DRAFT ENVIRONMENTAL IMPACT REPORT

Fenton Parkway Bridge Project

SCH# 2023050534
April 2024

SDSU | San Diego State University

PREPARED FOR:

THE BOARD OF TRUSTEES OF THE CALIFORNIA STATE UNIVERSITY
401 Golden Shore
Long Beach, California 90802



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DRAFT

Draft Environmental Impact Report

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STATE CLEARING HOUSE NO. 2023050534

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C Biological Resources Technical Report
D Cultural Resources Report
E Paleo Resources Report
F1 Hydrology
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G Noise Report
H Transportation Analysis

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
ACM	asbestos-containing material
afy	acre-feet per year
APE	area of potential effects
ARPA	Archaeological Resources Protection Act
ATCM	Airborne Toxic Control Measure
BMP	best management practice
Btu	British thermal units
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Occupational Safety and Health Administration
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	climate action plan
CARB	California Air Resources Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFR	Code of Federal Regulations
CGP	Construction General Permit
CH_4	methane
CHP	California Highway Patrol
CLOMR	Conditional Letter of Map Revision
CNEL	Community Noise Equivalent Level
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSU	the California State University
CUPA	Certified Unified Program Agency

Acronym/Abbreviation	Definition
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DO	dissolved oxygen
DPM	diesel particulate matter
DTSC	California Department of Toxic Substances Control
EIR	environmental impact report
EISA	Energy Independence and Security Act
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESL	environmental screening level
ESL Regulations	Environmentally Sensitive Lands Regulations
EV	electric vehicle
FE	federally endangered
FESA	federal Endangered Species Act
FHSZ	fire hazard severity zone
FICON	Federal Interagency Committee on Noise
FRAP	Fire Resource and Assessment Program
FTA	Federal Transit Administration
GHG	greenhouse gas
GWP	global warming potential
H_2S	hydrogen sulfide
HAP	hazardous air pollutant
HCP	habitat conservation plan
HERO	Human and Ecological Risk Office
HFC	hydrofluorocarbon
HMBP	hazardous materials business plan
HUC	hydrologic unit code
I	Interstate
IFC	International Fire Code
ips	inches per second
ISTEA	Intermodal Surface Transportation Efficiency Act
kWh	kilowatt-hour
LDC	Land Development Code
L_{dn}	day–night average noise level
L_{eq}	equivalent continuous sound level
LOS	level of service
M	Magnitude
MBTA	Migratory Bird Treaty Act
MHPA	Multi-Habitat Planning Area
MM	Mitigation Measure
MMT	million metric tons
MOU	memorandum of understanding

Acronym/Abbreviation	Definition
MPO	metropolitan planning organization
MS4	Municipal Separate Storm Sewer System
MSCP	Multiple Species Conservation Program
MT	metric ton
MTS	Metropolitan Transit System
MVCP	Mission Valley Community Plan
MVCPU	Mission Valley Community Plan Update
MWD	Metropolitan Water District of Southern California
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NCCP	natural community conservation plan
NCWRP	North City Water Reclamation Plant
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NO_2	nitrogen dioxide
NOP	Notice of Preparation
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O_3	ozone
OHWM	ordinary high water mark
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PEIR	Program Environmental Impact Report
PFC	perfluorocarbon
PFFP	Public Facilities Financing Plan
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to 10 microns
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
ppb	parts per billion
PPV	peak particle velocity
PRC	California Public Resources Code
PUD	Public Utilities Department
RAQS	Regional Air Quality Strategy
RCP	reinforced concrete pipe
RFS	Renewable Fuel Standard
RPS	Renewables Portfolio Standard
RSL	regional screening level
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SB	Senate Bill

Acronym/Abbreviation	Definition
SBWRP	South Bay Water Reclamation Plant
SCIC	South Coastal Information Center
SCS	Sustainable Communities Strategy
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDBG	San Diego Biology Guidelines
SDC	Seismic Design Category
SDCWA	San Diego County Water Authority
SDFD	City of San Diego Fire-Rescue Department
SDG&E	San Diego Gas & Electric Company
SDSU	San Diego State University
SE	state endangered
SF_6	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SLCP	short-lived climate pollutant
SO_2	sulfur dioxide
SO_x	sulfur oxides
SSC	California Species of Special Concern
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TDS	total dissolved solids
TMDL	total maximum daily load
TSM	Transportation Study Manual
TSS	total suspended solids
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
UWMP	urban water management plan
VdB	vibration decibels
VHFHSZ	very high fire hazard severity zone
VMT	vehicle miles traveled
VOC	volatile organic compound
WL	Watch List
WMA	Watershed Management Area
WSA	water supply assessment
WTP	water treatment plant
WUI	wildland–urban interface
WWTP	wastewater treatment plant
ZEV	zero-emission vehicle

ES Executive Summary

This chapter provides a summary of the environmental impact report (EIR) for the proposed Fenton Parkway Bridge Project (project). This summary (a) addresses the purpose of the Draft EIR; (b) summarizes the proposed project's location, setting, and existing uses, project description, and objectives; (c) identifies required permits and/or discretionary approvals; (d) summarizes environmental topics, impacts, mitigation measures, and the level of significance after mitigation in tabular form; (e) describes areas of controversy and issues to be resolved; and (f) summarizes reasonable and feasible alternatives to the proposed project.

ES.1 Document Purpose

This Draft EIR was prepared by the California State University (CSU), which is the State of California acting in its higher education capacity on behalf of San Diego State University (SDSU), one of 23 CSU campuses throughout California. The CSU Board of Trustees is the lead agency responsible for deciding whether to certify the adequacy and completeness of this EIR and approve the proposed project. The purpose of this EIR is to inform decision makers and the public of the potential significant environmental effects associated with the proposed project. This Draft EIR has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970 (California Public Resources Code, Section 21000 et seq.) and CEQA's implementing guidelines (CEQA Guidelines; 14 CCR 15000 et seq.) published by the California Natural Resources Agency. CEQA Guidelines Section 15123 requires that the summary identify each significant impact, recommend mitigation measures, and identify reasonable and feasible alternatives to the proposed project that would avoid or substantially lessen the proposed project's significant physical impacts on the environment. The summary also is required to identify "areas of controversy," including issues raised by public agencies and the public, and the "issues to be resolved," including the choice among alternatives and whether or how to mitigate the identified significant impacts of the proposed project. This executive summary provides the brief summary required by CEQA Guidelines Section 15123.

ES.2 Project Location, Setting, and Existing Uses

The project site is located at coordinates 32.777755, −117.126079 in San Diego, California 92108, in a stretch of the San Diego River basin that runs between the intersection of Camino Del Rio North and Mission City Parkway and the terminus of Fenton Parkway. The project site is located in the northeast portion of the Mission Valley Community within the City of San Diego (see Figure ES-1, Vicinity Map, and Figure ES-2, Mission Valley Community Plan). Regionally, the City of San Diego covers approximately 206,989 acres in southwestern San Diego County, located approximately 17 miles north of the United States/Mexico border. The Mission Valley community is located in the central portion of the San Diego metropolitan area (see Figure ES-2). Specifically, the project site is situated southeast of Fenton Parkway, northwest of the intersection between Mission City Parkway and Camino Del Rio North, east of Interstate (I) 805, west of I-15, and north of I-8. It is approximately 4 miles from downtown San Diego and approximately 3 miles west of the existing SDSU main campus situated along I-8 within the College Area community of the City of San Diego.

Regional access to and from the project site is provided by four major freeways—I-15, I-8, I-805, and State Route 163—accessed via Fenton Parkway, Mission City Parkway, and Camino Del Rio North (see Figure ES-3, Project Site and Surrounding Land Uses). Further, the existing Metropolitan Transit System Green Line is situated north of the project site as shown on Figure ES-1.

The project site is surrounded by major freeways, roadways, existing urban development, and the San Diego River. Higher density multifamily residential land uses are located to the northwest and office/residential spaces are located south of the project site. The San Diego River, part of the City of San Diego's Multiple Species Conservation Program (MSCP) (as further discussed in Section 3.3, Biological Resources), flows directly through the project site. Additional office uses and I-8 are located south of the project site. To the north of the project site is SDSU's Snapdragon Stadium. Further north beyond the stadium is San Diego Fire-Rescue Department Fire Station 45, undeveloped hillsides, and single-family residences situated atop the mesa, within the Serra Mesa planning area. The SDSU campus is located three trolley stops east of the Stadium Trolley Station situated east the project site.

The project site includes land that stretches across the San Diego River, largely consisting of the river and surrounding roadways. Figure ES-3 depicts surrounding land uses including the San Diego River, the future river park (currently under development), residential land uses west of the existing southern terminus of Fenton Parkway, commercial and institutional uses east of the existing southern terminus of Fenton Parkway, the San Diego Trolley and associated Fenton Parkway Station, commercial land uses, and open space and/or undeveloped land south of the San Diego River.

ES.3 Project Description

ES.3.1 Background and Proposed Project

The project would involve construction of a vehicular and pedestrian bridge spanning the San Diego River from north to south (see Figure 2-2, Project Site). The design and construction of the approach roadways and bridge would comply with applicable City of San Diego, County of San Diego, and California Department of Transportation design standards, as well as American Association of State Highway and Transportation Officials guidelines.

The proposed design for the bridge is a conventional prestressed concrete girder structure. This bridge design can be accomplished by two different construction methods, pre-cast or cast-in-place. A pre-cast construction method uses bridge components that are manufactured off site and assembled on site. For a cast-in-place construction method, concrete is poured and cured in forms on site to create a structural element in its final position. Both construction methods were fully analyzed as part of the proposed project and throughout this EIR.

