeological resource as defined in Public Resource Code section 21083.2. **Changes to archaeological resources within the project area would be considered significant, but would be less than significant with implementation of MM CUL-1.**

Disturbance of human remains.

The proposed project has minor potential to disturb any human remains, including those interred outside of formal cemeteries. A records search under the Native American Heritage Commission Sacred Lands Inventory was unable to indicate the presence of Native American resources in the project area (Basin Research Associates, 2014); other record searches, archival research, and field inventory were also unable to identify any prehistoric, Hispanic, or significant American Period resources within the project area. It is possible the proposed project could expose previously unknown Native American human remains during ground-disturbing construction activities. **Disturbance of human remains within the project area would be**

considered significant, but would be less than significant with implementation of the following Standard Project Conditions.

Standard Project Conditions

The proposed project would include the following Standard Project Conditions for the treatment of human remains and associated or unassociated funerary objects exposed during construction:

- Pursuant to State Health and Safety Code section 7050.5(e) and Public Resources Code section 5097.98, if human bone or bone of unknown origin is found at any time during on- or offsite construction, all work shall stop near the find and the County of Santa Clara Medical Examiner-Coroner shall be notified immediately. If the remains are determined to be Native American, the Medical Examiner-Coroner shall notify the California State Native American Heritage Commission, who shall identify the person believed to be the most likely descendant. The archaeologist, project proponent, and most likely descendant shall make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (CEQA Guidelines Section 15064.5(d)). The agreed upon treatment plan shall address the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. California Public Resources Code allows 48 hours to reach agreement on a treatment plan. If the most likely descendant and the other parties do not agree on the reburial method, the proposed project would follow Public Resources Code section 5097.98(b) which states that ". . . the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance."
- The treatment plan shall be implemented and any findings shall be submitted by the archaeologist in a professional report submitted to the project applicant, the County of Santa Clara Medical Examiner-Coroner, the City of San José, and the CHRIS/NWIC.

Substantial adverse changes in the significance of a known historical resource

The proposed project does not have the potential to cause a substantial adverse change in the significance of historical resources. The historical evaluation report (see Appendix F) concluded the trestle does not satisfy the criteria required to be listed for the NRHP and CRHR. The trestle does not appear to be associated with the history of the Western Pacific Railroad in any important way. The trestle, like other trestles and bridges along the San José Branch, helped the branch to operate, but only as part of a coordinated transportation network. There is little reason to conclude that this structure's contribution to the Western Pacific Railroad is significant under National Register Criterion A.

This trestle does not appear to be significantly associated with the Santa Clara County fruit packing industry. This trestle is only tangentially related to that industry and does not meet the guidelines for how Criterion A of the National Register should be applied. It is one piece of dozens of transportation networks that served that industry. The association of the trestle with that industry is so secondary that it does not appear to meet the National Register Criterion A guidelines.

The trestle does not appear to be significantly associated with the incorporation of Willow Glen in any important way. It is the proposed realignment of the Southern Pacific's 4th Street track, not the building of the Western Pacific line, which precipitated the incorporation of Willow Glen. In addition, the incorporation movement was not only about stopping the railroad; but it resulted in the creation of a small city that was self-governing for 9 years. A resource that is importantly associated with this early history of Willow Glen should take into account that the city actually governed the neighborhood for 9 years, such as maintaining streets, arranging for police services, and handling garbage. The association of this 1922 timber trestle with the 1927 through 1936 period of self-government is distant at best.

The trestle not representative of the grade separation problem, in that it carried a railroad over a waterway and is not directly associated with either the problem or the solution. The solution to a grade crossing problem ordinarily involves a highway bridge or a highway underpass rather than a railroad bridge, because it is usually more cost effective to raise or sink a highway than to raise or sink a railroad. Other railroad crossings in the San José area are directly associated with the grade separation movement, for example, in the area surrounding Diridon Station. The Los Gatos Creek Trestle is not associated with the grade separation movement, and it does not qualify for listing based on its potential association with this historic theme.

There is no indication that the Los Gatos Creek Trestle is associated with a person important to our history; therefore, the trestle does not meet either National Register Criterion B or California Register Criterion 2.

The trestle does not represent a specimen of its type or period of construction that is an important example of building practices of a particular time in history. The bridge type is an open-deck, pile-supported, timber trestle. The trestle is somewhat unusual in that there are different numbers of piles in different bents; but, in general, it is a standard six-pile bent. The trestle is typical in that it was originally constructed in a manner called forth in all historic as well as contemporary analyses of the timber trestle structural type, but it has been repaired and maintained in ways that have detracted from its ability to convey the typical appearance of such a structure. On balance, there is no evidence to suggest that the trestle achieved the kind of distinction needed to represent a significant example of a common property type. It does not appear to be significant under National Register Criterion C or California Register Criterion 3.

The logic that finds the Los Gatos Creek Trestle not eligible for the National Register or California Register strongly suggests that the trestle is also not eligible for designation under the City's historic landmarks program. **For these reasons, the Los Gatos Creek Trestle is not a historical resource; and therefore, there would be no impact.**

3.4.4 Mitigation Measures

Based on the above analysis, most project impacts would be reduced to a less than significant level with mitigation or the implementation of Standard Project Conditions. For Impact CUL-1, additional mitigation is required, as follows.

MM CUL-1: To minimize potential impacts on unknown prehistoric and historic era archaeological sites and resources, the following measures would be implemented:

- The project proponent shall note on any plans that require ground-disturbing excavation that there is a potential for exposing buried cultural resources.
- The project proponent shall retain a professional archaeologist to provide a preconstruction briefing to supervisory personnel of any excavation contractor to alert them to the possibility of exposing significant prehistoric archaeological resources within the project area. The briefing shall discuss any archaeological objects that could be exposed, the need to stop excavation at the discovery, and the procedures to follow regarding discovery protection and notification of the project proponent and archaeological team.
- The project proponent shall retain a professional archaeologist on an "on-call" basis during ground-disturbing construction for the project to review, identify, and evaluate cultural resources that may be inadvertently exposed during construction. Should previously unidentified cultural resources be discovered during construction of the proposed project, the project proponent shall cease work within 50 feet of the resources and notify the City of San José immediately. The archaeologist shall review and evaluate any discoveries to determine if they are historical resource(s) or unique archaeological resources under CEQA.

- If the professional archaeologist determines that any cultural resources exposed during construction constitute a historical resource or unique archaeological resource, he or she shall notify the project proponent and other appropriate parties of the evaluation and recommended mitigation measures to mitigate to a less than significant impact. Mitigation measures may include avoidance, preservation in place, recordation, additional archaeological testing, and data recovery, among other options. Treatment of any significant cultural resources shall be undertaken with the approval of the City of San José. The archaeologist shall document the resources using California Department of Parks and Recreation 523 forms and file those forms with the CHRIS/NWIC. The archaeologist shall be required to submit to the City of San José for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery shall not be allowed until the preceding steps have been taken.

Implementation of this mitigation measure would reduce impacts on archaeological resources to less than significant. This measure requires a professional archaeologist to review, identify, evaluate, and treat any significant findings at the time of discovery.

3.5 Energy

This section was prepared pursuant to CEQA Guidelines Section 15126(c) and Appendix F (Energy Conservation of the Guidelines), which require that EIRs include a discussion of the potential energy impacts of proposed projects with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. The information in this section is based largely on data and reports produced by the California Energy Commission (CEC) and the Energy Information Administration of the U.S. Department of Energy.

3.5.1 Environmental Setting

Energy consumption is analyzed in an EIR because of the environmental impacts associated with its production and usage. Such impacts include the depletion of nonrenewable resources (such as, oil, natural gas, and coal) and emissions of pollutants during both the production and consumption phases. The City's *Envision San José 2040 General Plan* (General Plan) Sustainable City Strategy and green building policies have objectives and goals regarding energy efficiency and the use of renewable energy technologies. In addition, the City's Green Vision promotes energy conservation.

The majority of the City's energy sustainability plans identify strategies for long-term sustainable living within the city limits. The proposed project would not result in a new source of energy consumption; therefore, the City's strategies for energy efficiency would not necessarily be applicable to project operations. Therefore, this section focuses on the consumption of fossil fuels relative to construction equipment.

3.5.1.1 Fuel for Motor Vehicles

Transportation fuels, including gasoline and diesel fuels, are produced by refining crude oil. The CEC estimated that approximately 40 percent of all energy consumed within the state can be attributed to the movement of people and goods by vehicle, rail, airplanes, and other transportation modes (CEC, 2013), with petroleum accounting for approximately 92 percent of the energy source for transportation in California (CEC, 2013). It is estimated that Californians consume approximately 18 billion gallons of gasoline (CEC, 2013). Additionally, California's diesel consumption totaled approximately 3.3 billion gallons in 2012 for onroad vehicles and another 500 million for offroad farm and construction vehicles. Diesel fuel is used in 70 percent of California's 1 million trucks and buses, and biodiesel is blended at multiple terminals (CEC, 2013). However, recent growth in alternative fuel, vehicle, and infrastructure sectors, including recent trend analysis showing a steady decline in gasoline consumption, indicates that California's fuel and vehicle markets are beginning the shift toward alternative and renewable fuels and advanced vehicle technologies.

Sixteen of California's 21 refineries make California's gasoline (CEC, 2014a). Approximately 39 percent of crude oil used in California is produced in-state; the remaining 61 percent comes from Alaska (16 percent) and foreign sources (45 percent). Foreign imports are primarily from Saudi Arabia, Ecuador, and Iraq. Fuel demand in the state is anticipated to increase due to population growth, lack of mass transit, and the number of sports utility vehicles on the roadways (CEC, 2014b).

3.5.2 Assessment Methods and Thresholds of Significance

An energy impact would be considered significant if the proposed project resulted in any of the following:

- Use fuel or energy in a wasteful manner
- Result in a substantial increase in demand upon energy resources in relation to projected supplies

3.5.3 Environmental Impacts

Would the project use fuel or energy in a wasteful manner?

During the construction phase, construction vehicles, including worker commuter vehicles and heavy construction equipment, would require the use of gasoline and diesel fuel for power. In addition, the steel bridge would be fabricated offsite and transported to the project site for assembly.[4] As described in Section 2.2, construction of the proposed project is anticipated to last approximately 7 months, including the delivery of the bridge structure, and would not create a wasteful or significant increase in demand for fuel supplies. Once constructed, a negligible amount of energy would be used as fuel for maintenance vehicles and equipment but would not cause a significant increase in energy consumption; **therefore, impacts on fuel use or energy would be less than significant**.

3.5.4 Mitigation Measures

Impacts on energy would be less than significant; therefore, no mitigation measures are required.

3.6 Geology and Soils

This section describes the geological features within the study area and assesses the impacts of the proposed project.

3.6.1 Environmental Setting

The proposed project is located in Willow Glen, in a relatively flat portion of the Santa Clara Valley, part of the Coast Ranges Geologic Province of California (Page, 1966). The project vicinity is underlain by alluvial fan deposits that slope gradually down to San Francisco Bay to the north. The alluvial fan deposits generally consist of fine-grained sand, silt, and clay (Dibblee and Minch, 2007), and medium dense to dense gravelly sand or sandy gravel (Helley et al., 1994). The ground elevation on either side of the proposed bridge is approximately 120 feet.

A geotechnical investigation was conducted for the proposed bridge (Parikh Consultants, Inc., 2013). The geotechnical report described the subsurface conditions as consisting of medium dense to very dense sand with gravel, and soft to stiff lean clay. Artificial fill was also observed for the upper 25 feet beneath the ground surface on the north abutment.

The project site is in a California Seismic Hazard Zone for Liquefaction, or where local geological, geotechnical, and groundwater conditions indicate a potential for liquefaction to occur (California Division of Mines and Geology, 2002). The project vicinity has been categorized as having a 0 to 5 percent probability of liquefaction occurring from maximum earthquake magnitudes on the San Andreas, Hayward, and Calaveras faults (Holzer et al, 2008). According to the site-specific geotechnical investigation, the sand materials are dense within the depths explored and do not have a significant risk of liquefaction. One soil sample

[4] Based on discussions with the bridge manufacturer, the bridge is expected to be delivered for onsite assembly using five semi trucks traveling from Greeley, Colorado.

registered as susceptible to liquefaction as indicated by sampler penetration blow counts; but this sample was partially clay, and the analysis method is valid for sand only. Pleistocene deposits are located below a depth of approximately 70 feet beneath the existing ground surface, which are generally resistant to liquefaction (Helley, 1990).

The site is outside of any Alquist-Priolo Earthquake Fault Zones. The nearest active faults, or faults with evidence of rupture within Holocene time (last 11,000 years), are the faults within the Hayward Fault Zone, approximately 6 miles east of the proposed project.

Based on plasticity testing conducted during the geotechnical investigation, the subsurface clay materials may have a low to medium expansion potential. These clay materials are located at a depth of at least 17 feet beneath the existing ground surface.

3.6.2 Assessment Methods and Thresholds of Significance

To assess the potential impacts of the proposed project on geology and soils within the area of analysis, the existing setting was qualitatively compared to the description of construction- and project-related activities, along with incorporated Standard Project Conditions (see Section 3.3, Biological Resources). A project components review included extent of earthworks and excavations and disturbance area for construction.

Implementing the proposed project would significantly affect geology and soils if the proposed project resulted in any of the following:

- Rupture of a known earthquake fault[5] that would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death
- Strong seismic ground shaking that would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death
- Seismic-related ground failure, including liquefaction that would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death
- Landslides that would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death
- Substantial soil erosion or the loss of topsoil
- Potential on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse because of the proposed project being located on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed project
- Potential substantial risks to life or property because of the proposed project being located on expansive soils

3.6.3 Environmental Impacts

Cause soil erosion or the loss of topsoil.

Ground disturbances from construction activities may cause erosion due to exposure of unprotected soils to precipitation and stream currents. As stated in Section 3.3, Biological Resources, Standard Project Conditions would be followed to reduce the potential for soil erosion caused by construction activities. For example, erosion risk would be minimized by implementing BMPs and preventive measures as outlined in the SWPPP. A Notice of Intent would be prepared and submitted with the SWPPP to the San Francisco Bay RWQCB in accordance with the General Permit for Stormwater Discharges Associated with Construction Activity (see

[5] As delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42.

Section 3.3, Biological Resources). **Therefore, erosion in Los Gatos Creek and surrounding areas would be less than significant.**

Subject the proposed project to strong seismic ground shaking, resulting in ground failure.

It is expected that the project site would be subject to significant seismic events over the life of the proposed project. The subsurface soil is medium dense to dense and has a low risk of ground failure. The proposed new bridge would be engineered to withstand the anticipated seismic loading in accordance with the latest building codes and transportation standards to avoid or minimize potential damage from seismic shaking, fault rupture, and liquefaction on the site; **therefore, the impact would be less than significant**.

Subject the proposed project to landslides due to liquefaction or slope instability and expansive soil.

The topographic relief in the project vicinity is relatively flat. Creek banks are subject to potential localized slope failure, but the proposed project does not change the risk of landslides. The new bridge abutments are likely to reduce the risk of creek bank slope failure as they would be designed in conformance with the latest building codes.

Geologic conditions would not be affected by the proposed project. The proposed project would not be located on a geologic unit or soils that are unstable or that would become unstable as a result of the proposed project, potentially resulting in an on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse.

Clay soil with a low to medium expansive potential is present beneath the proposed project, but was only observed in the project geotechnical investigation at a depth below the zone of moisture fluctuation. Expansion or contraction of the clay is unlikely to occur for the proposed project**. The impact would be less than significant.**

3.6.4 Mitigation Measures

Impacts on geology and soils would be less than significant; therefore, no mitigation measures are required.

3.7 Greenhouse Gases

GHGs include both naturally occurring and anthropogenic gases, such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydro-chlorofluorocarbons, perfluorocarbons, and sulfur hexafluoride. GHGs absorb infrared radiation, trap the energy from the sun, and help maintain the temperature of Earth's surface, creating a process known as the greenhouse effect. The accumulation of GHGs in the atmosphere influences the long-term range of average atmospheric temperatures. Scientific evidence indicates a trend of increasing global temperature over the past century due to an increase in GHG emissions from human activities. The climate change associated with this global warming is predicted to produce economic and social consequences across the globe. This section describes the regulatory background and existing conditions of GHG emissions and assesses the impacts of the proposed project.

3.7.1 State Regulations

With the passage of several pieces of legislation including State Senate and Assembly Bills and Executive Orders (EO), California launched an innovative and proactive approach to dealing with GHG emissions and climate:

- AB 1493, Pavley, Vehicular Emissions: Greenhouse Gases, 2002: This bill requires ARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year.
- EO S-3-05 (June 1, 2005): The goal of this EO is to reduce California's GHG emissions to (1) year 2000 levels by 2010, (2) year 1990 levels by the 2020, and (3) 80 percent below year 1990 levels by 2050. In 2006, this goal was further reinforced with the passage of AB 32.