The bridge would be approximately 450 feet long, 58 feet wide, and 7.5 feet deep and would consist of up to four spans. The spans would be supported on concrete seat-type abutments in the river embankments at each end and two to three piers within the river channel, each consisting of two to three approximately 20-foot-tall, 6-foot-diameter circular concrete columns.

Each abutment would be supported on eight 4-foot-diameter, cast-in-drilled-hole concrete piles, and each of the columns would be supported on a single 8-foot-diameter cast-in-drilled-hole concrete pile. Piles are currently estimated to be drilled to depths of between 50 and 200 feet below existing grade. Each of the abutments would be protected with energy dissipating riprap that will be buried to allow for post-construction habitat restoration over the riprap. Allowing this habitat restoration will ensure that post-construction replanting fosters wildlife use following completion of the bridge.

For further information about the proposed project, please refer to Figure ES-4, Concept Design – Site Plan, and Chapter 2, Project Description.

ES.3.2 Project Objectives

The purpose of the project is to meet the needs of the communities north and south of the San Diego River by improving local and regional connectivity. These objectives are informed by and reflect the vision for a Fenton Parkway crossing described in the Mission Valley Community Plan Update (adopted September 2019). The objectives of the project are as follows:

- Construct a multi-modal bridge over the San Diego River to improve north–south mobility in eastern Mission Valley by connecting the existing street network between I-805 and I-15.
- Provide accessible pedestrian and bicycle infrastructure that connects the communities south of the river to public open space and local and regional trail networks north of the river.
- Improve direct connectivity between residential neighborhoods and commercial office centers south of the river and residential, commercial, institutional, and public park lands and recreational amenities north of the river.
- Provide a high-water crossing in eastern Mission Valley.
- Improve emergency access between the communities north and south of the river in the eastern portion of the Mission Valley community, in support of San Diego Fire Department Station 45.
- Support multimodal transit by providing infrastructure to facilitate increased rider access to the Metropolitan Transit System Trolley Green Line and the Fenton Parkway and Stadium Stations, for riders south of the river.
- Minimize temporary and permanent impacts to natural resources (shading, wildlife movement, native plant regrowth, etc.) consistent with the San Diego River Park Master Plan bridge design guidelines.
- Construct the bridge in a manner that minimizes temporary and permanent impacts to sensitive biological resources within the City's Stadium Wetland Mitigation Site.
- Minimize impacts to natural topography and sensitive biological resources.

ES.3.3 Required Permits and/or Approvals

Implementation of the proposed project would require permits and discretionary approvals as shown in Table ES-1. Discretionary approvals would include certification of the Final EIR under CEQA and approval of the proposed project by the CSU Board of Trustees.

Table ES-1. Project Approvals

Authorizing Jurisdiction or Agency	Action
The California State University Board of Trustees	
Certification of the Final EIR under CEQA	Certification
City of San Diego	
Multiple Species Conservation Program	Consistency Finding
Various easements, including vacations, replacements, etc.	Approval
City of San Diego Transportation Department	
Permits to construct within the City's rights-of-way	Approval

Table ES-1. Project Approvals

Authorizing Jurisdiction or Agency	Action
City of San Diego Department of Real Estate and Airport Management	
Temporary access/right of entry permits for work on City-owned land within the river and for the use of staging areas southeast of the Camino Del Rio North/Mission City Parkway intersection	Approval
San Diego County Air Pollution Control District	
Authority to construct/permits to operate	Approval
San Diego Metropolitan Transit System & California P.U.C.	
Coordination for three-way signal at the Fenton Parkway and River Park Road intersection	Approval
Right of access permit for work within the Metropolitan Transit System right-of-way	Approval
San Diego Regional Water Quality Control Board	
Water Quality Certification pursuant to Section 401 of the Clean Water Act	Approval
Construction Stormwater Permit consistent with the National Pollutant Discharge Elimination System to ensure consistency with the Clean Water Act	Approval
California Department of Fish and Wildlife	
Lake and Streambed Alteration Agreement pursuant to Section 1602 of the State of California Fish and Game Code	Approval
Biological Opinion and Incidental Take Statement under Section 7 of the Endangered Species Act	Approval
U.S. Army Corps of Engineers	
Department of the Army permit pursuant to Section 404 of the Clean Water Act	Approval

ES.4 Summary of Environmental Impacts and Mitigation Measures

Table ES-2 provides a summary of the potential significant environmental impacts expected to result from the proposed project pursuant to the CEQA Guidelines Section 15123(b)(1). For more detailed discussion, please see Chapter 3 of this EIR. Table ES-2 also lists the applicable mitigation measures related to the identified significant impacts, as well as the level of significance after mitigation is identified. The initial study prepared and circulated with the Notice of Preparation (NOP) for this EIR (see Appendix A of the Draft EIR) determined that the proposed project would not result in significant impacts to agriculture and forestry resources, mineral resources, population and housing, and public services. As a result, these topics were not addressed in the Draft EIR and are therefore not included in Table ES-2.

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Aesthetics			
Would the project have a substantial adverse effect on a scenic vista?	Less than significant	N/A	Less than significant
Would the project substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Less than significant	N/A	Less than significant
In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Less than significant	N/A	Less than significant
Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less than significant	N/A	Less than significant
Would the project have a cumulative effect on aesthetic resources?	Less than significant	N/A	Less than significant

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Air Quality			
Would the project conflict with or obstruct implementation of the applicable air quality plan?	Less than significant	N/A	Less than significant
Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	Less than significant	N/A	Less than significant
Would the project expose sensitive receptors to substantial pollutant concentrations?	Potentially Significant	**MM-AQ-1 Tier 4 Final Construction Equipment.** Prior to the commencement of any construction activities, the applicant or its designee shall provide evidence to the San Diego State University (University) that for off-road equipment with engines rated at 25 horsepower or greater, no construction equipment shall be used that is less than Tier 4 Final. An exemption from these requirements may be granted by the University if the applicant documents that equipment with the required tier is not reasonably available and equivalent reductions in PM10 exhaust emissions are achieved from other construction equipment. Before an exemption may be considered by the University, the applicant shall be required to demonstrate that three construction fleet owners/operators in the San Diego Region were contacted and that those owners/operators confirmed Tier 4 equipment could not be located within the San Diego region. The University shall review the exemption request and provide a determination within 10 business days from receipt of the request.	Less than Significant

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less than significant	N/A	Less than significant
Would the project have a cumulative effect on air quality resources?	Less than significant	N/A	Less than significant
Biological Resources			
Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the MSCP or other local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Potentially Significant	**MM-BIO-1 Listed Species Take Avoidance.** Based on observations of least Bell's vireo (Vireo bellii pusillus), riparian habitat on site is considered occupied. Southwestern willow flycatcher (Empidonax traillii extimus) and coastal California gnatcatcher (Polioptila californica californica) are not currently occupying the proposed impact areas; however, there is suitable habitat within the project site for these species. Habitat impacts will be mitigated at a 3:1 mitigation ratio as specified in MM-BIO-2 or as determined through the consultation process with U.S. Fish and Wildlife Service (USFWS) (if required). Take authorization may be obtained through the federal Section 7 Consultation or Section 10 and state 2081 incidental take permit requirements. California State University/San Diego State University or its designee shall comply with any and all conditions, including pre-construction surveys, that USFWS and/or California Department of Fish and Wildlife may require for take of these species pursuant to the federal Endangered Species Act and/or California Endangered Species Act. To avoid take of least Bell's vireo and/or southwestern willow flycatcher, seasonal avoidance or pre-construction surveys will be conducted as follows unless USFWS authorizes a deviation from those protocols: 1. Clearing and grubbing in or within 500 feet (152.40 meters) of least Bell's vireo habitat will occur from September 16 (or sooner if a USFWS-approved project biologist demonstrates to the satisfaction of the USFWS and U.S. Army Corps of Engineers	Significant and Unavoidable

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		[Agencies] that all nesting is complete) to March 14 to avoid the least Bell's vireo breeding season. If project construction cannot be restricted to outside of the vireo breeding season, construction noise monitoring will be provided as detailed below. 2. To minimize potential adverse impacts to least Bell's vireo from construction-related noise, construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) within 500 feet of occupied habitat will be timed to occur outside of the breeding season if possible. If construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) within 500 feet of occupied habitat must occur during the breeding season, construction-related noise within the occupied habitat areas will not exceed 60 A-weighted decibels (dBA) equivalent continuous sound level (L_{eq}) (1 hour) or pre-construction ambient noise levels, whichever is greater, during the breeding season, when feasible. To the extent feasible, on-site noise reduction techniques shall be implemented to minimize construction noise levels so they do not exceed 60 dBA L_{eq} hourly equivalent noise level or the ambient noise level, whichever is higher at the nest location. If there are signs of disturbance, noise reduction techniques shall be implemented and may include constructing a sound barrier, utilization of quieter equipment, adherence to equipment maintenance schedules, installation of temporary sound barriers, or shifting construction work further from the nest. 3. To the extent feasible, construction noise levels at a least Bell's vireo nest will be kept below 60 dBA L_{eq}, or pre-construction ambient noise levels, whichever is higher, from 5:00 a.m. to 11:00 a.m. during the peak nesting period of March 15–September 15, for the least Bell's vireo. For the balance of the day/season, the noise levels at the nest will not exceed 60 dBA	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		averages, or pre-construction ambient noise levels (whichever is higher), over a 1-hour period on an A-weighted dBA (i.e., 1 hour L_{eq}/dBA). 4. The USFWS-approved project biologist will be on site during initial clearing and grubbing of least Bell's vireo habitat and construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) within 500 feet (152.40 meters) of least Bell's vireo habitat, to ensure compliance with all conservation measures. The project biologist will be familiar with the habitats, plants, and wildlife along the San Diego River to ensure that issues relating to biological resources are appropriately and lawfully managed. The project biologist will perform the following duties: a. Perform a minimum of three surveys, on separate days, to determine the presence of least Bell's vireo nest building activities, egg incubation activities, or brood rearing activities within 500 feet (152.40 meters) of construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) proposed during the least Bell's vireo breeding season. The surveys will begin a maximum of 7 days prior to project construction and one survey will be conducted the day immediately prior to the initiation of work. Additional surveys will be done once a week during project construction in the breeding season. These additional surveys may be suspended as approved by the Agencies. The Applicant will notify the Agencies at least 7 days prior to the initiation of surveys and within 24 hours of locating any vireo. b. If an active least Bell's vireo nest is found within 500 feet (152.40 meters) of construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities), the project biologist shall	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		flag and map the nest location and 500-foot avoidance buffer on the construction plans and provide the information to the construction supervisor and any personnel working near the nest buffer. A qualified biological monitor shall monitor the nest(s) for any signs of disturbance. Any signs of disturbance to the bird shall be documented, and noise reduction techniques triggered if applicable. To the extent feasible, on-site noise reduction techniques shall be implemented to ensure that construction noise levels do not exceed 60 dBA L_{eq} or the ambient noise level, whichever is higher at the nest location. If there are signs of disturbance, noise reduction techniques shall be implemented and may include constructing a sound barrier or shifting construction work further from the nest. c. Be on site during all construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) in least Bell's vireo habitat to be impacted or within 500 feet (152.40 meters) of least Bell's vireo habitat to be avoided. d. Halt work, if necessary, and confer with the Agencies to ensure the proper implementation of species and habitat protection measures. The project biologist will report any violation to the Agencies within 24 hours of its occurrence. e. Submit weekly letter reports (including photographs of impact areas) via regular or electronic mail (email) to the Agencies during clearing of vireo habitat and/or project construction within 500 feet (152.40 meters) of avoided habitat. The weekly reports will document that authorized impacts were not exceeded, document any project-related activities within 500 feet (152.40 meters) of active least Bell's vireo nests, and document general compliance with all conditions. The reports will also	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		outline the duration of vireo monitoring, the location of construction activities, the type of construction that occurred, and equipment used. These reports will specify numbers, locations, and sex of vireos (if present); observed vireo behavior (especially in relation to construction activities); and remedial measures employed to avoid, minimize, and mitigate impacts to vireos. Raw field notes should be available upon request by the Agencies. f. Submit a final report to the Agencies within 60 days of project completion that includes as-built construction drawings with an overlay of habitat that was impacted and avoided, photographs of habitat areas that were to be avoided, and other relevant summary information documenting that authorized impacts were not exceeded and that general compliance with all conditions of this biological opinion was achieved. Measures to protect coastal California gnatcatcher are outlined in MM-BIO-3. Documentation: A Biological Opinion and Incidental Take Permit shall be issued by USFWS and the California Department of Fish and Wildlife prior to clearing and grubbing of habitat within the San Diego River. Timing: Prior to approval of any grading plans and issuance of any grading or construction permits. Monitoring: The USFWS-approved project biologist will be on site during the activities specified in condition 4 above. Reporting: Submit a final report to the Agencies within 60 days of project completion as described in condition 4(f) above. MM-BIO-2 Habitat Mitigation. Temporary and permanent impacts to southern cottonwood–willow riparian forest will be mitigated at a 3:1 mitigation ratio, and those to non-vegetated channel will be mitigated at	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		a 1:1 or 2:1 mitigation ratio, as determined during the permitting process (see MM-BIO-17). Additionally, temporary and permanent impacts to Baccharis-dominated Diegan coastal sage scrub and restored Diegan coastal sage scrub shall be mitigated at a minimum of 1.5:1 mitigation ratio. Conservation of habitat shall be by land acquisition, off-site creation and/or enhancement, and/or purchase of appropriate credits at an approved mitigation bank in San Diego County. If required, any invasive plant removal shall be completed using hand equipment, and removal will be completed outside of the nesting bird season. If invasive removal cannot be completed outside of the nesting bird season, pre-work surveys shall be conducted per the nesting bird survey noted in MM-BIO-6. If off-site creation and/or enhancement is done, the California State University/San Diego State University or its designee shall prepare a conceptual mitigation plan outlining the enhancement/restoration of these communities and implement the plan, including monitoring and maintenance, for a period of at least 5 years. The conceptual mitigation plan shall be reviewed and approved by City of San Diego, including PUD and MSCP reviewers. If applicable, the mitigation land would be managed by an approved land manager through a non-wasting endowment. The mitigation habitat shall be appropriate habitat for special-status amphibians, reptiles, mammals, invertebrates, and birds with potential to occur on site. Documentation: The mitigation plan and/or proof of purchase of credits from a mitigation bank shall be provided to the City of San Diego, Wildlife Agencies (U.S. Fish and Wildlife Service and California Department of Fish and Wildlife), Regional Water Quality Control Board, and U.S. Army Corps of Engineers. Timing: Prior to approval of any grading plans and issuance of any grading or construction permits. **MM-BIO-3 Coastal California Gnatcatcher Survey.** Suitable habitat for coastal California gnatcatcher shall not be cleared between February 15	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		and August 31 (or sooner if a biologist demonstrates to the satisfaction of the U.S. Fish and Wildlife Service that all nesting is complete). Prior to the initiation of vegetation clearing activities outside of the nesting season, a biologist will perform a minimum of three focused surveys, on separate days, to determine the presence of gnatcatchers in the project impact footprint and suitable habitat within 500 feet of the impact area where access is granted. Surveys will begin a maximum of 7 days prior to performing vegetation clearing/grubbing and one survey will be conducted the day immediately prior to the initiation of clearing/grubbing. If any gnatcatchers are found within the project impact footprint, the biologist will direct construction personnel to begin vegetation clearing/grubbing in an area away from the gnatcatchers. It will be the responsibility of the biologist to ensure that gnatcatchers are not in the vegetation to be cleared/grubbed by flushing individual birds away from clearing/grubbing. The biologist will also record the number and location of gnatcatchers disturbed by vegetation clearing/grubbing. Documentation: The biologist shall submit a 15-day notification letter to the U.S. Fish and Wildlife Service prior to conducting the surveys. Timing: Surveys will begin a maximum of 7 days prior to performing vegetation clearing/grubbing and one survey will be conducted the day immediately prior to the initiation of clearing/grubbing. Reporting: The biologist shall submit a report to the City of San Diego documenting the methods and results of the survey prior to clearing/grubbing activities, as well as to the U.S. Fish and Wildlife Service within 45 days of completing the surveys. MM-BIO-4 Bat Surveys and Roost Avoidance or Exclusion. Prior to the removal of riparian trees that could support roosting bats, a bat biologist shall survey the areas that could provide suitable roosting habitat for bats to confirm they contain no potential maternity roosts. If a potential maternity roost is present, the following measures shall be implemented to reduce the potential impact to special-status bat species to a less-	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		than-significant level: 1. Maternity Roosting Season Avoidance. All proposed demolition activities, including bat roost exclusion, should occur outside the general bat maternity roosting season of March through August to reduce any potentially significant impact to maternity roosting bats. If the maternity roosting season cannot be avoided, then roost exclusion can occur outside the maternity roosting season (September through February) to exclude bats from the demolition area prior to the start of demolition during the maternity roosting season. 2. Roost Exclusion. Roost exclusion must only occur during the time when bats are most active (early spring or fall) to increase the potential to exclude all bats from roosts and minimize the potential for a significant impact to occur by avoiding the maternity roosting season. The primary exit points for roosting bats will be identified, and all secondary ingress/egress locations will be covered with a tarp or wood planks to prevent bats from leaving from other locations. The primary exit point will remain uncovered to allow exclusion devices to be installed. Exclusion devices will consist of a screen (poly netting, window screen, or fiberglass screening) with mesh 1/6 of an inch or smaller, installed at the top of the roost location and sealed along the sides and passing 2 feet below the bottom of the primary exit point. The exclusion devices will be installed at night to increase the potential that bats have already left the roost and are less likely to return. Exclusion devices will be left in place for a 1-week period to ensure that any remaining bats in the roost are excluded. A passive acoustic monitoring detector will also be deployed during the exclusion period in order to verify excluded species and monitor if bat activity has decreased during the exclusion period. Periodic monitoring during the exclusion period should also be conducted to observe if any bats are still emerging from additional areas on	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		the project site, and an active monitoring survey conducted on the final night of exclusion to ensure that no bats are emerging and determine that exclusion has been successful. Any continued presence of roosting bats will require an adjustment to the exclusion devices and schedule. The exclusion devices may remain in place until the start of tree removal activities. If any bats are found roosting in any proposed tree removal areas prior to clearing, additional exclusion will be required and will follow the same methodology described in this mitigation measure. Documentation/Reporting: The biologist shall submit a report to the City of San Diego documenting the methods and results of the surveys prior to clearing/grubbing activities. Timing: Surveys will be completed no more than one week prior to vegetation clearing/grubbing. MM-BIO-5 Pre-Construction Survey for Crotch's Bumble Bee and Take Avoidance. If ground-disturbing activities occur outside of the overwintering season, a pre-construction survey for Crotch's bumble bee (Bombus crotchii) shall occur within the construction area between February and October prior to the start of construction activities. Crotch's bumble bee is a habitat generalist, ground-nesting bee. Surveys and other relevant recommendations will be in accordance with the most recent protocol available at the time of the surveys. The survey shall focus on detecting nests for Crotch's bumble bee within the construction area. If active nests of Crotch's bumble bee are present, an appropriate no disturbance buffer zone should be established around the nest to reduce the risk of disturbance or accidental take. If active nests cannot be avoided, an Incidental Take Permit may be needed and mitigation for direct impacts to Crotch's bumble bee will be fulfilled through compensatory mitigation at a minimum 1:1 nesting habitat replacement of equal or better functions and values to those impacted by the project, or as otherwise determined through the	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		Incidental Take Permit process. Mitigation will be accomplished either through off-site conservation or through a California Department of Fish and Wildlife (CDFW) approved mitigation bank. If mitigation is not purchased through a mitigation bank and lands are conserved separately, a cost estimate will be prepared to estimate the initial start-up costs and ongoing annual costs of management activities for the management of the conservation easement area(s) in perpetuity. The funding source will be in the form of a maintenance fund to help the qualified natural lands management entity that is ultimately selected to hold the conservation easement(s). The endowment amount will be established following the completion of a project-specific Property Analysis Record to calculate the costs of in-perpetuity land management. The Property Analysis Record will take into account all management activities required in the Incidental Take Permit to fulfill the requirements of the conservation easement(s), which are currently in review and development. Documentation/Reporting: The biologist shall submit a report to the City of San Diego and Wildlife Agencies (U.S. Fish and Wildlife Service and CDFW) documenting the methods and results of the surveys prior to clearing/grubbing activities. Timing: Surveys will be completed between February and October prior to the start of construction activities. MM-BIO-6 Nesting Bird Survey. Construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) that occur during the breeding season (typically February 1 through September 15) shall require a one-time biological survey for nesting bird species to be conducted within the proposed impact area and a 500-foot buffer within 72 hours prior to construction. This survey is necessary to assure avoidance of impacts to nesting raptors (e.g., Cooper's hawk [Accipiter cooperii]) and/or birds protected by the federal Migratory Bird Treaty Act and California Fish and Game Code, Sections 3503 and 3513. If any active nests are detected, the area	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		shall be flagged and mapped on the construction plans and the information provided to the construction supervisor and any personnel working near the nest buffer. If occupied nests are found, then limits of construction (e.g., 250 feet for passerines to 500 feet for raptors) to avoid occupied nests shall be established by the project biologist in the field with brightly colored flagging tape, conspicuous fencing, or other appropriate barriers and signage; and construction personnel shall be instructed on the sensitivity of nest areas. A biological monitor will be present during those periods when construction activities occur near active nest areas to avoid inadvertent impacts to these nests. The project biologist may adjust the 250-foot or 500-foot setback at his or her discretion depending on the species and the location of the nest (e.g., if the nest is well protected in an area buffered by dense vegetation). However, if needed, additional qualified monitor(s) shall be provided in order to monitor active nest(s) or other project activities in order to ensure all of the project biologist's duties are completed. Once the nest is no longer occupied for the season, construction may proceed in the setback areas. If construction activities, particularly clearing/grubbing, grading, and other intensive activities, stop for more than 3 days, an additional nesting bird survey shall be conducted within the proposed impact area and a 500-foot buffer. Documentation/Reporting: The biologist shall submit a report to the City of San Diego documenting the methods and results of the surveys prior to clearing/grubbing activities. Timing: Surveys will be completed within 72 hours prior to the start of construction activities during the breeding season (typically February 1 through September 15). **MM-BIO-7 Special-Status Plants.** A qualified biologist will be present prior to and during construction to ensure avoidance of impacts on special-status plant species that were found on the project site during protocol plant surveys (San Diego marsh-elder [Iva hayesiana] and San	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		Diego County viguiera [Viguiera laciniata]) by implementing one or more of the following, as appropriate, per the biologist's recommendation: 1. Flag the population or natural community areas to be protected 2. Allow adequate buffers 3. Time construction or other activities during dormant and/or non-critical life cycle periods For unavoidable impacts to special-status plant species, compensatory mitigation may be required based on recommendations of the qualified biologist. If deemed necessary based on the type and extent of special-status plant populations affected, compensatory mitigation will entail one of the following: 1. The protection, through land acquisition or a conservation easement, of a population of equal or greater size and health. Individual plants lost shall be mitigated at a minimum 1:1 ratio, considering acreage as well as function and value. 