- AB 32, Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 sets the same overall GHG emissions reduction goals as outlined in EO S-3-05, while further mandating that ARB create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases."
- EO S-20-06 (October 18, 2006): This order establishes the responsibilities and roles of the Secretary of the California Environmental Protection Agency and state agencies with regard to climate change.
- EO S-01-07 (January 18, 2007): This order set forth the low carbon fuel standard for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.
- SB 97, Chapter 185, 2007, Greenhouse Gas Emissions: SB 97 required the Governor's Office of Planning and Research to develop recommended amendments to CEQA Guidelines for addressing GHG emissions. The amendments became effective March 18, 2010.
- SB 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires ARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization for each region must then develop a Sustainable Communities Strategy that integrates transportation, land use, and housing policies to plan for the achievement of the emissions target for their region.
- SB 391 Chapter 585, 2009 California Transportation Plan: This bill requires the state's long-range transportation plan to meet California's climate change goals under AB 32.

3.7.2 Federal Regulations

Climate change and its associated effects are being addressed through various efforts at the federal level to improve fuel economy and energy efficiency, such as the National Clean Car Program and EO 13514 – Federal Leadership in Environmental, Energy and Economic Performance. EO 13514 was signed on October 5, 2009. It focused on reducing GHGs internally in federal agency missions, programs, and operations, but also directs federal agencies to participate in the Interagency Climate Change Adaptation Task Force, which is engaged in developing a national strategy for adaptation to climate change.

EPA's authority to regulate GHG emissions stems from the U.S. Supreme Court decision in Massachusetts v. USEPA (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the court's ruling, EPA finalized an endangerment finding in December 2009. Based on scientific evidence, it found that six GHGs constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Clean Air Act and EPA's assessment of the scientific evidence that form the basis for EPA's regulatory actions.

EPA and the National Highway Traffic Safety Administration are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from onroad vehicles and engines. These next steps include developing the first-ever GHG regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle GHG regulations.

The final combined standards that made up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards implemented by this program are expected to reduce GHG emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012 through 2016).

On August 28, 2012, EPA and the National Highway Traffic Safety Administration issued a joint Final Rulemaking to extend the national program for fuel economy standards to model years 2017 through 2025 passenger vehicles. Over the lifetime of the model year 2017 through 2025 standards, this program is projected to save approximately 4 billion barrels of oil and 2 billion metric tons of GHG emissions.

The complementary EPA and National Highway Traffic Safety Administration standards that make up the Heavy-Duty National Program apply to combination tractors (semi-trucks), heavy-duty pickup trucks and vans, and vocational vehicles [including buses and refuse or utility trucks]). Together, these standards would cut GHG emissions and domestic oil use significantly. This program responds to President Barack Obama's 2010 request to jointly establish GHG emissions and fuel efficiency standards for the medium- and heavy-duty highway vehicle sector. The agencies estimate the combined standards would reduce CO_2 emissions by about 270 million metric tons and save about 530 million barrels of oil over the life of model year 2014 to 2018 heavy-duty vehicles.

In March 2013, EPA proposed Tier 3 Motor Vehicle Emission and Fuel Standards to reduce air pollution from passenger cars and trucks to set new vehicle emissions standards and lower the sulfur content of gasoline, considering the vehicle and its fuel as an integrated system.

3.7.3 Existing Conditions

In the United States, the main source of GHG emissions is electricity generation, followed by transportation. In California, transportation sources (passenger cars, light-duty trucks, other trucks, buses, and motorcycles) make up the largest category of GHG-emitting sources (ARB, 2014). In 2011, the annual California statewide GHG emissions were 448.11 million metric tons of CO_2-equivalent (ARB, 2014). The transportation sector accounts for about 38 percent of the statewide GHG emissions inventory. The electric power sector accounts for about 19 percent of the total statewide GHG emissions inventory. The dominant GHG emitted is CO_2, primarily from fossil fuel combustion.

Total GHG emissions within the SFBAAB were 95.8 million metric tons in 2007 (BAAQMD, 2010c).

3.7.4 Assessment Methods and Thresholds of Significance

Under CEQA, the state and local agencies are required to identify any significant environmental impacts that occur as a result of their actions. CEQA also requires that these agencies avoid or mitigate any impacts to the extent feasible. BAAQMD has developed specific GHG guidelines for compliance with CEQA (BAAQMD, 2012), which provide criteria on how to assess and mitigate project-related impacts on GHG.

Implementing the proposed project would significantly affect air quality and GHG if the proposed project resulted in any of the following:

- Generation of GHG emissions, either directly or indirectly, that may have a significant impact on the environment
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG

BAAQMD adopted CEQA thresholds of significance for GHGs in June 2010 that are currently the subject of recent judicial actions (BAAQMD, 2013c). The operational threshold for GHGs from stationary source operations is 10,000 metric tons per year. The threshold for nonstationary source projects is compliance with a qualified GHG reduction strategy or 1,100 metric tons per year (BAAQMD, 2010b). There is no threshold proposed for construction emissions of GHG.

For information purposes, construction emissions of GHG were estimated using CalEEMod (CAPCOA, 2013), and compared to the state GHG emission inventory and the AB 32 GHG reduction goal to demonstrate the magnitude of the project emissions. Appendix B provides the construction calculations and assumptions used to assess air quality impacts.

3.7.5 Environmental Impacts

Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

GHG emissions increases would only occur during project construction. GHG impacts from project construction were evaluated based on the GHG emissions from offroad construction equipment and onroad vehicles during the construction period. CO_2 emissions from offroad construction equipment were estimated using CalEEMod (CAPCOA, 2013). The proposed project is not expected to result in measurable emissions of other GHGs. Appendix B contains the complete construction calculations used to assess GHG impacts.

Ongoing maintenance activities of the area would continue once the project construction is completed. The proposed project would not change the level of activities or equipment usage during maintenance. Therefore, the proposed project would not cause emission increases of GHG during operations.

Table 3.7-1 presents GHG emissions for project construction and compares the state GHG inventory and AB 32 GHG reduction goal.

TABLE 3.7-1
Project Construction Greenhouse Gas Emissions

	CO_2 (million metric tons)
2015 Emissions	0.000274
2016 Emissions	0.0000255
2007 BAAQMD Inventory	95.8
2010 State Inventory	448.11
State GHG Goal 2020 (AB 32)	427

Note:

The emissions of N_2O and CH_4 from construction were not included in the calculations. Emissions of N_2O and CH_4 from combustion sources are minimal, approximately less than 2 percent of the CO_2 emissions (this includes adjusting to CO_2 equivalent emissions). Only CO_2 emissions were calculated and reported for each of the emission sources.

The GHG emissions from project construction would be temporary and would occur only from July 2015 through January 2016. GHG emissions from construction would be temporary and negligible compared to the local and state GHG inventory. Global climate change is a cumulative impact; therefore, an individual project is not expected to generate enough GHG emissions to significantly influence global climate change. **The minimal GHG emissions during the construction period are not expected to contribute substantially to the regional GHG emission inventory, or contribute to global climate change. Therefore, the proposed project would result in a less than significant impact from GHG emissions.**

Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

BAAQMD established a climate protection program in 2005 to explicitly acknowledge the link between climate change and air quality, and has prepared an air basinwide GHG emissions inventory to support its climate protection activities. Based on the BAAQMD inventory, total GHG emissions within the SFBAAB were 95.8 million metric tons in 2007 (BAAQMD, 2010c).

As shown in Table 3.7-1, the short-term construction GHG emissions would be negligible compared to the state or BAAQMD GHG inventory and GHG emission goal in 2020. The proposed project would not interfere with the AB 32 Scoping Plan and the long-term goal of AB 32 to reduce GHG emissions to 1990 levels by

2020. **The proposed project would not conflict with applicable plans, policies, or regulations intended to reduce GHG emission; therefore, the impact would be less than significant.**

3.7.6 Mitigation Measures

Mitigation measures are not required because the proposed project would have less than significant impacts during construction, and no impacts are expected during operation.

3.8 Hazards and Hazardous Materials

This section describes the hazards and hazardous materials within the study area and assesses the impacts of the proposed project.

3.8.1 Environmental Setting

The proposed project is located on Los Gatos Creek, adjacent to commercial property and residences. The nearest school, River Glen School, is approximately 0.25 mile (approximately 1,400 feet) south of the project site. There are no private airstrips within a 2-mile radius of the project site, and the nearest airport is the San José Municipal Airport, located northeast approximately 2.5 miles. The nearest fire station is approximately 1.25 miles southwest on Cherry Avenue, and the nearest hospital, Santa Clara Valley Health Center, is approximately 2 miles west from the project site on S. Bascom Avenue.

A Phase I site assessment was conducted for the project alignment in 1998 by the City of San José. The site assessment included a review of records for the property, interviews, review of aerial photos, and field assessments. The site assessment indicated the project area contained “debris along the banks of the creek, but it was determined that this type of debris is common along urban stream environments and not indicative of hazardous materials contamination” (City of San José, 1998). The project area has been stable since the 1998 site assessment, including existing residential and commercial uses.

The piles, abutments, and bridge deck on the existing bridge are composed mostly of creosote-treated wood. See Section 3.3, Biological Resources, for background information on creosote-treated products.

3.8.2 Assessment Methods and Thresholds of Significance

Assessment of the potential impacts from implementation of the proposed project focuses on the physical hazards that may occur during the construction phase.

Implementing the proposed project would significantly affect hazards and hazardous materials if the proposed project resulted in any of the following:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, create a significant hazard to the public or the environment
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan

3.8.3 Environmental Impacts

Create a hazard to the public through the routine transport or disposal of hazardous materials, or an accident involving the release of hazardous materials into the environment.

Demolition of the existing bridge structure would generate a large amount of treated wood waste, primarily wood treated with creosote. The handling and disposal of treated wood waste would include Standard Project Conditions regarding the removal and disposal of treated wood. During the demolition stage of the project, the contractor would be required to follow Standard Project Conditions to reduce potential impacts.

Standard Project Conditions

The proposed project would include the following Standard Project Conditions:

- Store treated wood waste off the ground by placing it on blocks or in containers.
- Do not store treated wood waste onsite for more than 90 days (180 days if a containment pad is used).
- Cover treated wood waste in inclement weather to prevent rainwater from leaching chemicals.
- Keep treated wood waste from mixing with other waste.
- Label all treated wood waste shipments with "Treated Wood Waste – Do not burn or scavenge."
- Train employees involved in treated wood waste handling. The training shall include applicable requirements of State of California Division of Occupational Safety and Health and regulations related to hazardous waste, methods for identifying and segregating treated wood waste, safe handling practices, and proper disposal methods.
- Treated wood waste would be disposed of in landfills that are specially designated to receive treated wood. Within the general area, treated wood waste can be disposed of at both the Kirby Canyon and Newby Island landfills.

With the implementation of these Standard Project Conditions and the Standard Project Conditions outlined in Section 3.3, Biological Resources (see MM BIO-1), impacts from the removal of the creosote piles would be less than significant.

The use of the proposed pedestrian bridge would not cause any additional potential hazards, nor would the proposed project, once constructed, introduce hazardous materials to the project site.

3.8.4 Mitigation Measures

Impacts on hazards and hazardous materials would be less than significant; therefore, no mitigation measures are required.

3.9 Hydrology and Water Quality

This section presents describes the hydrology within the study area and assesses the impacts of the proposed project.

3.9.1 Environmental Setting

Los Gatos Creek originates in the Santa Cruz Mountains and flows most of the year, passing through the cities of Los Gatos, Campbell, and San José. Two dams are located on the creek. Lexington Reservoir and Lenihan Dam are upstream of Los Gatos, and Vasona Dam and Reservoir are in Los Gatos. Los Gatos Creek joins the Guadalupe River in Downtown San José at Confluence Point in the Guadalupe River Park. The Guadalupe River drains into the San Francisco Bay at Alviso Slough.

The Los Gatos Creek Trestle is part of the Three Creeks Trail alignment. The trestle crosses Los Gatos Creek downstream of Lincoln Avenue in the Willow Glen neighborhood. The City of San José Flood Insurance Study (FIS), revised February 19, 2014, currently represents the best available hydraulic information for this reach of Los Gatos Creek (Federal Emergency Management Agency [FEMA], 2014). According to the FIS,

floodwaters are relatively well contained in the Los Gatos Creek channel banks. SCVWD has a concrete weir or gaging station about 0.25 mile upstream of the trestle, near the Lincoln Avenue creek crossing. Downstream, the Auzerais Avenue bridge is the next important creek crossing (see Figure 3.9-1). Both I-280 and the Gregory Street Pedestrian bridge cross Los Gatos Creek between the proposed project site and Auzerais Avenue, but these crossings are not included in the analysis as they both span the creek (that is, no instream hydraulic effects). Table 3.9-1 summarizes the bridges within the study area, using the HEC-RAS river stationing to describe the bridge locations. Stationing is used to describe relative distances from a starting point 0+00 – in this case, the confluence of Los Gatos Creek and the Guadalupe River. The upstream station of the Lincoln Avenue crossing 84+88 represents 8,488 feet from the starting point.

TABLE 3.9-1
Location of Bridges in Los Gatos Creek Analysis Area

	HEC-RAS River Station[a]	
Bridge	**Upstream**	**Downstream**
Lincoln Avenue	84+88	84+20
Los Gatos Creek Trestle	75+50	75+30
Auzerais Avenue	49+10	48+43

[a]Stationing is measured in feet along creek centerline. Each crossing has a station on the upstream side of the crossing and on the downstream side of the crossing.

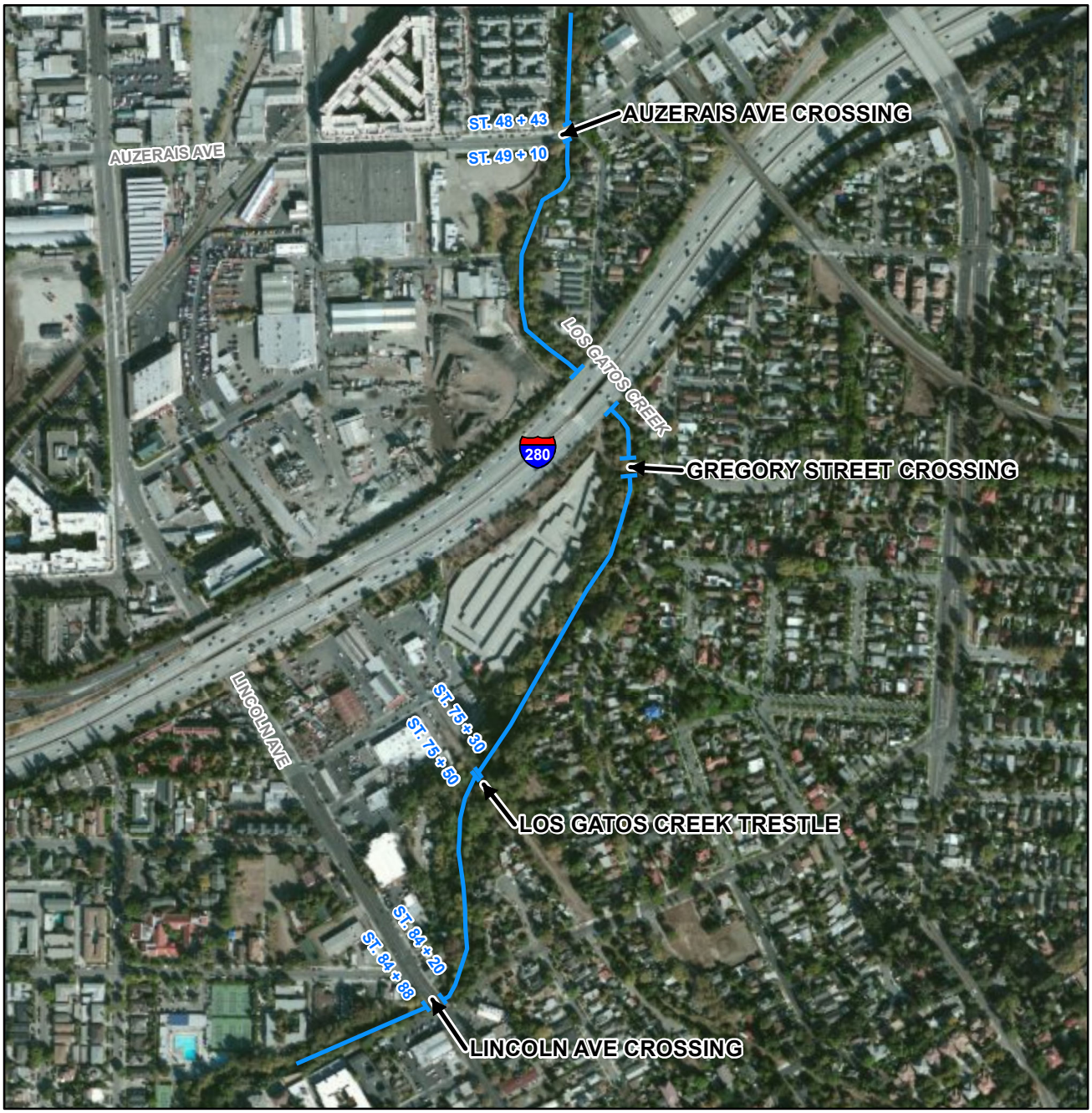
According to the river stationing, the Lincoln Avenue crossing is approximately 970 feet upstream of the Los Gatos Creek Trestle. The Auzerais Avenue crossing is approximately 2,620 feet downstream of the Los Gatos Creek Trestle.