2. If it is not feasible to acquire and preserve a known population of a special-status plant to be impacted, suitable unoccupied habitat capable of supporting the species will be acquired and used to create a new population. For population creation, the following considerations will also be met: i. Prior to unavoidable and permanent disturbance to a population of a special-status plant species, propagules shall be collected from the population to be disturbed. This may include seed collection or cuttings, and these propagules will be used to establish a new population on suitable, unoccupied habitat as described above. Transplantation may be attempted but will not be used as the primary means of plant salvage and new population creation. ii. Creation of new populations will require identifying suitable locations and researching and determining appropriate and viable propagation or planting techniques for the species. It will also require field and literature research to determine the	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		appropriate seed sampling techniques and harvest numbers for acquisition of seed from existing populations. iii. Compensatory and preserved populations will be self-producing. Populations will be considered self-producing when: a. Plants reestablish annually for a minimum of 5 years with no human intervention such as supplemental seeding; and b. Reestablished and preserved habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types in the project vicinity. c. If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures will be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria such as those listed above, and other details, as appropriate, to target the preservation of long-term viable populations. Documentation/Reporting: The biologist shall submit a report to the City of San Diego documenting the methods and results of the monitoring/surveys prior to clearing/grubbing activities. Timing: Surveys will be completed prior to the start of construction activities. MM-BIO-8 Temporary Installation of Fencing. To prevent inadvertent disturbance to areas outside the limits of grading for each phase, the contractor shall install temporary fencing, or utilize existing fencing, along the limits of grading. The fencing shall be installed to ensure it does not prevent wildlife from moving through the San Diego River channel. Documentation: The biologist shall submit a report to the City of San	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		Diego documenting the installation of the fencing. Timing: Prior to clearing/grubbing activities. Monitoring: The temporary fencing will be examined during monitoring by the project biologist. Reporting: The temporary fencing will be described in a monitoring report prepared after the construction activities are completed. MM-BIO-9 Construction Monitoring and Reporting. To prevent inadvertent disturbance to areas outside the limits of grading for each phase, all grading of native habitat shall be monitored by a biologist. The biological monitor(s) shall be contracted to perform biological monitoring during all clearing and grubbing activities. The project biologist(s) also shall perform the following duties: 1. Attend the pre-construction meeting with the contractor and other key construction personnel prior to clearing and grubbing to reduce conflict between the timing and location of construction activities with other mitigation requirements (e.g., seasonal surveys for nesting birds). 2. During clearing and grubbing, the project biologist shall conduct meetings with the contractor and other key construction personnel each morning prior to construction activities in order to go over the proposed activities for the day, and for the monitor(s) to describe the importance of restricting work to designated areas and of minimizing harm to or harassment of wildlife prior to clearing and grubbing. 3. Review the construction area in the field with the contractor in accordance with the final grading plan prior to clearing and grubbing. 4. Supervise and monitor vegetation clearing and grubbing weekly to ensure against direct and indirect impacts to biological resources that are intended to be protected and preserved and to document that protective fencing is intact. 5. Flush wildlife species (i.e., reptiles, mammals, avian, or other mobile	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		species) from occupied habitat areas immediately prior to brush-clearing activities. This does not include disturbance of nesting birds (see MM-BIO-6) or "flushing" of federally or state-listed species (i.e., least Bell's vireo (see MM-BIO-1). 6. Periodically monitor the construction site to verify that the project is implementing the following stormwater pollution prevention plan best management practices: dust control, silt fencing, removal of construction debris, a clean work area, covered trash receptacles that are animal-proof and weather-proof, prohibition of pets on the construction site, and a speed limit of 15 miles per hour during daylight and 10 miles per hour during hours of darkness. 7. Periodically monitor the construction site after grading is completed and during the construction phase to see that artificial security light fixtures are directed away from open space and are shielded, and to document that no unauthorized impacts have occurred. 8. Keep monitoring notes for the duration of the proposed project for submittal in a final report to substantiate the biological supervision of the vegetation clearing and grading activities and the protection of the biological resources. 9. Prepare a monitoring report after the construction activities are completed that includes the following: description of the biological monitoring activities, including a monitoring log; photos of the site before, during, and after the grading and clearing activities; and a list of special-status species observed. Timing: Monitoring responsibilities will occur prior to construction (attendance of pre-construction meeting) and during clearing, grubbing and construction activities. Reporting: A monitoring report will be prepared and submitted to the City of San Diego after the construction activities are completed. MM-BIO-10 Air Quality Standards. The following guidelines shall be adhered to:	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		1. No person shall engage in construction or demolition activity subject to this rule in a manner that discharges visible dust emissions into the atmosphere beyond the property line (or work area) for a period or periods aggregating more than 3 minutes in any 60-minute period. 2. Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall: a. Be minimized by the use of any of the following, or equally effective track-out/carry-out and erosion control measures that apply to the project or operation: track-out grates or gravel beds at each egress point, wheel-washing at each egress during muddy conditions, soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding, and for outbound transport trucks, using secured tarps or cargo covering, watering, or treating of transported material. b. Be removed at the conclusion of each workday when active operations cease, or every 24 hours for continuous operations. If a street sweeper is used to remove any track-out/carry-out, only coarse particulate matter (PM_{10}) efficient street sweepers certified to meet the most current South Coast Air Quality Management District Rule 1186 requirements shall be used. The use of blowers for removal of track-out/carry-out is prohibited under any circumstances. **Timing**: These guidelines shall be adhered to during the construction activities. **Reporting:** A monitoring report will be prepared and submitted to the City of San Diego after the construction activities are completed and will include documentation of adherence to these guidelines. **MM-BIO-11 Construction Documents.** The Multiple Species Conservation Program (MSCP) staff at the City of San Diego shall verify that the Applicant has accurately represented the project's design in or on the construction documents and is in conformance with the City's Multi-Habitat Planning Area (MHPA) Land Use Adjacency Guidelines (LUAGs).	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		The Applicant shall provide an implementing plan and include references on the construction documents of the following: 1. Enhanced Temporary Stabilization Measures. Locations shall be documented where biodegradable coir mat or other similar erosion control products will be installed to prevent sedimentation downstream of the project site during storm events. Enhanced temporary stabilization measures shall be installed prior to rain events where the flood stage is forecasted to exceed a depth of 4 feet. Predicted depths will be based on the U.S. Geological Survey Fashion Valley gage in the San Diego River, as reported here: https://water.weather.gov/ahps2/hydrograph.php?wfo=sgx&gage=fsnc1. 2. Drainage. Document the California Department of Transportation Type D-1 deck drains, drainpipes, and storm drain system. 3. Toxics/Project Staging Areas/Equipment Storage. Projects that use chemicals or generate by-products such as pesticides, herbicides, and other substances that are potentially toxic or impactive to native habitats/flora/fauna (including water) shall incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA. No trash, oil, parking, or other construction/development-related material/activities shall be allowed outside any approved construction limits. Provide a note on the Construction Documents that states: "All construction related activity that may have potential for leakage or intrusion shall be monitored by the Qualified Biologist/Owners Representative or Resident Engineer to ensure there is no impact to the MHPA." 4. Lighting. Lighting shall be designed to minimize light pollution within native habitat areas, while enhancing safety, security, and functionality. All artificial outdoor light fixtures within 100 feet of the MHPA shall be installed so they are shielded and directed away from sensitive areas, resulting in very little light spillage over the bridge into the San Diego River. Any safety lighting required should be directed away from sensitive areas to ensure compliance with	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		the MSCP's LUAGs and to be in accordance with Land Development Code Section 142.0740 (Outdoor Lighting Regulations). The specific types of light poles, arms, and luminaires can be adjusted to suit aesthetics. 5. Barriers. The construction documents shall show any new fencing added along the boundaries of the MHPA to reduce public access, as well as any barriers required to provide adequate noise reduction where needed. 6. Invasives. No invasive non-native plant species shall be introduced into areas within or adjacent to the MHPA. Documentation: On the construction documents. Timing: Prior to approval of any grading plans and issuance of any grading or construction permits. MM-BIO-12 Invasive Plant Species Control. To reduce potential effects of invasive species to the adjacent Stadium Wetland Mitigation Site, the applicant shall perform the following: 1. Weed control treatments shall occur prior to seed set and/or weed species reaching 12 inches in height, and will include the application of legally permitted herbicide, as well as manual and mechanical methods of removal. The application of herbicides shall comply with state and federal laws and regulations under the prescription of a Pest Control Advisor and shall be implemented by a Licensed Qualified Applicator. Herbicides shall not be applied during or within 72 hours of a forecasted measurable rain event or during high wind conditions that could cause spray drift onto native vegetation. Where manual or mechanical methods are used, plant debris shall be disposed of at a certified disposal site. The timing of the weed control treatment shall be determined for each plant species with the goal of controlling populations before they start producing seeds. 2. All straw materials used during project construction and operation	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		shall be weed-free rice straw or other weed-free product, and all gravel and fill material shall be weed free. If straw wattles are used, they shall not be encased in plastic mesh. 3. Prior to entry to the project area for the first time, equipment must be free of soil and debris on tires, wheel wells, vehicle undercarriages, and other surfaces (a high-pressure washer and/or compressed air may be used to ensure that soil and debris are completely removed). Compliance with the provision is achieved by on-site inspection and verification or by demonstrating that the vehicle or equipment has been cleaned at a commercial vehicle or appropriate truck washing facility. In addition, the interior of equipment (cabs, etc.) shall be free of mud, soil, gravel, and other debris (interiors may be vacuumed or washed). 4. All vegetative material removed from the project site shall be transported in a covered vehicle and will be disposed of at a certified disposal site. **Timing:** These guidelines shall be adhered to during the construction activities. **Reporting:** A monitoring report will be prepared and submitted to the City of San Diego after the construction activities are completed and will include documentation of adherence to these guidelines. **MM-BIO-13 Signage and Barriers.** To prevent long-term inadvertent disturbance to sensitive vegetation and species adjacent to the bridge site, signage and, if needed, visual barriers (e.g., berm, fence, rocks, plantings, etc.) shall be installed where appropriate to deter access from the bridge into the San Diego River. The signage shall state that these areas are native habitat areas, and that no trespassing is allowed. Signage shall also include prohibitions on littering. **Documentation:** The locations of these signs will be shown on the Wetlands Habitat Mitigation and Monitoring Plan or similar document. **Timing:** Prior to approval of any grading plans and issuance of any	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		grading or construction permits. **MM-BIO-14 Invasive Species Prohibition.** Final landscape and revegetation plans shall be reviewed by the project biologist and a qualified botanist to confirm there are no invasive plant species as included on the most recent version of the California Invasive Plant Council California Invasive Plant Inventory for the project region. Documentation: Final landscape and/or revegetation plans. Timing: Prior to approval of any grading plans and issuance of any grading or construction permits. **MM-BIO-15 Short-Term Noise.** Pre-construction biological and noise surveys shall be conducted for any work between February 1 and September 15. Between 3 and 7 days prior to start of construction activities, a qualified biologist with experience in identifying least Bell's vireo (Vireo bellii pusillus), southwestern willow flycatcher (Empidonax traillii extimus), and coastal California gnatcatcher (Polioptila californica californica) shall conduct a pre-construction survey for the least Bell's vireo, coastal California gnatcatcher, and, if needed, southwestern willow flycatcher to document presence/absence and the extent of habitat being occupied by the species. The pre-construction survey area for these species shall encompass all suitable habitats within the impact area, as well as suitable habitat within a 500-foot buffer of the construction activities. If active nests for any of these species are detected, a qualified biologist will conduct sound monitoring near the observed nesting position(s) to sample the pre-construction outdoor ambient noise level and document any signs of disturbance prior to construction activities. Nest locations, their horizontal distances to planned construction activities, and the measured outdoor ambient noise levels shall be provided to a qualified acoustician, who shall recommend where implementation of practical noise reduction technique(s) would yield predicted construction noise exposure at the nest location not greater than the allowable threshold of 60 A-weighted decibels equivalent continuous sound level or ambient noise level,	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		whichever is higher. To the extent feasible, on-site noise reduction techniques shall be implemented prior to construction activity to minimize construction noise levels and meet this sound level threshold at the nest location(s). During construction activity, a qualified biologist shall monitor the observed nest locations and document any signs of disturbance, which would trigger further implementation of noise reduction techniques or alternatives that may include utilization of quieter equipment, adherence to equipment maintenance schedules, shifting construction phase timelines so that they occur outside of the breeding season, installation of temporary sound barriers, or shifting construction work further from the nest. Timing: Surveys will be completed within 72 hours prior to the start of construction activities during the breeding season (typically February 1 through September 15). Reporting: The biologist shall submit a report to the City of San Diego documenting the methods and results of the surveys prior to clearing/grubbing activities. Additionally, a monitoring report will be prepared and submitted to the City of San Diego after the construction activities are completed. **MM-BIO-16 Brown-Headed Cowbird Control.** A brown-headed cowbird reduction program shall be initiated within the project area. The control program may be achieved by selecting one of the following methods which will be determined by SDSU or its designee: 1. Fair share funding into the San Diego River Endowment Fund (managed by the San Diego Foundation) or other program whose primary purpose is to provide funds to support work of U.S. Fish and Wildlife Service, California Department of Fish and Game, or other governmental or not-for-profit environmental organization for exotic species control, brown-headed cowbird trapping, least Bell's vireo monitoring and other activities to benefit the least Bell's vireo. The exact financial contribution amount will be negotiated with the USFWS during the Incidental Take Permit processing but should	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		cover the cost of cowbird control for the area 0.3 miles downstream and 0.3 miles upstream of the bridge for five years after the bridge has been constructed. Should this option be selected, payment of the negotiated fee shall occur prior to the commencement of construction. Establishment of a trapping program within and immediately adjacent to the bridge construction work area. Pre-construction trapping shall begin prior to the first phase of construction to document baseline conditions. The post-construction trapping program will commence the spring after the bridge is constructed and will continue for a period of 5 years, or until such time as an alternative control method is developed, which shall then replace the trapping program through the 5-year period. If brown-headed cowbird populations have increased from baseline conditions during the 5-year trapping program, trapping (or an alternative equally effective control method) shall continue for trapping program continue for up to an additional 10 years, with the right to terminate if brown-headed cowbird populations decrease to the baseline levels or achieves another equivalent metric. If the brown-headed cowbird population decreases during the 5-year trapping program, the program will be deemed successful and trapping beyond the 5-year timeframe will no longer be necessary. The trapping program shall be based on the most currently used trapping methods. Three traps shall be set: one in the bridge construction work area, one approximately 1/3 mile upstream of the bridge work area and one 1/3 mile downstream of the bridge work area. If there are current programs in place within that distance within the 5-year trapping program, then the project-related trapping will end. If the other trapping program ends within the 5-year period, SDSU or its designee will ensure that a trapping program is conducted for the duration of the 5-year period. Trapping shall be performed between April 1 and August 1 unless 21 days without brown-headed cowbirds occurs, then trapping may end for that year. Yearly reporting of the trapping results shall be provided to the City and	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		will minimally include the rationale for trap placement, number of target species, non-target species, mortalities of each, sex and age of each as able to be determined, comparison to prior trapping, and suggestions for the following year. **Documentation/Reporting:** Yearly reporting of the trapping results shall be provided to the City for the duration of the trapping/control program. **Timing:** Trapping shall begin the spring after the bridge has been constructed and continue for a period of 5 years (or up to an additional 10 years as described above). Trapping shall be performed between April 1 and August 1 unless 21 days without brown-headed cowbirds occurs, then trapping may end for that year. 3. Alternative brown-headed cowbird control program. Given that the science is evolving on the effectiveness of brown-headed cowbird control programs, should another method of control be developed and proved equally or more effective than one of the above methods, this option could be selected. This option would need to include the same performance criteria of ensuring that the brown-headed cowbird populations would be the same or lower than the baseline (season before the bridge construction begins).	
Would the project have a substantial adverse effect on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the Biology Guidelines of the Land Development manual or riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Potentially Significant	See **MM-BIO-2** above. **MM-BIO-17 Restore Temporary Impacts.** Temporary impacts to Diegan coastal sage scrub, unvegetated channel, and southern cottonwood–willow riparian forest (federally and state-regulated wetlands) shall be restored to their original condition. California State University/San Diego State University or its designee shall prepare a conceptual restoration plan outlining the restoration of these communities and implement the restoration plan, including monitoring and maintenance, for a period of at least 3 years with a goal to restore temporarily impacted areas to above 80% of pre-project native cover. The conceptual restoration plan shall be reviewed and approved by City of San Diego, including PUD and MSCP reviewers, and shall be consistent with the long-term	Less than significant