The Los Gatos Creek Trestle is approximately 210 feet long, 2 feet 4 inches deep, 18 feet wide, and is supported by 13 bents with five to eight piles each (depending on the location along the longitudinal profile of the bridge) and two abutments. Bents are spaced 15 feet on center and are oriented at an angle of approximately 9.5 degrees due west from the centerline of the channel. Figure 3.1-1 shows a photo of the trestle substructure looking downstream, from the southeast bank.

SCVWD manages Los Gatos Creek as a raw water recharge and flood control channel. In the lower watershed, Los Gatos Creek passes through urban areas (Los Gatos, Campbell, and San José), and much of the riparian corridor has been fragmented by bank stabilization for flood protection purposes. Within the project area, SCVWD is only able to perform limited maintenance activities because there are few access points.

In the project area, the centerline of the low flow channel appears to be located approximately 90 feet from the north bank of the channel, which is expected based on the angle of the approach from the southeast. Debris buildup on the trestle was observed during field reconnaissance, but no local scour was observed. There is a significant amount of riprap on the south side or inside bend of the creek through the location of the bridge. The location of the riprap may be contributing to the lateral migration of the low flow channel to the north bank.

Debris in the channel comes from a variety of sources, and loading typically increases during storm events. Some potential sources and kinds of debris are downed tree branches and vegetation in Los Gatos Creek and tributaries that outfall into Los Gatos Creek, and runoff from backyards including garbage and lawn furniture. Because this debris collects on the existing trestle, backwater (or water that is held back at the trestle crossing) conditions occur at the Los Gatos Creek Trestle during high-intensity storm events, such as a 100-year event. These occurrences can cause an elevated water surface elevation upstream of the trestle as water is held up at the trestle's bents. The amount of flow that is detained by the trestle during a 100-year flood is estimated between 560 and 600 cubic feet per second, but it should be noted that even during these conditions the water does not leave its bank through this reach. Under normal flow conditions, backwater conditions generally do not occur.

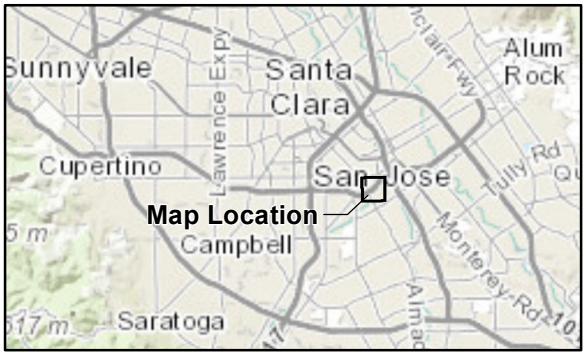


Source: Esri (2014).

LEGEND

Centerline Los Gatos Creek

VICINITY MAP



N

0 125 250 500 Feet

FIGURE 3.9-1
Los Gatos Creek Crossings
Three Creeks Trail Pedestrian Bridge Project
City of San José
San José, CA

CH2MHILL

The National Flood Insurance Program provides flood hazard information within the project area. The current mapping of the floodplain shows 100-year floodwaters to be relatively well contained in the Los Gatos Creek channel in and around the study area (see Figure 3.9-2). As shown on Figure 3.9-2, Los Gatos Creek is designated as Zone A. Zone A includes areas that are subject to inundation by a 100-year flood event; but a detailed hydraulic analysis has not been performed for this zone, and base flood elevations have not been determined. Bordering areas shown on Figure 3.9-2 are classified as Zone D and Zone X. Flood hazards are undetermined, but possible in Zone D. Zone X areas are defined as areas at risk for flood in 500-year events, areas at risk for average depths of 1 foot or less in 100-year events, or with drainage areas less than 1 square mile.

Los Gatos Creek discharges into the Guadalupe River, which is currently listed as an Impaired Water Body by California Environmental Protection Agency under Section 303(d) of the Clean Water Act. The Guadalupe River is listed as impaired due to elevated loads of mercury from mine tailings, and trash from illegal dumping and urban runoff. The City of San José is a permittee under the State Water Resources Control Board Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit No. CAS612008, which requires permit holders to clean up trash source hot spots. Lonus Street, located north of the project site, is considered a designated hot spot.

3.9.2 Assessment Methods and Thresholds of Significance

SCVWD provided an existing conditions hydraulic model for Los Gatos Creek, which was originally developed in 1978 by George S. Nolte & Associates using the USACE Hydraulic Engineering Center (HEC) model HEC-2 (river hydraulics). The HEC-2 model information was imported into the USACE HEC-RAS (River Analysis System) model as a starting point for establishing existing conditions for Los Gatos Creek. HEC-RAS is a newer, more computationally rigorous model than HEC-2 and has a better graphics interface. HEC-RAS Version 4.1.0 was used for this analysis.

The following sources of information have also been used to assess the trestle's location and hydraulic impact:

- FEMA's Flood Insurance Study revised February 19, 2014, Volumes 1 through 4 for the City of San José and National Flood Insurance Program Flood Insurance Rate Map Community Panel No. 06085C0234H effective May 18, 2009 (FEMA, 2014)
- *Los Gatos Creek Trail Reach 4 (Lincoln Avenue to Auzerais Avenue) Location Hydraulic Study*, December 17, 2003 (A-N West, 2003)
- *Los Gatos Creek Trail Reach 5 (Auzerais/Confluence Point) Location Hydraulic Study*, November 2006 (CH2M HILL, 2006)
- *Design Manual Open Channel Hydraulics and Sediment Transport*, June 2009 (SCVWD, 2009b)
- *Water Resources Protection Manual*, August 2006 (SCVWD, 2006)

To analyze the hydraulic impact of the project alternatives for the trestle, the HEC-RAS model was adjusted to reflect conditions for the proposed project. All HEC-RAS input data and results are based on the vertical datum of North American Vertical Datum 1988 and peak discharge from the 100-year storm event. The peak discharge of 7,570 cubic feet per second was obtained from the FEMA Flood Insurance Study (2014).

Source: Esri (2010), Deferal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), Santa Clara County and Incorporated Areas, Panel 234 of 830, Map Number 06085C0234H (May 18 2009).

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INNUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations Determined
ZONE AO Flood depths 1 to 3 feet. Base flood elevations are determined.

OTHER FLOOD AREAS

Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

ZONE X Other Flood Areas
ZONE D Areas in which flood hazards are undetermined, but possible.
The 1% annual chance floodplain boundary.
The 0.2% annual chance floodplain boundary.

Project Area

0 500 1,000 Feet

N

VICINITY MAP

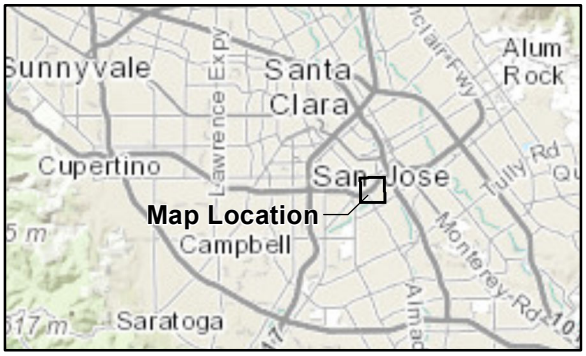


FIGURE 3.9-2
Base Floodplain Map
Three Creeks Trail Pedestrian Bridge Project
City of San José
San José, CA

CH2MHILL

Manning's roughness coefficients are key input data in the HEC-RAS model, and are important for an accurate hydraulic analysis.[6] The roughness coefficient describes the surface roughness and straightness of the channel. The San José Flood Insurance Study describes Manning's roughness for the upstream approach to the bridge, for a distance of approximately 132 feet, as 0.045 (FEMA, 2014). This is typical for an earthy vegetated channel such as Los Gatos Creek at this location. According to field observations, this assumption seems to be appropriate. The majority of area underneath the bridge, with the exception of two bents, was debris free and, therefore, the assumed Manning's roughness value of 0.03 was used in the model at this location.

Debris loading was modeled on the trestle piers using the same standard that was used in the *Location Hydraulic Study for Los Gatos Creek Trail Reach 5 – Auzerais/Confluence Point* (CH2M HILL, 2006). The debris loading meets the standard recommended in the SCVWD's *Water Resources Protection Manual* (SCVWD, 2006). SCVWD follows the USACE practice of modeling debris loads as three times the pier diameter. The trestle's bent diameters are 1.4 feet, and debris loading was modeled as 5 feet, which is slightly more conservative than both the SCWVD and USACE standard.

Since the existing railroad trestle causes backwater to occur, an analysis was completed using HEC-RAS to determine the flow difference if the trestle were to be removed. An iterative flow process was used with the existing conditions model to estimate the flow that causes backwater at the railroad bridge crossing during a 100-year flood event.

Implementing the proposed project would significantly affect hydrology and hydraulics if the proposed project resulted in any of the following:

- Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality
- Substantially alter the existing drainage patterns in a manner that would result in substantial hydraulic changes or flooding upstream or downstream of the project site

3.9.3 Environmental Impacts

Impact HYDRO-1: *Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.*

There is the potential for surface water impacts to occur, such as sedimentation from erosion as a result of ground-disturbing activities during construction (for example, dewatering, pile removal, and presence of construction equipment in general). There is also the potential for surface water impacts from other pollutants in runoff sourced from construction equipment (such as petroleum fuels and lubricants), and construction materials could contaminate runoff or groundwater if not properly stored and used.

The City of San José is required to operate under a Municipal Stormwater National Pollutant Discharge Elimination System Permit to discharge stormwater from the City's storm drain system to surface waters. The Municipal Regional Permit (NPDES Permit No. CAS612008) mandates the City of San José use its planning and development review authority to require that stormwater management measures such as site design, pollutant source control, and treatment measures are included in new and redevelopment projects to minimize and properly treat stormwater runoff. Provision C.3 of the permit regulates development projects that create or replace 10,000 square feet or more of impervious surface. The proposed trail project would create/replace less than 10,000 square feet of impervious surface and would not be subject to the requirements under the Municipal Regional Permit Provision C.3.b.ii.(4), "Road Projects." The proposed project would result in disturbance of approximately 1 acre of soil and would have to comply with the Construction General Permit, administered by the State Water Resources Control Board. Therefore, as described in Section 3.3, Biological Resources, Standard Project Conditions, the development and

[6] Values that are used in Manning's formula to calculate the average velocity of a liquid flowing in an open channel.

implementation of an SWPPP would be implemented. The SWPPP would include BMPs to control erosion from disturbed areas and reduce runoff. Compliance with engineering and construction specifications and adhering to proper material handling procedures would minimize these short-term impacts. Additionally, all development projects, whether subject to the Construction General Permit or not, shall comply with the City of San José Grading Ordinance, including implementing erosion and dust control during site preparation, and with the City of San José Zoning Ordinance requirements for keeping adjacent streets free of dirt and mud during construction.

Excavation for the new bridge abutments or potential retaining walls would occur during the dry season along the slope of the stream bank. Therefore, it is not anticipated that groundwater would be encountered. Installation of appropriate BMPs at the surface would avoid and minimize the potential for subsurface seepage of pollutants. Additionally, the City of San José has obtained and would comply with provisions set forth in the USACE Nationwide Permit and RWQCB Section 401 Water Quality certification.

During construction, compliance with the SWPPP and other Standard Project Conditions in Section 3.3, as well as the City of San José Zoning Ordinance, would minimize discharges to stormwater or water runoff.

Therefore, potential impacts on water quality or waste discharge requirements due to construction activities would be less than significant.

Once the bridge is under use, pedestrian traffic could result in increased trash, litter, and dumping, causing water quality impacts in Los Gatos Creek and downstream in the Guadalupe River (an Impaired Water Body). Due to the bridge's proximity to the Lonus Street hot spot, the City would need to continue to collect trash as necessary to maintain the area in accordance with NPDES Permit No. CAS612008. **Potential impacts on water quality due to increased dumping or trash could be significant.**

Substantial alteration to the existing drainage patterns in a manner that would result in substantial hydraulic changes or flooding upstream or downstream of the project site.

Table 3.9-2 summarizes the hydraulic effects of the proposed project compared to the existing conditions under flood (100-year storm) conditions. Under these conditions, the proposed project would result in a reduction of backwater conditions in the channel upstream of the trestle. This reduction would result from the removal of the trestle bents, which would allow for a more free-flowing channel.

TABLE 3.9-2
Summary of Hydraulic Effects under Flood Conditions

Stationing	Approximate Distance from Trestle	Alternative	Water Surface Elevation (feet)[a]	Velocity (fps)[b]	Top Width (feet)[c]
84+88	948 feet upstream	Existing Conditions	110.0	11.7	50.1
		Proposed Project	109.8	11.9	50.1
84+54		**Lincoln Avenue Bridge**			
84+20	880 feet upstream	Existing Conditions	109.8	11.9	50.1
		Proposed Project	109.5	12.1	50.1
83+35	795 feet upstream	Existing Conditions	109.6	11.4	73.7
		Proposed Project	109.3	11.7	72.7
82+00	660 feet upstream	Existing Conditions	109.4	9.2	92.0
		Proposed Project	109.1	9.6	90.3
79+03	363 feet upstream	Existing Conditions	108.6	7.4	137.8
		Proposed Project	108.0	8.0	131.1

TABLE 3.9-2
Summary of Hydraulic Effects under Flood Conditions

Stationing	Approximate Distance from Trestle	Alternative	Water Surface Elevation (feet)[a]	Velocity (fps)[b]	Top Width (feet)[c]
76+82	142 feet upstream	Existing Conditions	108.4	4.8	258.2
		Proposed Project	107.7	5.4	244.4
75+50	10 feet upstream	Existing Conditions	108.3	4.3	175.5
		Proposed Project	107.7	4.6	173.3
75+40	**Existing Trestle/Proposed Three Creeks Trail Pedestrian Bridge**				
75+30	10 feet downstream	Existing Conditions	107.7	4.6	173.3
		Proposed Project	107.7	4.6	173.3

[a]Water surface elevation is measured in feet and is based on North American Vertical Datum 1988.

[b]Velocity refers to the average velocity in the channel.

[c]Top width refers to the top width of the water surface at the elevation specified.

Note:

fps = feet per second

The upstream water surface profile would be improved, as removal of the trestle would reduce the water surface elevation from approximately 8 inches at the project site up to approximately 2.5 inches near the Lincoln Avenue bridge (between river Stations 84+88 and 75+40). Removal of the trestle to accommodate the new bridge would eliminate blockage that causes the water to back up at the trestle. This would result in a uniform water surface elevation through the study area, with no areas of raised elevations from debris blockage. A smoother and lowered water surface profile would increase the stormwater system efficiency by increasing the channel capacity and allowing existing storm outfalls to drain surface streets during storm events.

Additionally, as Table 3.9-2 indicates, the proposed project would not result in any flow changes downstream of the bridge. Once the trestle is removed, additional flow that could occur under a 100-year flood that would otherwise be detained under existing conditions is not expected to cause raised water surface elevations downstream. The downstream channel banks have the capacity to absorb the additional flow differential of approximately 560 to 600 cfs without affecting or inducing downstream flooding.

Based on the HEC-RAS analysis of the proposed project, **hydraulic changes and flooding upstream or downstream of the project site would be less than significant**.

3.9.4 Mitigation Measures

MM HYDRO-1: To minimize potential impacts from increased trash and litter, trash receptacles would be placed at either end of the proposed bridge. Additionally, signs deterring littering would be conspicuously placed near the bridge.

This mitigation measure would minimize adverse impacts on water quality to below the level of significance.

3.10 Land Use

This section describes and evaluates potential land use effects relevant to the proposed project, specifically focusing on the project's consistency with environmental and land use plans and policies.

3.10.1 Environmental Setting

The proposed project is within the urban area of Willow Glen, located south of Downtown San José. City of San José General Plan land use designations surrounding the project site are Residential Neighborhood, Neighborhood/Community Commercial, Combined Industrial/Commercial, and Light Industrial (City of San José, 2011a). The following sections identify plans relevant to the proposed project.

3.10.1.1 Envision San José 2040 General Plan

The General Plan outlines goals and policies intended to facilitate future development in the City. In accordance with the General Plan land use map, the project area is designated as Open Space, Parklands, and Habitat; the purpose of this designation is to allow low-intensity uses for public or privately owned areas. Since the project area is located within the Urban Growth Boundary, this designation applies to nonprofit or public agency-owned lands permanently used for open space. This includes lands adjacent to the various creeks that run throughout the city (City of San José, 2011a). The General Plan goals and policies relevant to the proposed project are as follows.

Goal IE-1: Land Use and Employment. Proactively manage land uses to provide and enhance economic development and job growth in San José.

- **Policy IE-5.1** Further Goals, Policies, and Actions that support the Vibrant Arts and Culture Vision Element, as well as those for Parks, Trails, Open Space, and Recreation to enhance San José's identity regionally, nationally, and internationally; to serve residents; and to attract workers and visitors.
- **Policy IE-5.2** Promote San José as a great bicycling community, highlighting its weather, topography, and fitness-oriented culture as significant assets for biking in order to attract businesses which support or can benefit from bicycling activity.
- **Policy IE-5.4** Support entertainment offerings and cultural facilities, including but not limited to parks, visual and performing arts, museums, libraries, theatres, historic structures/sites/neighborhoods, festivals, and commercial entertainment venues, particularly those that provide significant social and economic benefit to San José's community, provide opportunities for community participation, achieve excellence and innovation, and/or reflect the City's population.

Goal FS-3: Fiscally Sustainable Land Use Framework. Make land use decisions that improve the City's fiscal condition. Manage San José's future growth in an orderly, planned manner that is consistent with our ability to provide efficient and economical public services, to maximize the use of existing and proposed public facilities, and to achieve equitable sharing of the cost of such services and facilities.

- **Policy FS-3.1** Recognize the value of long-term planning and strong land use policy in managing the City's fiscal position.

Goal FS-5: Fiscally **Sustainable Service Delivery.** The City should provide the highest level of service feasible consistent with its fiscal resources, and in a cost-effective manner so that the City's method of service delivery contributes toward the achievement of a fiscally sustainable City.

- **Policy FS-5.2** Carefully consider the fiscal implications of land use decisions that result in service expansions to avoid significant negative fiscal impacts unless necessary to achieve other critical City objectives. Support the development of compact communities that reduce the demand for service expansions, facilitate more efficient service delivery and generate greater revenue per acre relative to cost for the City.

- **Policy FS-5.11** Identify the most efficient use of available resources to maintain the City's infrastructure and to minimize the need to replace this infrastructure.

Goal EC-7: Environmental Contamination. Protect the community and environment from exposure to hazardous soil, soil vapor, groundwater, and indoor air contamination and hazardous building materials in existing and proposed structures and developments and on public properties, such as parks and trails.

Goal EC-8: Wildland and Urban Fire Hazards. Protect lives and property from risks associated with fire-related emergencies at the urban/wildland interface.

- **Policy VN-1.7** Use new development within neighborhoods to enhance the public realm, provide for direct and convenient pedestrian access, and visually connect to the surrounding neighborhood. As opportunities arise, improve existing development to meet these objectives as well.
- **Policy VN-1.10** Promote the preservation of positive character-defining elements in neighborhoods, such as architecture; design elements like setbacks, heights, number of stories, or attached/detached garages; landscape features; street design; etc.

Goal CD-1: Attractive City. Create a well-designed, unique, and vibrant public realm with appropriate uses and facilities to maximize pedestrian activity; support community interaction; and attract residents, businesses, and visitors to San José.

- **Policy CD-1.1** Require the highest standards of architectural and site design, and apply strong design controls for all development projects, both public and private, for the enhancement and development of community character and for the proper transition between areas with different types of land uses.
- **Policy CD-1.2** Install and maintain attractive, durable, and fiscally- and environmentally-sustainable urban infrastructure to promote the enjoyment of space developed for public use. Include attractive landscaping, public art, lighting, civic landmarks, sidewalk cafés, gateways, water features, interpretive/way-finding signage, farmers markets, festivals, outdoor entertainment, pocket parks, street furniture, plazas, squares, or other amenities in spaces for public use. When resources are available, seek to enliven the public right-of-way with attractive street furniture, art, landscaping and other amenities.

Goal TN-2: Trails as Transportation. Develop a safe and accessible Trail Network to serve as a primary means of active transportation and recreation within an integrated multi-modal transportation system.

- **Policy TN-2.3** Add and maintain necessary infrastructure to facilitate the use of trails as transportation.

Goal TN-3: Accessible, Safe, and Well-Functioning Trails. Design an accessible, safe, and well-functioning trail network that attracts diverse users of varying abilities.

- **Policy TN-3.3** Design bridges, under-crossings, and other public improvements within the designated Trail Network, including grade separation of roadways and trails whenever feasible, to provide safe and secure routes for trails and to minimize at-grade intersections with roadways.

3.10.1.2 San José Green Vision

The San José Green Vision is a 15-year plan for the City's economic growth, environmental sustainability, and creating an enhanced quality of life for the community (City of San José, 2007b). Adopted in October

2007, the Green Vision outlines the following 10 goals the City, in collaboration with residents and businesses, plans to accomplish by the year 2022:

1. Create 25,000 clean tech jobs as the world center of clean innovation
2. Reduce per capita energy use by 50 percent
3. Receive 100 percent of its electrical power from clean, renewable sources
4. Build or retrofit 50 million square feet of green buildings
5. Divert 100 percent of waste from landfill and convert waste to energy
6. Recycle or beneficially reuse 100 percent of its wastewater
7. Adopt a General Plan with measurable standards for sustainable development
8. Ensure that 100 percent of public fleet vehicles run on alternative fuels
9. Plant 100,000 new trees and replace 100 percent of its streetlights with smart, zero-emission lighting
10. Create 100 miles of trails connecting with 400 miles of on-street bikeways

Regarding Goal 10, the City had created 55.7 miles of trails as of 2012 (City of San José, 2014b).

3.10.1.3 Three Creeks Trail Master Plan (Western Alignment)

The Three Creeks Trail Master Plan provides a framework for a new Class I trail to extend primarily along the former Western Pacific Railroad line (City of San José, 2014c). The western alignment portion of Three Creeks Trail, as identified in the Three Creeks Trail Master Plan, would reduce environmental impacts; provide trail design guidelines and features; and set implementation measures for trail, playground, and park-like development. As mentioned previously, the proposed project is located at the connection of Los Gatos Creek Trail and Three Creeks Trail. The bridge would connect the trail to the south bank of the creek, connecting Los Gatos Creek Trail to Three Creeks Trail.

3.10.2 Assessment Methods and Thresholds of Significance

Analysts consulted with City of San José staff and performed extensive online research to identify the range of applicable plans and policies. Analysts then reviewed the plans to learn how the Los Gatos Creek Trestle and proposed Three Creeks Trail were addressed, and determined if the proposed project was consistent.

Implementing the proposed project would significantly affect land uses if the project would conflict with applicable land use plans, policies, or regulations of an agency with jurisdiction over the project. Consistency with any applicable habitat conservation plan or natural community conservation plan (in this case, the Santa Clara Valley Habitat Plan) is addressed in Section 3.3, Biological Resources.

3.10.3 Environmental Impacts

Consistency with plans and policies.

The proposed project was reviewed for consistency with the plans and policies determined to be applicable to the project type and location; specifically, the plans described in Section 3.10.1. With regard to the General Plan, the proposed project is consistent with the Open Space, Parklands, and Habitat land use designation, because intended uses within this designation include permanent trails. In addition, the proposed project is consistent with the goals and policies identified above in that it:

- Promotes San José as a bicycling and pedestrian-friendly community, with a safe, accessible, and well-functioning trail network
- Provides fiscally sustainable public infrastructure
- Is sensitive to environmental conditions such as contamination and wildland/urban fire hazards
- Helps to create a unique urban environment with a sense of historic awareness and community identity

In terms of the Green Vision, the proposed project would connect to Three Creeks Trail and to the future improvements to Los Gatos Creek Trail. When completed, both trails would contribute to the fulfillment of the final goal of the City's Green Vision to create 100 miles of trails.

The proposed project would be consistent with the Three Creeks Trail Master Plan. The bridge is located at the northern end of Three Creeks Trail; as outlined in the Three Creeks Trail Master Plan; this location provides public access (via bicycle and pedestrian use) to the bridge crossing and to Los Gatos Creek Trail. **The proposed project would be consistent with all applicable plans and policies; therefore, impacts would be less than significant.**

3.10.4 Mitigation Measures

Impacts on land use would be less than significant; therefore, no mitigation measures are required.

3.11 Noise

This section describes the noise within the study area and assesses the impacts of the proposed project.

3.11.1 Environmental Setting

The existing bridge is located between a residential neighborhood and a commercial use area. Due to these existing uses within the project area, ambient noise levels are relatively high.

3.11.2 Assessment Methods and Thresholds of Significance

Noise-sensitive land uses within the study area were identified using geographic information system (GIS)-based data, such as land use categories and zoning. If this GIS data did not exist, analysts used Google Earth or Internet searches to identify community resources. The evaluation methodology performed for this analysis included identifying sensitive land uses that have the potential to be affected by the proposed project, including Activity Category A receptors (lands on which serenity and quiet are of high significance), Category B receptors (residential), Category C receptors (museums, schools, hospitals, colleges, parks, cemeteries, and places of worship).

Implementing the proposed project would significantly affect noise resources if the proposed project resulted in any of the following:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels
- Substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project
- Substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project

3.11.3 Environmental Impacts

Impact NOI-1: *Increase exposure to noise levels in excess of established standards.*

Although construction would only occur for a short duration (approximately 7 months), noise levels may occasionally exceed applicable noise standards due to pile driving. Pile driving would be accomplished during daytime hours over the course of several days, and a total of 8 hours of active pile driving is anticipated to be required.

The nearest residence is approximately 175 feet from the southern abutment, where pile driving would take place. San José governs the hours of construction in the municipal code, limiting construction within 500 feet of a residential neighborhood to between 7:00 a.m. and 7:00 p.m., Monday through Friday. **Impacts from increased noise levels would be less than significant with appropriate mitigation measures incorporated.**

Increase exposure to excessive groundborne vibration or groundborne noise levels.

The extraction of existing piles, as well as the installation of new piles, may temporarily expose persons to ground vibrations above ambient levels. Because of the short duration of the proposed project, **impacts on groundborne vibration and noise levels would be less than significant.**

Increase permanent ambient noise levels above existing levels within the project area?

Operation and maintenance of the trail would follow City guidelines of working between 7:00 a.m. and 7:00 p.m., Monday through Friday. The proposed trail would increase the noise level as a result of more human use in the area, including talking, laughing, and warning bells on bicycles. The typical noise levels associated with shouts or ringing bells are approximately 65 to 70 decibels (A-weighted) from 20 feet away, and conversations are measured at 50 to 55 decibels (A-weighted) from the same distance, which would not cause a significant increase to ambient noise levels within the project vicinity; **therefore, impacts on ambient noise levels would be less than significant.**

Impact NOI-2: *Increase the temporary ambient noise levels above existing levels in the project area.*

Construction of the project, including pile driving, would temporarily increase noise levels that would be perceptible in the immediate vicinity of the activity, primarily from 7:00 a.m. to 7:00 p.m., Monday through Friday, and from 9:00 a.m. to 5:00 p.m. Saturday. Operation and maintenance of the area would elevate noise levels and could cause disturbance to noise-sensitive receptors, but these disturbances would be infrequent and temporary. Additionally, mitigation measures listed below would further reduce temporary increases to ambient noise levels during construction; **therefore, impacts on temporary ambient noise levels would be less than significant with appropriate mitigation measures incorporated.**

3.11.4 Mitigation Measures

Based on the above analysis, most project impacts would be less than significant. For Impacts NOI-1 and NOI-2, additional mitigation is required, as follows.

MM NOI-1: Prior to beginning pile-driving activities, the contractor would notify residents within a 300-foot radius at least 1 week in advance. Additionally, sound curtains would be used as necessary to help reduce construction noise levels at nearby residences. **Limiting construction hours to comply with City regulations, combined with the above mitigation measures, would reduce noise impacts to a less than significant level.**

3.12 Transportation and Traffic

This section describes traffic and transportation near the study area and assesses potential traffic impacts related to the proposed project.

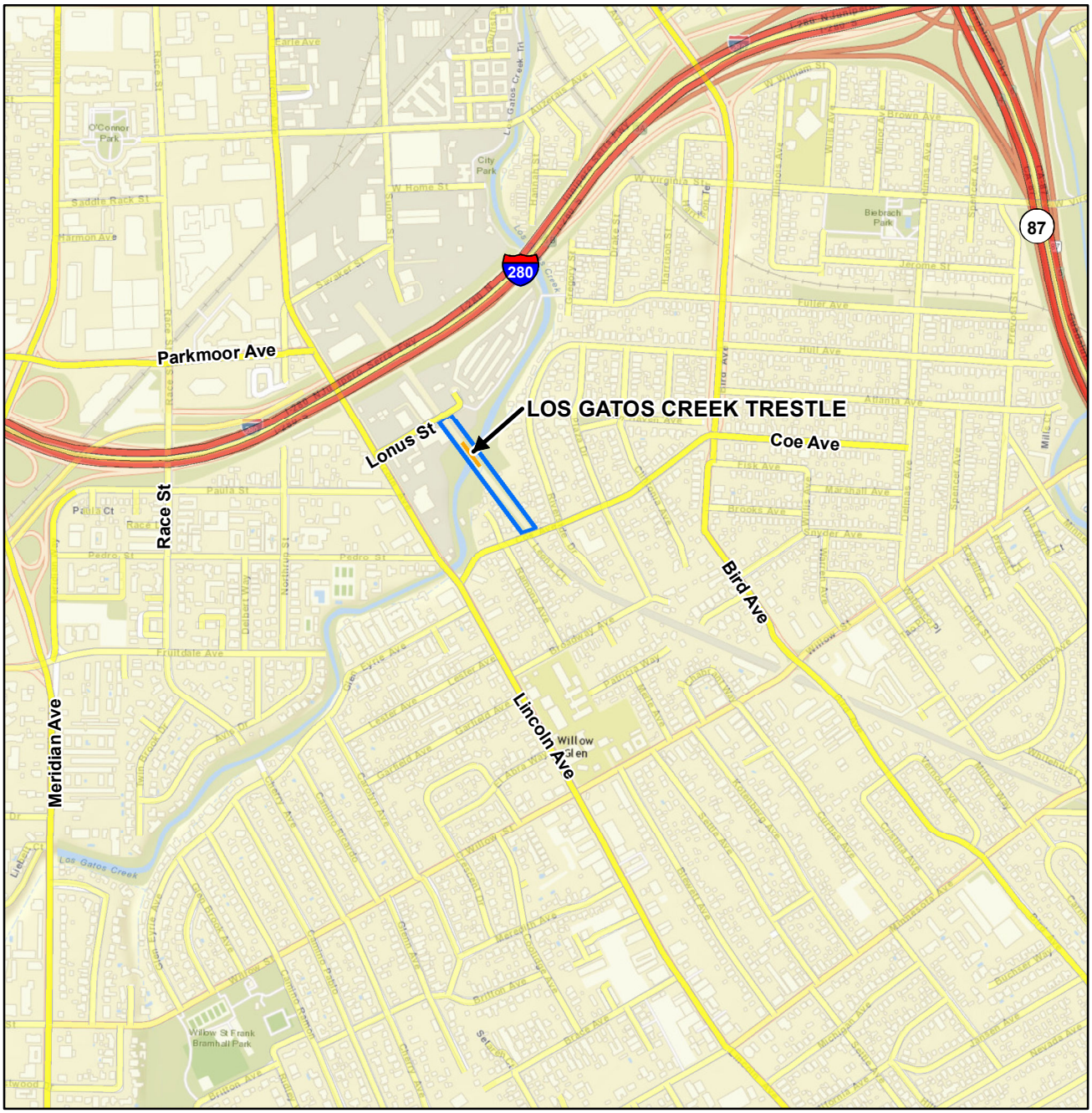
3.12.1 Environmental Setting

The proposed project crosses over Los Gatos Creek between Lonus Street to the north and Coe Avenue to the south. The creek is bordered by residences to the south and a commercial/industrial area to the north (see Section 3.10, Land Use, for a description of surrounding land uses within the project area).

3.12.1.1 Surrounding Roadway Network

Figure 3.12-1 shows the surrounding roadway network. Access to the project area may involve use of the following highways and local streets.

I-280 is a north-south freeway that extends from U.S. Highway 101 (U.S. 101) in San José to Interstate 80 in San Francisco. In the project study area, it is generally oriented east-west and is an eight-lane freeway near Downtown San José. Within the project study area, I-280 has six mixed-flow lanes and two high-occupancy-vehicle lanes. Access to the project site to and from I-280 is provided via freeway ramps at Parkmoor Avenue, Race Street, Meridian Avenue, and Bird Avenue. I-280 carries 237,000 annual average daily traffic (AADT) south (east) of State Route 87 (SR-87), 193,000 AADT between SR-87 and Bird Avenue, 238,000 AADT between Bird Avenue and Race Street, and 166,000 north (west) of Race Street (Caltrans, 2013).

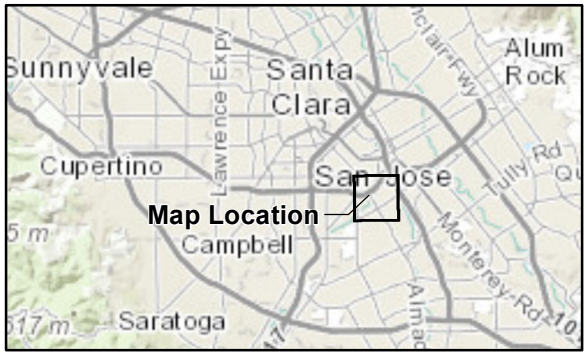


Source: ESRI, 2014

LEGEND

- Freeways
- Local Streets
- Project Area
- Bridge Footprint

VICINITY MAP



N

0 250 500 1,000 Feet

FIGURE 3.12-1
Surrounding Roadway Network
Three Creeks Trail Pedestrian Bridge Project
City of San José
San José, CA

CH2MHILL

SR-87 is a six-lane north-south freeway (four mixed-flow lanes and two high-occupancy-vehicle lanes) in the project vicinity. SR-87 begins at its interchange with State Route 85 and extends northward, terminating at its junction with U.S. 101. Within the project vicinity, SR-87 is accessible via I-280. SR-87 carries 170,000 AADT south of I-280 and 101,000 AADT north of I-280 (Caltrans, 2013).