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		maintenance requirements for the City of San Diego Stadium Wetland Mitigation Site. Documentation: The Habitat Mitigation and Monitoring Plans prepared for the temporary impacts to wetlands and uplands (as applicable). Timing: Conceptual plans shall be submitted to the City of San Diego prior to approval of any grading plans and issuance of any grading or construction permits. Monitoring: Monitoring of restoration shall occur over a period of at least 3 years. Reporting: Reporting will occur upon commencement of the mitigation installation, at the completion of mitigation installation, at the completion of the 120-day plant establishment period, and annually throughout the 3-year to 5-year monitoring effort.	
Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Potentially Significant	See **MM-BIO-2, MM-BIO-8, MM-BIO-9, MM-BIO-10, MM-BIO-11, MM-BIO-12, MM-BIO-13, MM-BIO-14**, and **MM-BIO-17** above. **MM-BIO-18 Wetland Mitigation.** The overall ratio of wetland/riparian habitat mitigation shall be 3:1. Impacts shall be mitigated at a 1:1 impact-to-creation ratio by either the creation, or purchase of credits for the creation, of jurisdictional habitat of similar functions and values. An additional 2:1 enhancement-to-impact ratio shall be required to meet the overall 3:1 impact-to-mitigation ratio for impacts to wetlands/riparian habitat. Impacts to the unvegetated stream channels in the San Diego River shall occur at a 1:1 or 2:1 mitigation ratio, with a 1:1 impact-to-creation ratio. Additional mitigation for unvegetated channels will occur through preservation. Mitigation may occur as off-site enhancement and restoration, and/or purchase of credits at an approved mitigation bank. If mitigation is proposed outside of an approved mitigation bank, a Conceptual Wetlands Mitigation and Monitoring Plan shall be prepared and implemented. The Conceptual Wetlands Mitigation and Monitoring	Less than significant

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		Plan shall, at a minimum, prescribe site preparation, planting, irrigation, and a 5-year maintenance and monitoring program with qualitative and quantitative evaluation of the revegetation effort and specific criteria to determine successful revegetation. The California State University/San Diego State University shall be responsible for the maintenance and maintenance program. Prior to impacts occurring to U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) jurisdictional aquatic resources, California State University/San Diego State University or its designee shall obtain the following permits: USACE 404 permit, RWQCB 401 Water Quality Certification, and CDFW 1600 Streambed Alteration Agreement. Documentation: The mitigation plan and/or proof of purchase of credits from a mitigation bank shall be provided to the City of San Diego. Timing: Prior to approval of any grading plans and issuance of any grading or construction permits.	
Would the project interfere substantially 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?	Potentially Significant	See **MM-BIO-8, MM-BIO-9, MM-BIO-11, MM-BIO-13**, and **MM-BIO-14** above.	Less than significant
Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact	N/A	No Impact
Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural	No Impact	N/A	No Impact

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, either within the MSCP plan area or in the surrounding region?			
Would the project have a cumulative effect on biological resources?	Less than Significant	N/A	Less than significant
Cultural Resources			
Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	No Impact	N/A	No Impact
Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Potentially Significant impact related to the possibility of encountering archaeological or cultural material (Impact CUL-1).	**MM-CUL-1** In order to mitigate impacts to cultural resources to a level that is less than significant, procedures for proper treatment of unanticipated archaeological finds must comply with the California Environmental Quality Act (CEQA) Guidelines. Adherence to the following requirements during initial earth-disturbing activities will assure the proper treatment of unanticipated archaeological or Native American cultural material: 1. An archaeological monitor and a qualified Kumeyaay Native American monitor shall be present fulltime during all initial ground-disturbing activities of previously undisturbed soils. If proposed project excavation later present evidence suggesting a decrease in cultural sensitivity such as geologic formation predating human occupation of the Americas, the monitoring schedule can be reduced pending archaeological, Native American, and San Diego State University (SDSU) consultation. 2. In the event that previously unidentified potentially significant cultural resources are discovered, the archaeological monitor, Kumeyaay Native American monitor, construction or other personnel shall have the authority to divert or temporarily halt ground disturbance operations within 50 feet of the find. The	Less than Significant

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		archaeological monitor shall promptly evaluate and document isolates and clearly non-significant deposits in the field. More significant deposits shall be evaluated under the direction of the lead archaeologist on the proposed project, in consultation with the Native American monitor and SDSU staff. For significant cultural resources, a Research Design and Data Recovery Program to mitigate impacts shall be prepared by the qualified archaeologist and approved by SDSU, then carried out expeditiously using professional archaeological methods. The Research Design and Data Recovery Program shall include (1) reasonable efforts to preserve (avoidance) "unique" cultural resources or Sacred Sites pursuant to CEQA Section 21083.2(g) as the preferred option; (2) the capping of identified Sacred Sites or unique cultural resources and placement of development over the cap, if avoidance is infeasible; and (3) data recovery for unavoidable cultural resources. Construction activities will be allowed to resume in the affected area only after proper evaluation, as described above.	
Would the project disturb any human remains, including those interred outside of dedicated cemeteries?	Potentially Significant impact related to the potential to encounter undocumented human remains (Impact CUL-2).	MM-CUL-2 In order to mitigate impacts to human remains to a level that is less than significant, procedures for proper treatment of unanticipated finds must comply with the California Environmental Quality Act (CEQA) Section 15064.5(e). In the event of discovery of unanticipated human remains, personnel shall comply with California Public Resources Code Section 5097.98, CEQA Section 15064.5, and Health and Safety Code Section 7050.5 during ground-disturbing activities: a. If any human remains are discovered, the construction personnel or the appropriate representative shall contact the County Coroner and San Diego State University. Upon identification of human remains, no further disturbance shall occur in the immediate area of the find until the County Coroner has made the necessary findings as to origin. If the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the Native American Heritage	Less than Significant

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		Commission, shall be contacted by the property owner or their representative to make recommendations regarding the proper treatment and disposition of the remains. The immediate vicinity where the Native American human remains are located is not to be damaged or disturbed by further development activity until the opportunity to complete consultation with the Most Likely Descendant regarding their recommendations as required by California Public Resources Code Section 5097.98 has occurred. California Public Resources Code Section 5097.98, CEQA Section 15064.5, and California Health and Safety Code Section 7050.5 shall be followed.	
Would the project have a cumulative effect on cultural resources?	Less than Significant	N/A	Less than Significant
Energy			
Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Less than Significant	N/A	Less than Significant
Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less than Significant	N/A	Less than Significant
Would the project have a cumulative effect on energy resources?	Less than Significant	N/A	Less than Significant