Bird Avenue is a four- to six-lane north-south arterial that provides direct access to I-280 to the east of the proposed project. Bird Avenue extends from the Willow Glen area to Park Avenue, where it splits into a pair of one-way streets – Montgomery Street (southbound) and Autumn Street (northbound).

Lincoln Avenue is a north-south four-lane arterial with a mix of commercial and light industrial land uses within the study area. It extends from Park Avenue south through Willow Glen. Lincoln Avenue is designated as a Main Street in the City's General Plan and is also designated as a Transit Corridor. Lincoln Avenue, near Brace Avenue, carries 17,500 average daily trips (ADT) (Fehr & Peers, 2010).

Race Street is a two-lane north-south roadway extending from the Alameda Garden to just south of I-280, where it becomes Cherry Avenue. Race Street has a partial interchange (northbound offramp) with I-280.

Meridian Avenue is a two- to four-lane north-south arterial between Camden Avenue in South San José and Park Avenue to the north, where it terminates. Meridian Avenue provides access to and from I-280 to the west of the proposed project. Meridian Avenue carries 34,900 ADT near Southwest Expressway (Fehr & Peers, 2010).

Parkmoor Avenue is parallel to and north of I-280, providing access to northbound I-280. Parkmoor Avenue is a one-way street (westbound) between Meridian Avenue and Bascom Avenue in the westward direction. Parkmoor Avenue consists of two lanes between Lincoln Avenue and Race Street and four lanes between Race Street and Meridian Avenue.

Lonus Street is an approximate 700-foot-long two-lane access road. Lonus Street begins at Lincoln Avenue on the west and ends in a cul-de-sac at an industrial area and Los Gatos Creek, immediately north of the proposed project. Access to the site would be provided from Lonus Street.

Coe Avenue is a two-lane east-west street between Lincoln Avenue on the west and Delmas Avenue on the east. Coe Avenue is primarily a residential street. Access to the site is also provided from Coe Avenue.

3.12.1.2 Transit Service

Local transit service in the project area is provided by the Valley Transportation Authority. Route 64 travels on Lincoln Avenue and Coe Avenue, and several bus stops are located along these roads near the project site (Santa Clara Valley Transportation Authority, 2014).

3.12.2 Regulatory Setting

The following section discusses the planning documents that are applicable to the proposed project, including the City of San José General Plan (*Envision San José 2040 General Plan*) and the City of San José Bicycle Master Plan (San José Bike Plan 2020).

3.12.2.1 Envision San José 2040 General Plan

The City of San José General Plan (City of San José, 2011b) includes a set of balanced, long-range, multimodal transportation goals and policies that provide for a transportation network that is safe, efficient, and sustainable (minimizes environmental, financial, and neighborhood impacts). In combination with land use goals and policies that focus growth into areas served by transit, these transportation goals and policies are intended to improve multimodal accessibility to employment, housing, shopping, entertainment, schools, and parks, and create a city where people are less reliant on driving to meet their daily needs. San José's Transportation Goals, Policies, and Actions aim to:

- Establish circulation policies that increase bicycle, pedestrian, and transit travel, while reducing motor vehicle trips, to increase the City's share of travel by alternative transportation modes.

- Promote San José as a walking- and bicycling-first city by providing and prioritizing funding for projects that enhance and improve bicycle and pedestrian facilities.

Table 3.12-1 provides the City's transportation goals that are applicable to the proposed project.

TABLE 3.12-1
Envision San José 2040 Relevant Transportation Policies on Trip Generation

Goal	Description
Goal TR-1- Balanced Transportation System	Complete and maintain a multimodal transportation system that gives priority to the mobility needs of bicyclists, pedestrians, and public transit users while also providing for the safe and efficient movement of automobiles, buses, and trucks.
Goal TR-2- Walking and Bicycling	Improve walking and bicycling facilities to be more convenient, comfortable, and safe, so that they become primary transportation modes in San José.
Goal TR-9- Tier I Reduction of Vehicle Miles Traveled	Reduce Vehicle Miles Traveled (VMT) by 10%, from 2009 levels, as an interim goal.
Goal TR-10- Tier II Vehicle Miles Traveled Reduction	Reduce VMT by an additional 10% above Goal TR-9 (a 20% reduction as measured from 2009), at a later date to be determined by the City Council, based on staff analysis of the City's achieved and anticipated success in reducing VMT.
Goal TR-11- Regional and State VMT Reduction Efforts	Reduce VMT an additional 20% above Goals TR-9 and TR-10 (a total reduction of 40% as measured from 2009) by participating and taking a leadership role in ongoing regional and statewide efforts to reduce VMT.
Goal TN-1- National Model for Trail Development and Use	Develop the nation's largest urban network of trails. Become a national model for trail development and use. Remain a national leader in terms of the scale and quality of trails.
Goal TN-2- Trails as Transportation	Develop a safe and accessible Trail Network to serve as a primary means of active transportation and recreation within an integrated multimodal transportation system.
Goal TN-3- Accessible, Safe, and Well-Functioning Trails	Design an accessible, safe, and well-functioning trail network that attracts diverse users of varying abilities. Within this goal, the following policy applies: TN-3.3 Design bridges, under-crossings, and other public improvements within the designated Trail Network, including grade separation of roadways and trails whenever feasible, to provide safe and secure routes for trails and to minimize at-grade intersections with roadways.

Source: City of San José, 2011b

3.12.2.2 San José Bike Plan 2020

The San José Bike Plan 2020 (City of San José, 2009) defines the City's vision to make bicycling an integral part of daily life in San José. The plan recommends policies, projects, and programs to realize this vision and create a San José community where bicycling is convenient, safe, and commonplace. The Bike Plan defines a 500-mile network of bikeways that focuses on connecting offstreet bikeways with onstreet bikeways. The proposed project is part of the City's Three Creeks Trail Master Plan (City of San José, 2014a) and is a critical link between Three Creeks Trail (western alignment) and Los Gatos Creek Trail Reach 4.

3.12.3 Assessment Methods and Thresholds of Significance

3.12.3.1 Construction Trip Generation

Construction of the proposed project is expected to begin in the summer of 2015 and last for approximately 7 months. The amount of traffic generated by the project was estimated based on the anticipated construction schedule, activities, workforce, and anticipated daily truck activity at the site. The vehicular trips associated with the proposed project were separated into construction worker trips (generally auto

trips) and delivery and haul trips (truck trips). It is assumed that a maximum of 10 construction workers would be needed throughout construction and that the number of truck trips generated would vary depending on the construction phase. The maximum number of trips (trucks and auto trips) would occur during the demolition and construction phases, and are estimated to be 44 daily one-way trips and 10 peak-hour trips. The truck trips were converted to passenger car equivalent units (PCE) at a ratio of 1.5 passenger cars for each truck, consistent with the *2010 Highway Capacity Manual* guidelines (Transportation Research Board of the National Academies, 2010). It was assumed that the truck trips would be scheduled to occur outside of peak hours. Table 3.12-2 summarizes the project construction trips.

TABLE 3.12-2
Construction Trip Generation (Peak Period)

Trip Type	Number of Vehicles	Daily One-Way Trips	Peak Hour (a.m.)			Peak Hour (p.m.)		
			In	Out	Total	In	Out	Total
Hauling Trucks	4	8	0	0	0	0	0	0
Delivery Trucks	4	8	0	0	0	0	0	0
PCE (1.5)	12	24	0	0	0	0	0	0
Workforce	10	20	10	0	10	0	10	10
Total Construction Traffic in PCE	**22**	**44**	**10**	**0**	**10**	**0**	**10**	**10**

Note:

Trucks were converted to PCEs at a rate of 1.5.

3.12.3.2 City of San José Traffic Impact Thresholds

Based on the City of San José's traffic impact thresholds, a significant traffic impact occurs when a proposed development would either: (1) cause the level of service (LOS) at an intersection to fall below LOS D, or (2) contribute the equivalent of 1 percent or more to existing traffic congestion at an intersection already operating at LOS E or F (City of San José, 2005). LOS calculations were not conducted as part of this analysis because there would be no permanent project-generated traffic. The City's standard of a 1 percent increase in project traffic has been used to evaluate the potential project construction (temporary) impacts.

Implementing the proposed project would significantly affect transportation and traffic if the proposed project resulted in any of the following (the project would not result in any changes to air travel or parking; therefore, these transportation-related resources were eliminated from analysis):

- Conflict with an applicable congestion management program, including, but not limited to, LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways
- Substantial increase in hazards due to a design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)
- Inadequate emergency access
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities

3.12.4 Environmental Impacts

Conflict with an applicable congestion management program, including, LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

The proposed project would result in temporary, short-term increases in local traffic as a result of construction-related workforce traffic (employee travel to and from the site) and material deliveries. The proposed project is anticipated to generate a maximum of 44 daily trips with 10 trips occurring during each peak hour.

The City of San José considers a significant impact to occur when a project contributes the equivalent of 1 percent or more to existing traffic congestion at a roadway or intersection already operating at an unacceptable LOS.

The majority of the project's construction-related trips (vehicle and truck trips) would occur on I-280, Bird Avenue, Lincoln Avenue, Race Street, Meridian Avenue, Parkmoor Avenue, and Coe Avenue. The project-added trips represent a 0.03 percent increase in ADT on I-280, a 0.13 percent increase in ADT on Meridian Avenue, and a 0.25 percent increase in the Lincoln Avenue ADT. The percentage increases in project-added trips fall well below the City traffic impact threshold. Existing ADTs are not available for the other study roadways, but the local street capacity would be sufficient to handle the additional traffic given the small number of project-added trips.

The construction contractor would be required to submit traffic control and traffic routing plans to the City of San José for approval prior to mobilization. The plans would be required to comply with the City's specifications (Municipal Code Section 11.12.050) and with the Caltrans *California Manual of Uniform Traffic Control Devices for Street and Highways*. Furthermore, no construction closures are expected and construction would be temporary, lasting approximately 7 months. **Therefore, because of the negligible increase in traffic and the short duration of construction, impacts on LOS standards and other standards would be less than significant.**

Substantially increase hazards due to a design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment).

Construction of the proposed project would occur entirely outside of the public right-of-way. The proposed project would not involve any physical changes to public roadways. The proposed project would not be located next to incompatible land uses as no change in land use is proposed. **Therefore, the proposed project would not increase hazards on area roadways due to a design feature or incompatible use, and there would be no impact.**

Result in inadequate emergency access.

The proposed project would not involve any physical changes to public roadways or access routes. The small increase of construction vehicles traveling to and from the project site would not result in inadequate emergency access. No roads would require closure in order to construct the project. Flaggers would likely be required during the delivery of larger construction equipment and materials, but this would occur for short periods at the project access points on Lonus Street and Coe Avenue. The construction contractor would be required to coordinate with the City of San José prior to mobilization. **The impact would be less than significant.**

Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The proposed project would support a planned pedestrian and bicycle trail network within the City and would cause a beneficial impact on the success of the City's Three Creeks Trails system. The proposed project is also in line with the City's goal to "promote San José as a walking- and bicycling-first city by

providing and prioritizing funding for projects that enhance and improve bicycle and pedestrian facilities," as well as the specific transportation-related goals identified in Table 3.12-1.

Although no road closures are anticipated, flaggers would likely be required during the delivery of larger construction equipment and materials. This would occur for short periods at the project access points on Lonus Street and Coe Avenue. As part of the traffic control and traffic routing plans, the construction contractor may be required to coordinate with the City and Valley Transportation Authority to assure minimal disruption to transit service along Coe Avenue and Lincoln Avenue in advance of deliveries of larger equipment and materials.

The proposed project would not be expected to conflict with adopted policies, plans, or programs supporting alternative transportation; therefore, impacts would be less than significant.

3.12.5 Mitigation Measures

Impacts on transportation and traffic would be less than significant; therefore, no mitigation measures are required.

3.13 Utilities and Public Services

This section describes the utilities and public services within the study area and assesses the impacts of the proposed project. The assessment focuses on the following utilities and service systems: solid waste and recycling, fire prevention and suppression, and the potential for project construction to conflict with existing utilities.

3.13.1 Environmental Setting

3.13.1.1 Solid Waste and Recycling

Residential solid waste and recycling collection services in western and central sections of San José are provided by Green Team (solid waste and recycling collection) and GreenWaste Recovery (green waste collection). Commercial solid waste and recycling (including green waste) collection services are provided by Republic Services of Santa Clara County. The City of San José has an existing contract with Newby Island Sanitary landfill through December 31, 2020, with the option to extend the contract as long as the landfill is open. The City has an annual disposal allocation for 395,000 tons per year. As of August 2014, Newby Island landfill had approximately 36 percent capacity remaining (CalRecycle, 2014a).

Other waste, including construction debris, is disposed of at Kirby Canyon landfill in southern San José. Kirby Canyon landfill is a 827-acre landfill that accepts mixed municipal, industrial, construction/demolition, tires, and green materials, with a daily maximum throughput of 2,600 tons. As of August 2014, Kirby Canyon landfill had approximately 57 million cubic yards of capacity remaining (CalRecycle, 2014b).

3.13.1.2 Fire Prevention and Suppression

The nearest fire station is approximately 1.25 miles southwest on Cherry Avenue, and the nearest hospital, Santa Clara Valley Health Center, is approximately 2 miles west from the project site, on S. Bascom Avenue.

3.13.1.3 Existing Utilities

Two utilities are immediately adjacent to the existing trestle:

- An overhead Pacific Gas and Electric Company electrical transmission line crosses the project area, connecting to a tower 75 feet north of the trestle.
- An underground City of San José sanitary sewer line crosses Los Gatos Creek roughly parallel to the trestle, with an access port 20 feet west of the trestle on the south bank of the creek.

3.13.2 Assessment Methods and Thresholds of Significance

Implementing the proposed project would significantly affect utilities and public services if the proposed project resulted in any of the following:

- Be served by a landfill with insufficient capacity to accommodate the project's solid waste disposal needs
- Conflict with federal, state, and local statutes and regulations related to solid waste
- Result in accidents to or disruption of services from existing utilities
- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities (fire protection), the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives

3.13.3 Environmental Impacts

Be served by a landfill with insufficient capacity to accommodate the project's solid waste disposal needs, or conflict with federal, state, and local statutes and regulations related to solid waste.

The proposed project would generate up to approximately 500 cubic yards of material requiring disposal. Surrounding landfills have adequate capacity to accept the waste generated from removal of the existing trestle. As described in Section 3.8, Hazardous Materials, the handling and disposal of treated wood would be done in accordance with DTSC guidelines. **Therefore, the impact would be less than significant**.

Result in accidents to or disruption of services from existing utilities.

Construction activities may result in the accidental disruption of the overhead power line and the underground sewer pipeline, but the potential is low due to established practices for utility identification and avoidance, and Occupational Health and Safety Administration (OSHA) protocols required during construction. **Therefore, the impact would be less than significant.**

Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.

Construction of the proposed project would not result in substantial physical impacts or require the alteration of any government facilities. The new structure would be constructed out of concrete and steel, which would be fire resistant. The existing bridge has been the source of several fires over the past several years (CH2M HILL, 2012a). Replacement of the existing trestle with a fire-resistant structure would eliminate the need for fire suppression. Once constructed, the new bridge would have no impacts on any facilities, governmental or otherwise. **This impact would be less than significant.**

3.13.4 Mitigation Measures

Impacts on utilities and public services would be less than significant; therefore, no mitigation measures are required.

CHAPTER 4

Cumulative Impacts

Cumulative impact analysis is an important component of the environmental documentation and approval process, and is required by CEQA. The cumulative effects analysis in this document evaluates the combined effects of this proposed project and other projects that could result in similar environmental impacts

4.1 Cumulative Programs and Projects

4.1.1 Los Gatos Creek Trail Reach 4

The Los Gatos Creek Trail Reach 4 project is a 0.66-mile paved bike/pedestrian trail along Los Gatos Creek, between Lonus Avenue and Auzerais Avenue. The trail is made up of an asphalt-paved Class 1 trail with two 6-foot lanes and two 2-foot unpaved shoulders on either side of the trail. The project is a segment of Los Gatos Creek Trail, which would stretch for 19 miles from Lexington Reservoir Country Park on the south to the confluence of Los Gatos Creek and the Guadalupe River on the north.

A planned future improvement to the trail would connect the existing trail to the north side of the Three Creeks Trail pedestrian bridge. This new trail segment (approximately 225 feet in length) would be constructed along the northern/western side of the creek. Figure 4-1 shows the current and future layout of the trail in comparison to Three Creeks Trail (western alignment) and the pedestrian bridge.