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Geology and Soils			
Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			
A. Rupture of a known earthquake fault, 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?	No Impact	N/A	No Impact
B. Strong seismic ground shaking?	Less than Significant	N/A	Less than Significant
C. Seismic related ground failure including liquefaction?	Less than Significant	N/A	Less than Significant
D. Landslides?	Less than Significant	N/A	Less than Significant
Would the project result in substantial soil erosion or the loss of topsoil?	Less than Significant	N/A	Less than Significant
Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Less than Significant	N/A	Less than Significant
Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building	Less than Significant	N/A	Less than Significant

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Code (1994), creating substantial direct or indirect risks to life or property?			
Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	No Impact	N/A	No Impact
Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Potentially Significant	**MM-GEO1 Paleontological Resources Impact Mitigation Program and Paleontological Monitoring.** Prior to commencement of any grading activity on site, the applicant shall retain a qualified paleontologist per the 2010 Society of Vertebrate Paleontology (SVP) guidelines. The qualified paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the project that shall be consistent with the 2010 SVP guidelines. The PRIMP shall outline requirements for preconstruction meeting attendance and worker environmental awareness training; where paleontological monitoring is required within the project site based on construction plans and/or geotechnical reports; procedures for paleontological monitoring and discoveries treatment per SVP (2010) guidelines; and paleontological methods (including sediment sampling for microinvertebrate and microvertebrate fossils), reporting, and collections management. The PRIMP shall also include a statement that any fossil lab or curation costs (if necessary due to fossil recovery) are the responsibility of the project proponent. A qualified paleontological monitor shall be on site during initial rough grading and other significant ground-disturbing activities (including augering) in areas underlain by the old alluvial flood plain deposits and below a depth of 5 feet below the ground surface in areas underlain by Holocene flood plain deposits to determine if they are old enough to preserve scientifically significant paleontological resources. In the event that paleontological resources (e.g., fossils) are	Less than Significant

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		unearthed during grading, the paleontological monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot-radius buffer. Once documentation and collection of the find is completed, the monitor shall allow grading to recommence in the area of the find. Any fossils encountered and recovered shall be prepared to the point of identification, catalogued, and donated to a public, nonprofit institution with a research interest in the materials. Accompanying notes, maps, and photographs shall also be filed at the repository.	
Would the project have a cumulative effect on geology and soils resources?	Less than Significant	N/A	Less than Significant
Greenhouse Gas Emissions			
Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than Significant	N/A	Less than Significant
Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less than Significant	N/A	Less than Significant
Would the project have a cumulative effect on greenhouse gas emissions?	Less than Significant	N/A	Less than Significant
Hazards and Hazardous Materials			
Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal	Less than Significant	N/A	Less than Significant

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
of hazardous materials?			
Would the project 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?	Less than Significant	N/A	Less than Significant
Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less than Significant	N/A	Less than Significant
Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	Less than Significant	N/A	Less than Significant
Would the project have a cumulative effect on hazards or hazardous materials?	Less than Significant	N/A	Less than Significant
Hydrology and Water Quality			
Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Less than Significant	N/A	Less than Significant

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Less than Significant	N/A	Less than Significant
Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	Less than Significant	N/A	Less than Significant
A. result in substantial erosion or siltation on or off site;	Less than Significant	N/A	Less than Significant
B. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;	Less than Significant	N/A	Less than Significant
C. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	Less than Significant	N/A	Less than Significant
D. impede or redirect flood flows?	Less than Significant	N/A	Less than Significant

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?	No Impact	N/A	No Impact
Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact	N/A	No Impact
Would the project have a cumulative effect on hydrology or water quality resources?	Less than Significant	N/A	Less than Significant
Land Use and Planning			
Would the project physically divide an established community?	Less than Significant	N/A	Less than Significant
Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Less than Significant	N/A	Less than Significant
Would the project have a cumulative effect on land use resources?	Less than Significant	N/A	Less than Significant
Noise			
Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of	Potentially Significant	See **MM-BIO-15** above. **MM-NOI-1 Noise Barrier for Multi-Family Receptors.** The applicant and/or project contractor shall implement the following measures before the start of construction activities: ▪ All construction equipment must be in good working order and have	Significant and Unavoidable

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		functional sound mufflers to attenuate exhaust noise, which shall be properly maintained and used whenever such equipment is in operation. ▪ To the extent practical given site constraints, the project contractor shall orient/operate stationary construction equipment (i.e. construction equipment that is not mobile in nature and propelled by a built-in motor, such as generators, light stands, and pumps) so that emitted noise is directed away from sensitive receptors nearest the project site. ▪ The construction contractor shall locate on-site equipment staging areas to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site during the construction period. ▪ All noise-producing construction activities, including warming up or servicing equipment and any preparation for construction, shall not exceed the nighttime noise level thresholds as stated in the City's ordinance between the hours of 7:00 p.m. and 7:00 a.m. ▪ An eight (8) foot tall temporary plywood noise barrier shall be erected along the northern project site property line where the project boundary is adjacent to the noise sensitive receptor (multi-family development to the north of the project site). - The materials used for temporary barrier shall be sufficient to last through the duration of construction of the project, and shall be maintained in good repair. - The acoustical material or composite material assembly used shall be weather and abuse-resistant. - The eight-foot-tall temporary solid noise barrier shall be constructed of 3/4-inch Medium Density Overlay (MDO) plywood sheeting, or other material of equivalent utility and appearance having a surface weight of 2 pounds per square foot or greater. - Barrier panels shall be attached to support frames to withstand, via ground anchoring methods such as rigid attachment or weighted loading (e.g., sandbags), anticipated onsite wind loads	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		plus a 30 percent gust factor. - The temporary acoustical barrier material shall be installed in vertical and horizontal segments with the vertical segments extending the full enclosure height. - The acoustical material shall have a Sound Transmission Class (STC) of STC-20 or greater, based on certified sound transmission loss (TL) data taken according to American Society of Testing and Materials (ASTM) Test Method E90 and exhibited by the material supplier. - When including sound-absorptive media as an assembly feature, the Noise Reduction Coefficient (NRC) rating shall be 0.6 or greater, based on certified sound absorption coefficient data taken according to ASTM Test Method C423 and exhibited by the material supplier. - A temporary flexible acoustical barrier may also be used in lieu of or in combination with a temporary solid noise barrier. The flexible acoustical barrier (a.k.a., "blanket", "curtain", or "partial enclosure") shall consist of durable, flexible single or composite material featuring a noise barrier layer optionally bonded to sound-absorptive material on the side intended to face the noise-producing equipment or activity of concern. This type of flexible acoustical barrier can be hung from a support structure. - Prefabricated acoustic barriers are available from various vendors. An equivalent barrier design can be submitted instead of the plywood barrier described above provided that the noise reduction performance of the equivalent design is substantiated as being equivalent or superior.	
Would the project result in generation of excessive groundborne vibration or groundborne noise levels?	Less than Significant	N/A	Less than Significant
For a project located within the vicinity of a private airstrip or an	Less than Significant	N/A	Less than Significant

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			
Would the project have a cumulative effect on noise resources?	Less than Significant	N/A	Less than Significant
Recreation			
Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Less than Significant	N/A	Less than Significant
Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	Less than Significant	N/A	Less than Significant
Would the project have a cumulative effect on recreation resources?	Less than Significant	N/A	Less than Significant
Transportation			
Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle,	Less than Significant	N/A	Less than Significant

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
and pedestrian facilities?			
Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Less than Significant	N/A	Less than Significant
Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Less than Significant	N/A	Less than Significant
Would the project result in inadequate emergency access?	Less than Significant	N/A	Less than Significant
Would the project have a cumulative effect on transportation resources?	Less than Significant	N/A	Less than Significant

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Tribal Cultural Resources			
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: A. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	Less than Significant	N/A	Less than Significant
B. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California	Potentially Significant	See **MM-CUL-1** above.	Less than Significant

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Native American tribe?			
Would the project have a cumulative effect on tribal cultural resources?	Less than Significant	N/A	Less than Significant
Utilities and Service Systems			
Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Less than Significant	N/A	Less than Significant
Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	Less than Significant	N/A	Less than Significant
Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Less than Significant	N/A	Less than Significant
Would the project generate solid waste in excess of State or local standards, or in excess of the	Less than Significant	N/A	Less than Significant

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			
Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Less than Significant	N/A	Less than Significant
Would the project have a cumulative effect on utilities and/or service systems resources?	Less than Significant	N/A	Less than Significant
Wildfire			
Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?	Less than Significant	N/A	Less than Significant
Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Potentially Significant impact associated with increased ignition potential resulting from construction within the San Diego River (Impact WLD-1).	**MM-WF-1: Pre-Construction Requirements.** The following pre-construction requirements shall be implemented. These features shall be coordinated with the San Diego Fire-Rescue Department (SDFD) or their designee prior to commencing project construction. ▪ Existing flammable vegetation shall be cleared from staging areas, the project site, and bridge column locations prior to commencement of construction. ▪ Dead fuel, ladder fuel (fuel which can spread fire from the ground to trees), and downed fuel shall be removed, and trees/shrubs shall be properly limbed, pruned, and spaced. ▪ A response map update, including roads and fire hydrant locations, in a format compatible with current SDFD mapping, shall be provided to the SDFD. **Construction Requirements.** The following construction requirements shall be implemented. These features shall be coordinated with the	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		SDFD or their designee. ▪ Throughout the duration of construction, the construction contractor shall ensure that adequate access is provided for emergency vehicles during all construction phases. ▪ Throughout the duration of construction, the construction contractor shall ensure that adequate water supply for firefighting is available during all phases of construction. ▪ The construction contractor shall ensure the implementation of all construction-phase vegetation clearance prior to commencing construction activities. **Construction Fire Prevention Plan.** Prior to commencement of construction activities, the California State University/San Diego State University or its designee shall develop a Construction Fire Prevention Plan that addresses training of construction personnel and provides details of fire-suppression procedures and equipment to be used during construction. Information contained in the plan shall be included as part of project-related environmental awareness training. At minimum, the plan shall include the following: ▪ Procedures for minimizing potential ignition, including, but not limited to, vegetation clearing, parking requirements/restrictions, idling restrictions, smoking restrictions, proper use of gas-powered equipment, use of spark arrestors, and hot work restrictions ▪ Work restrictions during Red Flag Warnings and High to Extreme Fire Danger days ▪ Fire coordinator role and responsibility ▪ Worker training for fire prevention, initial attack firefighting, and fire reporting ▪ Emergency communication, response, and reporting procedures ▪ Coordination with local fire agencies to facilitate agency access through the project site ▪ Emergency contact information	