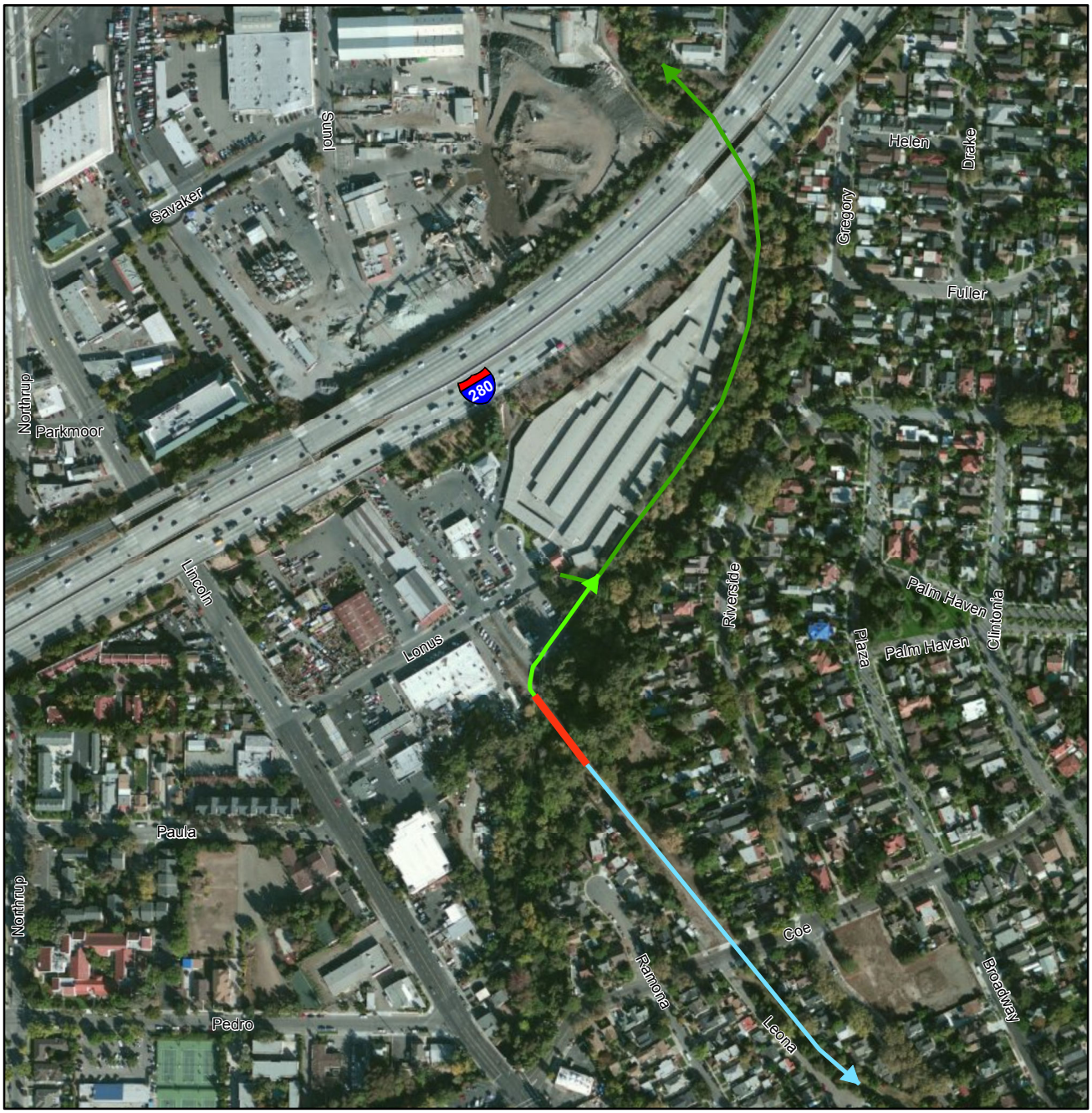
At this time, the construction schedule is uncertain due to funding, but the City is currently pursuing grant and local funding opportunities. An Initial Study and Mitigated Negative Declaration were prepared for the project, and were adopted by the City of San José in 2004.

4.1.2 Three Creeks Trail (Western Alignment)

The Three Creeks Trail Master Plan was recently completed for the development of a new Class I trail alignment extending primarily along the former Western Pacific Railroad line acquired by the City of San José in 2011. The Three Creeks Trail Master Plan for the western alignment of Three Creeks Trail identifies a trail alignment that would reduce environmental impacts; provide trail design guidelines and features; and set forth implementation measures for trail, playground, and park-like development. The project would extend approximately 6,660 feet between the Three Creeks Trail pedestrian bridge and Falcon Place. A small portion is located on an already-built trail between Minnesota Avenue and Falcon Place. The trail is currently planned to start on the south side of the Three Creeks Trail pedestrian bridge, and would connect to Los Gatos Creek Trail and end at Falcon Place until future development of the adjacent Guadalupe River Trail is complete. Figure 4-1 shows the proposed location of the trail in comparison to Los Gatos Creek Trail (both current and future portions) and the pedestrian bridge.

Railway operations are to be recalled with the following elements along the trail system: trail-naming signage with a train icon at all entry points, paved gateways scored to be reminiscent of railway tracks, site-specific gateway elements that take the form of water tanks common to railways, truss-inspired fencing and benches, and stacked crates inspired by products produced in the canneries and carried to market via railway. Five interpretive stations would recall the corridor's history.

At this time, the construction schedule is uncertain due to funding, but the City is currently pursuing grant and local funding opportunities. Once funding is established, the trail would be constructed one phase at a time. An Initial Study/Mitigated Negative Declaration was prepared for the project, and was adopted by the City of San José in November 2014.



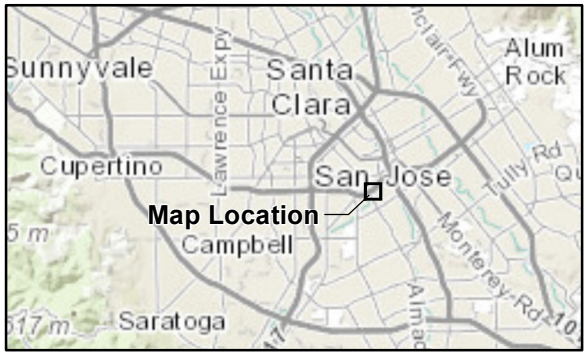
Source: Esri (2014).

LEGEND

Name

- Current Los Gatos Creek Trail (Reach 4)
- Future Los Gatos Creek Trail (Reach 4)
- Three Creeks Trail (Western Alignment)
- Proposed Bridge

VICINITY MAP



N

0 125 250 500 Feet

FIGURE 4-1
Cumulative Projects
Three Creeks Trail Pedestrian Bridge Project
City of San José
San José, CA

CH2MHILL

4.2 Summary of Cumulative Impacts for Individual Resource Areas

4.2.1 Aesthetics

Neither the Los Gatos Creek Trail project nor the Three Creeks Trail project are expected to produce long-term adverse impacts on visual resources. The area is part of San José's trail network, which is considered to be a scenic amenity (City of San José, 2007a). Thus, the combined aesthetic effects of the proposed project and these other projects would not be cumulatively considerable.

4.2.2 Air Quality

According to BAAQMD CEQA guidance, projects that would not exceed the significance thresholds are not considered to be cumulatively significant. As described above, project construction emissions would be lower than the 2010 BAAQMD significance thresholds. Additionally, the construction emissions would be temporary, and the maximum daily emissions would occur for only a portion of the construction period. The other projects would be constructed at a different time than the proposed project and, therefore, would not contribute additional pollutants on a pounds-per-day basis. For these reasons, the combined air quality impacts of the proposed project and the other projects would not be cumulatively considerable.

4.2.3 Biological Resources

Potential cumulative impacts on biological resources within and adjacent to Los Gatos Creek in the project vicinity from the proposed Los Gatos Creek Trail Reach 4 and the Three Creeks Trail (western alignment) project would include vegetation removal (including potential removal of ordinance-sized trees), short-term disturbances to migratory and resident birds during the bird nesting season, and potential impacts on aquatic resources from erosion and sedimentation. These short-term impacts would be reduced to a level below significance as these projects would implement similar to the Standard Project Conditions listed in Section 3.3. In addition, the bridge would be fully operational at least a year before these two projects are constructed. Therefore, cumulative impacts on biological resources would be considered less than significant as the bridge project area would be fully restored prior to the implementation of the other two proposed projects.

4.2.4 Cultural Resources

As described in Section 3.4, the proposed project has the potential to affect subsurface resources, for which Standard Project Conditions and mitigation measures have been prescribed to mitigate potential impacts. Additionally, construction of the upcoming Los Gatos Creek Trail Reach 4 project would also have the potential to disturb subsurface resources along the creek. Construction of Three Creeks Trail (western alignment) is not expected to result in a substantial amount of subsurface disturbance, as only minimal ground disturbance would occur due to miscellaneous trail features (such as, light and sign fixtures). The potential for these activities to affect these subsurface archaeological resources would be similar to the proposed project, and similar Standard Project Conditions and mitigation measures are likely to be implemented to reduce impacts. With the implementation of these measures, cumulative impacts would be less than significant.

4.2.5 Energy

Similar to the proposed project, the Los Gatos Creek Trail Reach 4 and the Three Creeks Trail (western alignment) projects would use gasoline and diesel fuel to power heavy construction equipment and worker commute vehicles. Energy use would be temporary, and there would be no long-term wasteful or significant increase in fuel supplies. Therefore, the projects together would not result in a significant cumulative impact.

4.2.6 Geology and Soils

The proposed bridge, together with the other projects, is likely to increase foot and bicycle traffic on existing and future trails connecting to the bridge, but this traffic does not significantly affect erosion on flat ground such as exists around the project location. The proposed project would not contribute to a significant cumulative impact.

4.2.7 Greenhouse Gases

According to BAAQMD CEQA guidance, projects that would not exceed the significance thresholds are not considered to be cumulatively significant. Cumulative impacts on GHG and climate change could result from multiple simultaneous projects. Based on the scope of the project and its minimal levels of GHG emissions compared to the regional and state inventory, and the AB 32 GHG emission reduction goal, the cumulative increase in proposed project construction emissions, together with the other projects, is not expected to cause substantial cumulative GHG impacts.

4.2.8 Hazards and Hazardous Materials

As described in Section 3.8, past studies have indicated little potential for hazardous material to occur in the project area. Impacts from all projects would be less than significant; therefore, no cumulative impacts are anticipated.

4.2.9 Hydrology and Water Quality

The Los Gatos Creek Trail Reach 4 and the Three Creeks Trail (western alignment) projects would be constructed outside of the Los Gatos Creek floodplain; therefore, there is no potential for cumulative effects. All projects would implement similar standards for water quality control (such as, implementation of stormwater BMPs pursuant to an SWPPP, and continued maintenance of the creek channel in accordance with NPDES Permit No. CAS612008), which would maintain the potential for cumulative water quality impacts at a less than significant level.

4.2.10 Land Use

The proposed project, together with the Los Gatos Creek Trail Reach 4 and Three Creeks Trail (western alignment) projects, would positively contribute to meeting General Plan and Green Vision goals regarding the creation of bicycle and pedestrian facilities, and also would be fully consistent with the development of the trail facilities identified in the Three Creeks Trail Master Plan. For these reasons, cumulative impacts would be less than significant.

4.2.11 Noise

Because the proposed project would not be built concurrently with other anticipated projects, it is not expected to result in a significant cumulative noise impact.

4.2.12 Transportation and Traffic

Because the proposed project would not be built concurrently with other anticipated projects, it is not expected to result in a significant cumulative traffic impact.

4.2.13 Utilities and Public Services

Los Gatos Creek Reach 4 and Three Creeks Trail (western alignment) construction is not expected to generate construction waste, as no substantial demolition or excavation is likely to be required. Neither project is expected to include flammable structures or otherwise increase fire risk. In addition, each project would follow established practices for utility location and follow OSHA protocols, similar to the proposed project. For these reasons, cumulative impacts would be less than significant.

CHAPTER 5

Other CEQA Considerations

5.1 Growth Inducement

CEQA Guidelines Section 15126.2(d) requires that an EIR identify the likelihood that a proposed project could "foster" or stimulate "…economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Construction of the proposed project would result in a temporary demand for workers and related support services, but demand for construction labor is expected to be met by the local labor pool. The proposed project would allow for the future Los Gatos Creek Trail connection to the future Three Creeks Trail system, but this would not encourage future growth to the area. Based on the above discussion, the proposed project would not result in growth-inducing impacts.

5.2 Significant Irreversible Environmental Changes

CEQA Guidelines Section 15126.2(c) requires agencies to consider to the fullest extent possible any irreversible and irretrievable commitments of resources that would be involved in the proposed action, should it be implemented. Nonrenewable resources committed during project initiation might be irreversible, because commitments of such resources might permanently remove the resources from further use. CEQA requires evaluation of irretrievable resources to assure that consumption is justified. For example, cultural resources are nonrenewable; therefore, any destruction or loss is irreplaceable.

The proposed new bridge would result in use of construction materials that could not be restored (for example, metal materials; excavation and/or importing of soils and rocks; and energy used to manufacture, transport, or construct the bridge), as well as the use of nonrenewable resources (for example, fuel) to operate construction equipment. The consumption of these nonrenewable resources would be minimal and would not represent a significant impact on irreversible and irretrievable environmental commitments.

5.3 Significant and Unavoidable Impacts

CEQA Guidelines Section 15126.2(b) requires agencies to describe the significant environmental effects that cannot be avoided if the proposed project is implemented. Based on the analysis in Chapters 3 and 4, there are no environmental effects that cannot be mitigated to a less than significant level.

CHAPTER 6

Alternatives

This chapter describes the alternatives to the proposed project, and presents a summary comparison of the potential significant environmental effects of each of the alternatives, based on the analyses previously presented in Sections 3.1 through 3.13. Also, other alternatives considered, but not carried forward for detailed evaluation, are discussed in Section 6.4.

6.1 Introduction

The purpose of the alternatives analysis in an EIR, as stated in Section 15126.6(a) of the State CEQA Guidelines, is to

> *describe a range of reasonable alternatives to the project…, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives…[T]he discussion of alternatives shall focus on alternatives to the project…which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly* (CEQA Guidelines Section 15126.6(b)).

Therefore, an EIR must describe a range of reasonable alternatives that could feasibly attain most of the basic objectives of the proposed project. The feasibility of an alternative may be determined based on a variety of factors, including, but not limited to, economic viability, jurisdictional authority, and other plans or regulatory limitations (CEQA Guidelines Section 15126.6(f)(1)).

6.2 Description of Alternatives

6.2.1 Retrofit Alternative

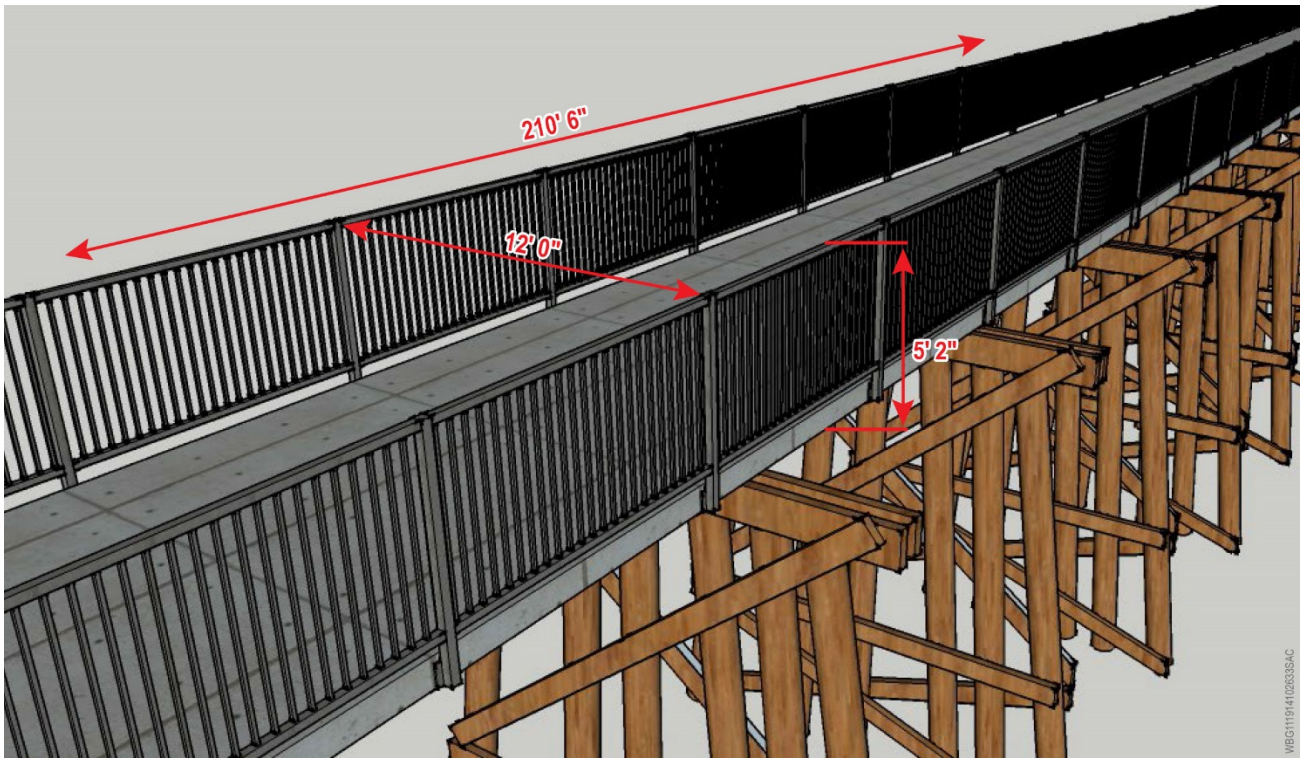
The Retrofit Alternative would consist of the reuse and repair of the existing Los Gatos Creek Trestle. The existing trestle is an open-deck, pile-supported trestle formerly owned by Union Pacific Railroad but acquired by the City of San José in December 2011 as part of a land purchase for the corridor extending from Lonus Street to Minnesota Avenue. The structure is supported by two timber pile abutments and thirteen timber pile bents with five to eight piles each. The current configuration of the open deck does not meet current safety standards for use as a pedestrian or bicycle path.

The Retrofit Alternative would include replacing the existing deck with an 8-inch-thick concrete deck, installing a new 54-inch-high galvanized metal bicycle-safe railing system, as well as making structural modifications to the existing bridge (CH2M HILL, 2012a). The retrofit feasibility study was prepared in 2012; thus, additional repairs may now be necessary due to further deterioration. Structural modifications would include, at a minimum, the removal of all the existing timber ties; epoxy injection at approximately 15 decayed points on the longitudinal stringers; the replacement of caps at Bents 3, 5, and 13; excavation and replacement of two abutments; and replacement or reconstruction of piles within Bents 4, 6, 7, 11, and 12. The bridge would also require additional structural retrofitting to withstand seismic activity, including the replacement of upper and lower sway braces, sash braces, and all of the bolts. Appendix G to this document describes the Retrofit Alternative in detail.

Figure 6-1 is an architectural rendering based on the retrofit feasibility study (CH2M HILL, 2012a), showing the concrete deck and metal railing on top of the repaired timber substructure. If bridge retrofit is selected as the preferred alternative, then additional refinements could be made. Architectural and aesthetic treatments could be reconsidered based on community input, and it may be possible to more closely mimic the existing trestle. However, conformance with contemporary bicycle and pedestrian safety standards is likely to limit the City's ability to sustain the appearance of the existing trestle in a form the community

expects. This will be evident mostly with regard to the bridge deck and railing system, as the existing trestle is transformed from its original purpose – carrying rail cars – to support bicycle and pedestrian use.

FIGURE 6-1
Retrofit Alternative



The expected lifespan of the repaired trestle would be 30 to 50 years with regular maintenance (CH2MHILL, 2012a). The repaired trestle would continue to require periodic maintenance as the original timbers will continue to decompose. Although the retrofit plan would repair existing problems, the older portions of the structure will continue to deteriorate, and at a faster rate than the repaired areas. This results in components needing to be replaced on somewhat regular intervals. In order to document conditions and program future repair needs, the bridge would be inspected once every 2 years. Environmental permits would be secured for future repair projects as needed. At some point, the cost to maintain the bridge may become very high.

The existing trestle has been the subject of multiple arson attempts as documented by San José Fire Department records. To reduce the potential for damage caused by fire, maintenance of the bridge would include (but would not be limited to) the following:

- Decayed wood would be cut off at the ends of exposed timbers, provided that structural integrity is not compromised.
- Vegetation would be cleared for a distance of at least 25 feet from the bridge, both underneath and on the embankment at the ends of the bridge or trestle.
- Creek flow debris would be cleared from the piers after storms. Large wood fragments would be cut into smaller, unobstructive pieces and left in place (at least 25 feet from the bridge).

Over time, it is likely that the combined effect of the retrofit work, along with subsequent repair and fire prevention activities, will limit the City's ability to sustain the appearance of the existing trestle substructure.

Due to difficult access from the banks for equipment, maintenance activities may require the use of equipment that can reach over the edge of the bridge deck to clear debris from the streambed. Large pieces, such as logs and trees, can be cut by workers below to make the pieces more manageable. Debris clearance may require access to the streambed area using small rented equipment such as a compact loader with grappler arms. Maintenance access to the streambed would require additional brush clearing and ground disturbance, and environmental permits would be secured as needed. Streambed maintenance activities are expected to be required at least once annually.

To facilitate construction of the Retrofit Alternative and to make periodic repairs, equipment would be required to work within Los Gatos Creek. Small cofferdams would be constructed around piling requiring repairs to allow construction activities to occur in dry conditions. Regulatory permits that would be required for the Retrofit Alternative would be the same as those required for the proposed project, listed in Section 2.4. The permits that have been issued for the proposed project would not allow construction of the Retrofit Alternative; new permits would be required.

Completion of the retrofit project is expected to require 5 months of construction, approximately the same as the proposed project. Construction would begin and end in accordance with regulatory permit restrictions for construction activities. Use of the retrofitted trestle for bicycles and pedestrians would be the same as the proposed project. Unlike the proposed project, occasional bridge closures may be needed during larger maintenance activities, to undertake future retrofit projects, and to repair fire damage.

6.2.2 No Project Alternative

CEQA requires an EIR to include a no project alternative. CEQA Guidelines Section 15126.6(e)(2) states that, "The 'no project' analysis shall discuss …what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." Under the No Project Alternative, the City would not replace the Los Gatos Creek Trestle. The existing trestle would remain fenced off from public access for safety reasons, and the planned trail projects would be rerouted. Future trail users on the Three Creeks and Los Gatos Creek Trail systems likely would cross Los Gatos Creek along Lincoln Avenue, using Coe Avenue and Lonus Street for access – more than twice the distance along streets requiring sidewalk and on-street travel.

The existing trestle has been the subject of multiple arson attempts as documented by San José Fire Department records. To reduce the potential for damage caused by fire, maintenance of the bridge would include (but would not be limited to) the following:

- Decayed wood would be cut off at the ends of exposed timbers, provided that structural integrity is not compromised.
- Vegetation would be cleared for a distance of at least 25 feet from the bridge, both underneath and on the embankment at the ends of the bridge or trestle.
- Creek flow debris would be removed from the piers after storms. Large wood fragments would be cut into smaller, unobstructive pieces and left in place (at least 25 feet from the bridge).

In addition to reducing fire risk, clearance of accumulated storm debris is necessary to reduce the danger of flooding in winter. City-owned equipment cannot safely use the existing structure during clearance operations, so the work would need to be done using small rented equipment (such as a compact loader with grappler arms) or by hand. Large pieces of debris, such as logs and trees, can be cut by workers to make the pieces more manageable. This maintenance is expected to be required at least once a year.

The trestle would be inspected once every 2 years to document conditions. Additional condition assessments may be performed after events such as a major fire or flood. Heavily damaged portions of the trestle are likely to be removed (not repaired) if they are in danger of collapse, based on determination by the City Engineer and subject to securing applicable permits.

6.3 Comparative Analysis of Alternatives

Sections 6.3.1 through 6.3.13 of this EIR present a detailed description of the environmental effects of the proposed project compared to existing environmental conditions, and for comparative purposes to the proposed project. A table in the Executive Summary of this document summarizes the key findings of this section.

6.3.1 Retrofit Alternative

6.3.1.1 Aesthetics

As discussed in Section 3.1.3, the project area may be considered to be a scenic vista. The Retrofit Alternative would include replacing the existing deck with a concrete deck, installing a new 54-inch galvanized metal railing, and making structural modifications to the existing trestle. These modifications would change the appearance of the existing trestle (see Figure 6-1). The recreational and aesthetic amenities that are part of the proposed project would likely also be incorporated into the Retrofit Alternative, pending final design. These include interpretive signs and the elements that recall railway operations. Because the existing trestle has been the target of arson attempts, vegetation would be maintained at low level for at least 25 feet on either side of the bridge.

Like the proposed project, the Retrofit Alternative would give the general public access to the bridge and make views from the bridge available. In views toward the bridge, the Retrofit Alternative would look somewhat similar to the existing trestle except for the concrete deck, safety railing, and loss of vegetation on either side of the bridge. Because of the similar appearance, impacts would be less than significant.

Similar to the proposed project, the Retrofit Alternative would only be visible to trail users. Views from the project area would be available from the bridge. Views toward the project area would be available from the proposed Los Gatos Creek Trail Reach 4. Because of the dense vegetation along the corridor and the orientation of nearby houses, neither the existing trestle nor the Retrofit Alternative would be visible from nearby residences.

Visual character is evaluated by considering the form, line, color, texture, dominance, scale, diversity, and continuity of the existing project area and comparing it to that of the Retrofit Alternative. The substructure of the bridge would remain substantially the same as that of the existing trestle, but the superstructure would be changed with the addition of a concrete deck and a more substantial metal railing. Overall, the Retrofit Alternative would cause a less than significant impact on the visual character of the trestle, and would alter the visual character of the trestle to an incrementally lesser degree than the proposed project, which also has less than significant visual impacts.

Visual quality is evaluated by identifying the vividness, intactness, and unity present in the existing project area and comparing it to that of the Retrofit Alternative. Because the substructure would not be substantially altered, the Retrofit Alternative would more or less maintain the visual quality of the existing trestle. A key exception would be the permanent clearing of vegetation for 25 feet on either side of the bridge, which has the potential to somewhat reduce the vividness of the view. Overall, like the proposed project, the Retrofit Alternative would create less than significant impacts on visual quality. Overall, the Retrofit Alternative would cause a less than significant impact on visual character and quality.

The Retrofit Alternative would not include any lighting and, therefore, would not adversely affect day or nighttime views in the area. Construction would occur during daylight hours and would not require night lighting and would, therefore, have no impact in terms of light or glare.

6.3.1.2 Air Quality

Construction activities associated with the Retrofit Alternative would occur for approximately 5 months. Construction of the Retrofit Alternative would cause temporary minor increases in ambient air pollutant concentrations. Given that construction activities would be temporary, long-term impacts would not occur.

Construction emissions have been estimated using CalEEMod and are summarized in Table 6.3-1. The estimated construction emissions would be below BAAQMD thresholds, as shown in the table.

TABLE 6.3-1
Project Construction Emissions and Comparisons to 2010 BAAQMD CEQA Thresholds

	ROG (lb/day)	CO (lb/day)	NOx (lb/day)	SO_2 (lb/day)	PM_{10} Exhaust (lb/day)	$PM_{2.5}$ Exhaust (lb/day)	PM_{10} Fugitive Dust (lb/day)	$PM_{2.5}$ Fugitive Dust (lb/day)
2015 (Maximum Daily)	2.89	16.7	27.8	0.029	1.52	1.43	0.95	0.19
BAAQMD 2010 Threshold (Daily Average Emissions, lb/day)	54	None	54	None	82	54	BMP	BMP
Exceed BAAQMD CEQA Threshold?	No	NA	No	NA	No	No	No	No

Notes:

Thresholds are from BAAQMD CEQA Guidelines (BAAQMD, 2010b).

NA = not applicable

Construction emissions would be below the BAAQMD-proposed CEQA thresholds, and the construction emissions would be lower than those for the proposed project due to fewer construction activities. Similar to the proposed project, the Retrofit Alternative would not cause a change to the ongoing maintenance activities of the area. Therefore, no emission increases are expected once the Retrofit Alternative construction is completed. Because the Retrofit Alternative would not violate any air quality standard or contribute substantially to an existing or projected air quality violation, it would have less than significant impacts.

6.3.1.3 Biological Resources

The Retrofit Alternative would have short term-impacts on biological resources during temporary construction activities to retrofit the structural components of the existing bridge, including diverting the stream to create dry working conditions and removing understory vegetation. Special-status species including listed salmonids, western pond turtle, and migratory birds would also be affected temporarily. Over time, additional short-term impacts would occur from periodic repairs to the older portions of the structure that continue to deteriorate. In addition, there would be long-term fishery impacts from annual maintenance of the creek to remove storm debris. When instream wood that has collected on the trestle piers is cut into smaller pieces, this would have a negative impact on fish habitat downstream because shorter wood pieces are less likely to collect in stable clusters to provide pool scour, fastwater feeding areas at heads of pools, and fish refugia from predators and winter stormflows downstream of the trestle. The trestle would hinder the natural dispersal of large wood downstream; this is a long-term adverse impact on steelhead and Chinook salmon habitat. In addition, several mature trees within 25 feet of the trestle that provide shaded riverine habitat for steelhead and Chinook salmon would be removed to maintain annual vegetation clearance for fire suppression, and additional vegetation clearing is expected to occur in order for small equipment to access the streambed area for maintenance. The removal of shaded riverine habitat would increase water temperatures in the project area, creating unsuitable habitat conditions for steelhead and Chinook salmon. This vegetation removal would be viewed as a long-term adverse impact on steelhead and Chinook salmon habitat.

The City would follow Santa Clara Valley Habitat Plan Condition 5 – Avoidance and Minimization Measures for In-Stream Operations and Maintenance to minimize impacts on aquatic resources and riparian habitat onsite during maintenance activities of the floodplain after large storm events. To reduce these short-term

impacts to a level below significant during bridge repairs, the City would follow the Standard Project Conditions and the Santa Clara Valley Habitat Plan Conditions listed in Section 3.3.

6.3.1.4 Cultural Resources

As described in Section 3.4, no known archaeological or historical resources occur at the project site; therefore, there would be no impacts on existing historical or archaeological resources under the Retrofit Alternative. This includes the existing trestle itself, which does not meet the criteria to be considered a historical resource (see Section 3.4 and Appendix F). There is still potential for unknown subsurface archaeological resources to be disturbed in the project area as a result of construction to retrofit the trestle, and these impacts would be the same as described in the proposed project (see Section 3.4 for more information). Impacts would, therefore, be less than significant with mitigation measures and Standard Project Conditions implementation, as described in Section 3.4.

6.3.1.5 Energy

Energy consumption under the Retrofit Alternative would be similar to the proposed project. Energy would primarily be expended by heavy equipment during the construction phase of the Retrofit Alternative. Some energy savings may be realized by avoiding the need to transport a bridge that has been fabricated offsite. Once constructed, a negligible amount of energy would be expended by the use of fossil fuels for maintenance vehicles and equipment to access the project site. Therefore, impacts would be less than significant.

6.3.1.6 Geology and Soils

If the bridge is retrofitted, the resistance to structural collapse from a seismic event becomes negligible due to mitigation through engineered design of the structure. Under the Retrofit Alternative, the existing trestle piers remaining in the streambed would be subject to up to 4 feet of scour erosion during 100-year flood events. Scour would not cause the potential for the bridge to become unstable, and the impact would be less than significant.

6.3.1.7 Greenhouse Gases

The Retrofit Alternative would consist of the reuse and repair of the existing Los Gatos Creek Trestle. Construction activities associated with the Retrofit Alternative would occur for approximately 5 months, beginning in July 2015. Estimated GHG emissions for the Retrofit Alternative and comparisons to the state GHG inventory and AB 32 GHG reduction goal are presented in Table 6.3-2.

TABLE 6.3-2
Project Construction Greenhouse Gas Emissions

	CO_2 (million metric tons)
2015 Emissions	0.000104
2007 BAAQMD Inventory	95.8
2010 State Inventory	448.11
State GHG Goal 2020 (AB 32)	427

Note:
The emissions of N_2O and CH_4 from construction were not included in the calculations. Emissions of N_2O and CH_4 from combustion sources are minimal, approximately less than 2 percent of the CO_2 emissions (this includes adjusting to CO_2 equivalent emissions). Only CO_2 emissions were calculated and reported for each of the emission sources.

GHG emissions from the retrofit construction would be temporary and negligible compared to the local and state GHG inventory. The minimal GHG emissions during the construction period would not contribute substantially to the regional GHG emission inventory or contribute to global climate change. Similar to the proposed project, the Retrofit Alternative would not cause a change to the ongoing maintenance activities

of the area, and no emission increases are expected once the Retrofit Alternative construction is completed. Therefore, the Retrofit Alternative would result in a less than significant impact from GHG emissions.

6.3.1.8 Hazards and Hazardous Materials

Under the Retrofit Alternative, though the majority of the bridge structure would remain, some amount of treated wood would be removed and require disposal. The handling and disposal of treated wood waste would be in accordance with regulations promulgated by DTSC. Additionally, Standard Project Conditions would be followed to reduce impacts; therefore, impacts on hazards and hazardous materials would be less than significant.

6.3.1.9 Hydrology and Water Quality

The Retrofit Alternative would not achieve the beneficial effects of trestle removal (see proposed project analysis in Section 3.9). Backwater conditions during large storms would remain unchanged from existing conditions and would be exacerbated as a result of debris buildup. Additionally, accumulated debris has the potential to detach from the trestle piers in large masses in uncontrolled conditions during a major flood event. There would be no impact because the Retrofit Alternative would be the same as existing conditions. Potential water quality impacts would be reduced to a less than significant level with the implementation of Standard Project Conditions included in Section 3.3, Biological Resources.

Additionally, similar to the proposed project, use of the retrofitted bridge could cause impacts on water quality in Los Gatos Creek and Guadalupe River due to increased trash, litter, and dumping. To reduce water quality impacts to a level below significant, the City would follow the measures listed in HYDRO-1 and continue maintaining the creek channel in accordance with NPDES Permit No. CAS612008.

6.3.1.10 Land Use

The Retrofit Alternative would be consistent with the General Plan since the retrofitted trestle would allow for the trail to operate pursuant to the General Plan land use designation. The Retrofit Alternative also is consistent with the General Plan goals and policies identified in Section 3.10, in that it promotes San José as a bicycling and pedestrian-friendly community, with a safe, accessible, and well-functioning trail network.

The Retrofit Alternative would require higher operation and maintenance costs than the proposed project and, therefore, would not be fully consistent with the General Plan goals and policies regarding fiscally sustainable public infrastructure. The Retrofit Alternative also may pose greater environmental risks, which may not be fully consistent with General Plan goals and policies regarding environmental contamination, and wildland and urban fire hazards. In addition, occasional bridge closures may be needed during larger maintenance activities, to undertake future retrofit projects, and to repair fire damage. For these reasons, the Retrofit Alternative is less consistent with the General Plan than the proposed project.

Additionally, the Retrofit Alternative would be consistent with the Green Vision and the Three Creeks Trail Master Plan. Since both plans emphasize creating safe bike and pedestrian trails, the Retrofit Alternative would be consistent with their goals, although occasional bridge closures may be needed. Overall, impacts under the Retrofit Alternative would be less than significant.

6.3.1.11 Noise

The Retrofit Alternative would result in similar noise-related impacts as discussed for the proposed project, with the exception of pile-driving noise that would not occur. Operations and maintenance would continue in the future to check that the bridge is functioning in accordance with standard City practices. Because this alternative repairs existing problems, older portions of the structure would continue to deteriorate in the future, leading to additional maintenance and repair, and associated temporary construction noise in the future. Therefore, impacts under the Retrofit Alternative would be less than significant.

6.3.1.12 Transportation and Traffic

The Retrofit Alternative would result in similar transportation-related impacts as discussed for the proposed project. It is estimated that the Retrofit Alternative would generate approximately 30 daily trips, with a peak

of up to 46 trips per day. Similar to the proposed project, this alternative would result in a temporary and minimal increase in traffic compared to existing volumes. When the bridge is operational, bridge closures may be needed during larger maintenance activities, to undertake future retrofit projects, and to repair fire damage. These occasional closures would require trail users to take alternate routes across Los Gatos Creek, or would otherwise discourage trail use. For these reasons, the Retrofit Alternative is less consistent with General Plan transportation and trail network goals than the proposed project. Overall, impacts on traffic and transportation under the Retrofit Alternative would be less than significant.

6.3.1.13 Utilities and Public Services

Under the Retrofit Alternative, construction activities would generate some waste, but the quantity would be less than the proposed project, and would be less than significant. All treated wood that would be removed would be handled in accordance with DTSC guidelines, and OSHA protocols would also be followed during construction to avoid affecting any surrounding facilities. Therefore, impacts on utilities and public services under the Retrofit Alternative would be less than significant.

6.3.2 No Project Alternative

6.3.2.1 Aesthetics

The No Project Alternative would produce no visual change in the project area and, thus, would have no visual impacts.

6.3.2.2 Air Quality

The No Project Alternative would require no direct construction activities at the trestle site. Ongoing maintenance activities would continue under the No Project Alternative, but would be very infrequent and would not generate air pollutants at a sustained level. Because the No Project Alternative would not cause a short-term or long-term emissions increase, no impacts are expected. Compared to the proposed project, the lost potential of an interconnected pair of trail systems (Three Creeks Trail and Los Gatos Creek Trail) limits opportunities for alternative transportation. Annual trail counts conducted by the City of San José show a continually increasing use of trails. The trail linkage from Willow Glen to Downtown San José has potential to support a mode shift from car to bike travel and associated air quality benefits, but that opportunity would not be realized under the No Project Alternative.

6.3.2.3 Biological Resources

The No Project Alternative would have less than significant short-term impacts on biological resources during annual maintenance of storm debris because the creek would not need to be diverted and streambed disturbance would be limited to personnel using hand-powered equipment and potentially small construction vehicles such as Bobcats. There would be long-term fishery impacts from annual maintenance of the creek to remove storm debris. When instream wood that has collected on the trestle piers is cut into smaller pieces, this would have a negative impact on fish habitat downstream, because shorter wood pieces are less likely to collect in stable clusters to provide pool scour, fastwater feeding areas at heads of pools, and fish refugia from predators and winter stormflows downstream of the trestle. The trestle would hinder the natural dispersal of large wood downstream; this would have a long-term adverse impact on steelhead and Chinook salmon habitat. There would be no impact because there would be no change to existing conditions.

6.3.2.4 Cultural Resources

Under the No Project Alternative, there would be no change to the current state of the Los Gatos Creek Trestle, with the exception of occasional trestle maintenance. As described in Section 3.4, no known archaeological or historical resources occur at the project site. This includes the existing trestle, which does not meet the criteria to be considered a historical resource (see Section 3.4 and Appendix F). Therefore, there would be no impacts on existing historical or archaeological resources under this alternative. There is still potential for unknown subsurface archaeological resources to be disturbed in the project area as a

result of occasional maintenance, but subsurface excavation is not likely to occur under the No Project Alternative. Therefore, there would be no impacts on cultural resources.

6.3.2.5 Energy

Under the No Project Alternative, energy consumption would be required for continued upkeep of the existing bridge for safety reasons, likely requiring use of light trucks and small construction equipment for vegetation removal and similar activities. Other than these occasional maintenance activities, there would be no additional needs for energy or fuel consumption under the No Project Alternative. Therefore, impacts would be less than significant.

6.3.2.6 Geology and Soils

Under the No Project Alternative, the condition of the existing wooden trestle would deteriorate over time to a point that the existing structure would be at risk of collapsing. This could occur due to a seismic event, high winds, or failure under its own weight. The risk of being affected from seismic activity is an impact related to geologic conditions. Impacts on or from soil or geology for the No Project Alternative are otherwise negligible and would be less than significant.

6.3.2.7 Greenhouse Gases

Under the No Project Alternative, the City would not replace the Los Gatos Creek Trestle. The existing trestle would remain fenced off from public access for safety reasons, and the planned trail projects would be rerouted. The No Project Alternative would not require construction activities at the trestle site, and the ongoing maintenance activities would continue during operation. Therefore, GHG emission increases are not expected. Because the No Project Alternative would not cause short-term or long-term emissions increase of GHGs, it would have no direct GHG impacts. Compared to the proposed project, the lost potential of an interconnected pair of trail systems (Three Creeks Trail and Los Gatos Creek Trail) limits opportunities for alternative transportation. Annual trail counts conducted by the City of San José show a continually increasing use of trails. The trail linkage from Willow Glen to Downtown San José has potential to support a mode shift from car to bike travel and associated GHG benefits, but that opportunity would not be realized under the No Project Alternative.

6.3.2.8 Hazards and Hazardous Materials

The No Project Alternative would result in no changes to existing conditions, and the existing trestle would remain. Hazardous materials would not be routinely used, nor would hazardous materials be emitted; therefore, there would be no impacts to hazards or hazardous materials under the No Project Alternative.

6.3.2.9 Hydrology and Water Quality

The No Project Alternative would result in no changes to existing conditions. There would also be no beneficial changes, specifically the reduced water surface elevation in Los Gatos Creek, upstream of the Los Gatos Creek Trestle. Therefore, impacts under the No Project Alternative would be less than significant.

6.3.2.10 Land Use

The No Project Alternative would be inconsistent with the General Plan, the Green Vision, and the Three Creeks Trail Master Plan. Because the bridge connects the Three Creeks Trail with the Los Gatos Creek Trail, continuing to bar public access to the existing trestle would prevent the use and future development of the trail. Additionally, the No Project Alternative would be inconsistent with the General Plan's designation of Open Space, Parklands, and Habitat, whose defined uses include the designation of permanent trails. Rerouting bicycle and pedestrian traffic to Lincoln Avenue rather than along the trestle alignment would hinder the fulfillment of the Green Vision's 10th goal of creating 100 miles of interconnected trails. The lack of a connection would also lead to two dead-end trail segments from Lonus Avenue and Coe Avenue, which is contrary to Policy TN-2.1 of the General Plan. Therefore, impacts under the No Project Alternative would be significant.

6.3.2.11 Noise

The No Project Alternative would result in no changes to existing conditions. There would be no increase in noise on the surrounding area because no construction would occur. Ongoing maintenance activities would continue under the No Project Alternative, but would be very infrequent and would not generate noise at a sustained level. Therefore, impacts under the No Project Alternative would be less than significant.

6.3.2.12 Transportation and Traffic

The No Project Alternative would result in no changes to existing conditions. There would be no increase in traffic on the surrounding roads because no construction would occur, but there would also be no improvement to the existing bridge and, therefore, no opportunities for pedestrians and bicyclists to use the bridge. The proposed project is a critical link between Three Creeks Trail (Western Alignment) and Los Gatos Trail Reach 4. With the No Project Alternative, this connection between the two trails would not be completed. Therefore, impacts under the No Project Alternative would be significant.

6.3.2.13 Utilities and Public Services

The No Project Alternative would result in no changes to existing conditions and, therefore, there would be no impacts.

6.4 Additional Alternatives Considered

In addition to the No Project Alternative and the Retrofit Alternative, two additional alternatives were considered: a different retrofit option based on a prior engineering study, and a parallel bridge. Both alternatives were suggested during the scoping period. These additional alternatives were considered but were not recommended for detailed consideration, for the reasons described below.

6.4.1.1 Retrofit Alternative (2004)

As discussed in Chapter 1, Introduction, retrofit of the Los Gatos Creek Trestle was originally considered as part of the City's Los Gatos Creek Trail Reach 4 project. The City's environmental impact assessment (City Project No. PP04-014) was prepared by using engineering design drawings prepared by AN West Consulting Engineers. At that time, proposed repairs to the Los Gatos Creek Trestle were limited to removing the existing metal walkways and guy-wire railings, installing a new 10-foot-wide wood or synthetic bridge deck, installing new safety railings, and making repairs to the sash and sway bracing. On the basis of a condition assessment (A-N West, 2004), no repairs to the trestle substructure were proposed.[7] It was suggested that this prior design be analyzed in detail as part of the current environmental impact assessment.

Subsequent to the 2004 evaluation, the City commissioned a more detailed review of the existing trestle's structural integrity (CH2M HILL, 2012b). On the basis of the more detailed review, as well as the passage of time since the 2004 condition assessment, it was determined that more extensive repairs to the trestle were required. For example, the 2004 study found no piles with any rot, whereas the 2012 study found six piles that needed repairs. In addition, the City determined the clear width of the bridge should be 12 feet wide rather than 10 feet in order to meet the safety and width standards already established for the trails project. Although a timber deck was considered initially for the retrofitted bridge (CH2MHILL, 2012a), the City later determined that a concrete deck would better protect the stringers and substructure below the deck level, and would also be less expensive to maintain than a timber deck. These repairs are presented as the Retrofit Alternative (Section 6.2.1), which is being carried forward for detailed consideration. Because the results of the 2012 study confirmed the need for a more extensive retrofit than planned in 2004 and a wider, concrete (not timber) deck, the City is not recommending a return to the prior design. A retrofit alternative based on the 2004 design is not analyzed further in this assessment.

[7] Note that if the City chose to pursue this alternative, it would be fully consistent with the 2004 impact assessment; no further CEQA review would be required for the project to proceed.

6.4.1.2 Parallel Bridge

An alternative was suggested for consideration that would preserve the existing Los Gatos Creek Trestle and construct a new parallel bridge for bicycle and pedestrian use. The existing trestle would continue to be fenced to prevent unauthorized pedestrian use, but no additional retrofit or restoration work would be performed. Some critical maintenance and inspection activities would continue to occur as needed, to make sure the trestle remains stable and to remove accumulated storm debris from the bents as required to reduce the danger of flooding in winter and fires during the summer, similar to the No Project Alternative and Retrofit Alternative. The new parallel bridge would be generally consistent with the proposed project (that is, a single-span steel truss bridge), but would be located either just upstream or downstream rather than on the same alignment of the existing trestle. On the basis of existing site constraints, both downstream and upstream options appear to be feasible with the following varying pros and cons:

- More riparian vegetation would be removed with the downstream option, but vegetation in this area is primarily nonnative trees and shrubs. Although there is less vegetation upstream of the trestle, an upstream parallel bridge would require removal of the largest native tree in the project area.
- The existing sanitary sewer line under the trestle (see Section 3.13) may require relocation, especially with an upstream parallel bridge. Relocation of a large pipeline under Los Gatos Creek would require substantial disruption to the creek channel, and it is not clear if the City owns sufficient right-of-way to accommodate a new pipeline. If it is determined the pipeline can remain in place, an access port located just southwest of the trestle may require relocation due to the location of new bridge abutments.
- Approaches to a parallel bridge on the south side favor the upstream option given relatively gentle bank slopes and the presence of an informal maintenance access path.
- Approaches to a parallel bridge on the north side favor the downstream option given steep slopes on the upstream side, a greater amount of City-owned property, and direct access to the planned Los Gatos Creek Trail.

The downstream alternative is shown on Figure 6-2. Given the technical challenges and costs associated with relocating the sanitary sewer pipeline, the downstream alternative appears to be more feasible if the City had to select one of these options. Both parallel bridge options would require placement of new embankment within the floodplain, including construction of retaining walls and increased use of imported fill. In addition, the permanent disturbance of new terrestrial and aquatic habitat would trigger greater mitigation requirements.

In the long term, this alternative would combine the adverse hydrologic and biological effects of the No Project Alternative with the visual effects of a new bridge (that is, changes to aesthetics and the visual setting). The City's objectives regarding fiscal responsibility would not be met as the City would have responsibility for both the new bridge and the ongoing maintenance costs of retaining the existing trestle. Importantly, designated or eligible historic properties may require detailed consideration of avoidance alternatives, but the existing trestle is not a historic property, as discussed in Section 3.4. Because of the increased impacts and lack of an apparent benefit, this alternative is not being carried forward for detailed consideration.

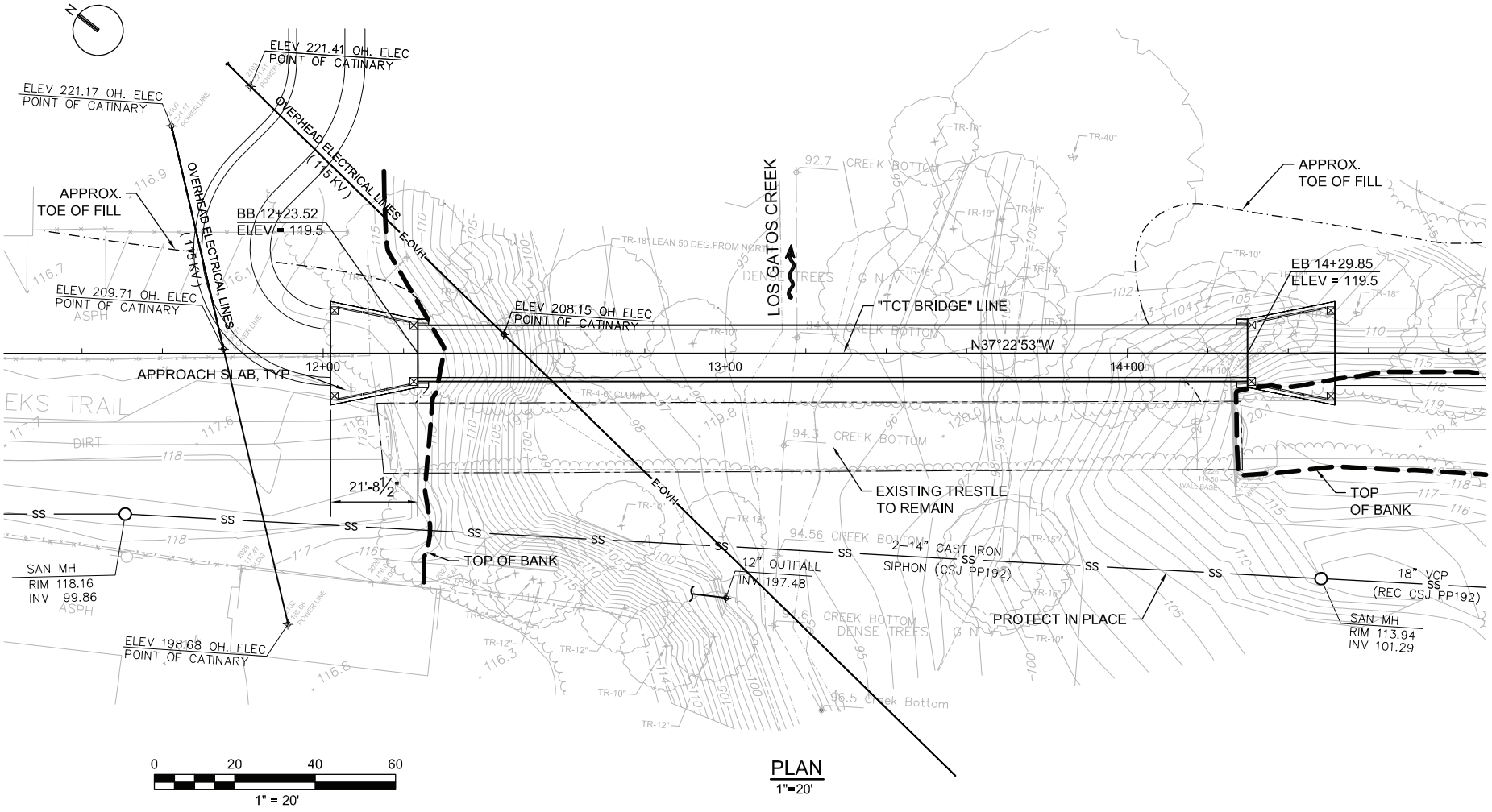


FIGURE 6-2
Parallel Bridge (Downstream Option)
Three Creeks Pedestrian Bridge Project
City of San Jose, CA

CHAPTER 7

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CHAPTER 8

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