Table ES-2. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		2. Demonstrate compliance with applicable plans and policies established by state agencies	
Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Less than Significant	N/A	Less than Significant
Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Less than Significant	N/A	Less than Significant
Would the project have a cumulative effect on wildfire?	Less than Significant	N/A	Less than Significant

ES.5 Areas of Controversy/Issues to be Resolved

Section 15123(b)(2) of the CEQA Guidelines requires that areas of controversy known to the lead agency be stated in the EIR summary. To determine the number, scope, and extent of the environmental topics to be addressed in this EIR, SDSU prepared an NOP and initial study and circulated them to interested public agencies, organizations, community groups, and individuals in order to receive input on the proposed project. SDSU also held a scoping/public information meeting to obtain agency and public input on the proposed project. Based on the NOP and Initial Study scoping process and comments received, among the issues that are addressed in the Draft EIR are the following (the EIR section that addresses the issue raised is provided in parentheses):

1. Biological resource impacts, including consideration of the MSCP and City of San Diego's MSCP Subarea Plan (Section 3.3, Biological Resources)
2. Cultural resources, including tribal cultural resources and outreach to Native American tribes (Section 3.4, Cultural Resources, and 3.14, Tribal Cultural Resources)
3. Geology and soils, including impacts paleontological resources (Section 3.6, Geology and Soils)
4. Hydrology, drainage, flooding, and water quality impacts associated with construction work in the San Diego River and introduction of a new permanent structure into the river area (Section 3.9, Hydrology and Water Quality)
5. Noise impacts on nearby sensitive wildlife receptors (during construction and once operational) (Section 3.11, Noise)
6. Alternatives (Chapter 5, Alternatives)

ES.6 Summary of Project Alternatives

Section 15126.6 of the CEQA Guidelines identifies the parameters within which consideration and discussion of alternatives to the project should occur. Alternatives should include those that are reasonably feasible and would attain most of the basic objectives of the project. Alternatives should be capable of avoiding or substantially lessening significant effects of the proposed project. The rationale for selecting the alternatives to be evaluated and a discussion of the No Project Alternative are also required.

The EIR identifies four project alternatives developed during the conceptual planning phase of the proposed project.

1. No Project (No Build) Alternative. CEQA requires consideration of a no project alternative and recommends it evaluate what could reasonably be expected to occur in the foreseeable future if the proposed project were not approved, based on current plans and consistent with available infrastructure and community services (14 CCR 15126.6[e][3][C]). The No Project (No Build) Alternative assumes that the proposed project would not be developed and existing environmental conditions in the project area would remain in their current state. As such, no bridge would be developed across the San Diego River.
2. Pedestrian/Bicycle Only Bridge Alternative. The Pedestrian/Bicycle Only Bridge Alternative would involve the construction of a pedestrian/bicycle only bridge and would not provide vehicular access. While this alternative would improve north–south pedestrian and bicycle access in the area, it would not provide any emergency access or improve evacuation capacity. This alternative would have a narrower bridge design

because it would not include vehicular lanes and three smaller piers would need to be installed in the river channel.

3. Tied-Arch Bridge Alternative. The Tied-Arch Bridge Alternative would avoid the installation of any piers within the river bottom. Instead, the bridge would span the river using a pair of tall arches from which the deck would be suspended by cables. The entire structure would be supported by large abutment foundations installed in the north and south banks of the river. This alternative would avoid potential cultural and tribal cultural resource impacts in the riverbed but would necessitate broader impact footprints within the existing street infrastructure along the southern edge of the river and the proposed street infrastructure along the northern edge of the river. This alternative would also require encroachment into the City's Stadium Wetland Mitigation Site. The construction method for installing a tied-arch bridge would require larger cranes within the river corridor, and a greater area of vegetation would need to be cleared to accommodate the tall temporary arch supports.
4. Suspension Bridge Alternative. The Suspension Bridge Alternative would avoid the installation of any piers within the river bottom. Instead, the bridge would span the river using a pair of large towers (approximately 120 feet in height) supported by large abutment foundations installed in the north and south banks of the river. Two additional foundations would need to be installed for the anchorages (back-stays) approximately 150 feet north of the north tower and 150 feet south of the south tower. This alternative would avoid potential cultural and tribal cultural resource impacts within the riverbed but would necessitate broader impact footprints within the existing street infrastructure on the south edge of the river and the proposed street infrastructure on the north edge of the river. This alternative would require additional encroachment into the City's Stadium Wetland Mitigation Site. The Suspension Bridge Alternative would have increased impacts to biological resources compared to the proposed project.

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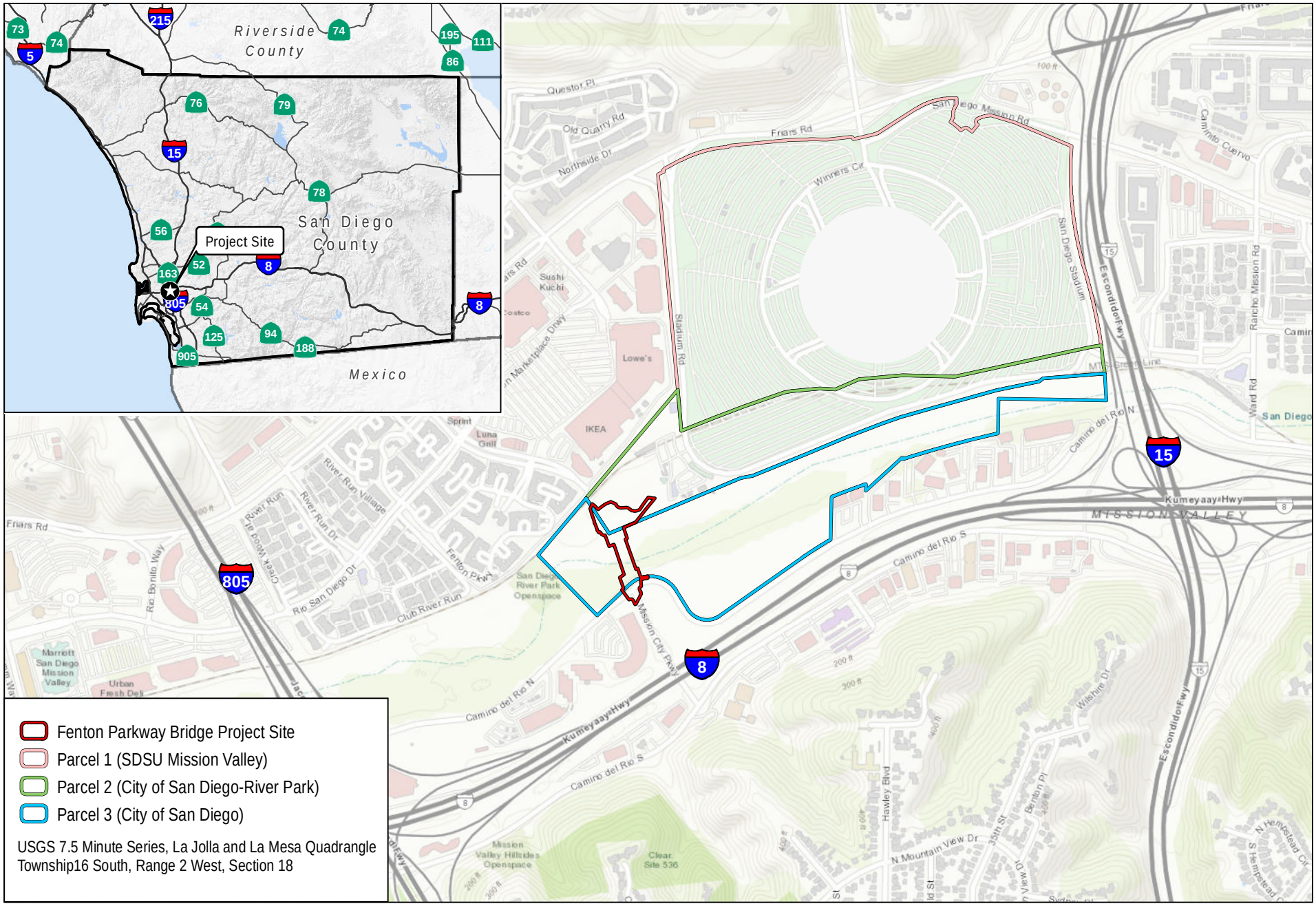

SOURCE: ESRI MAPPING SERVICE; BOWMAN/PDC 5/08/2023

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FIGURE ES-1
Vicinity Map
Fenton Parkway Bridge Project EIR

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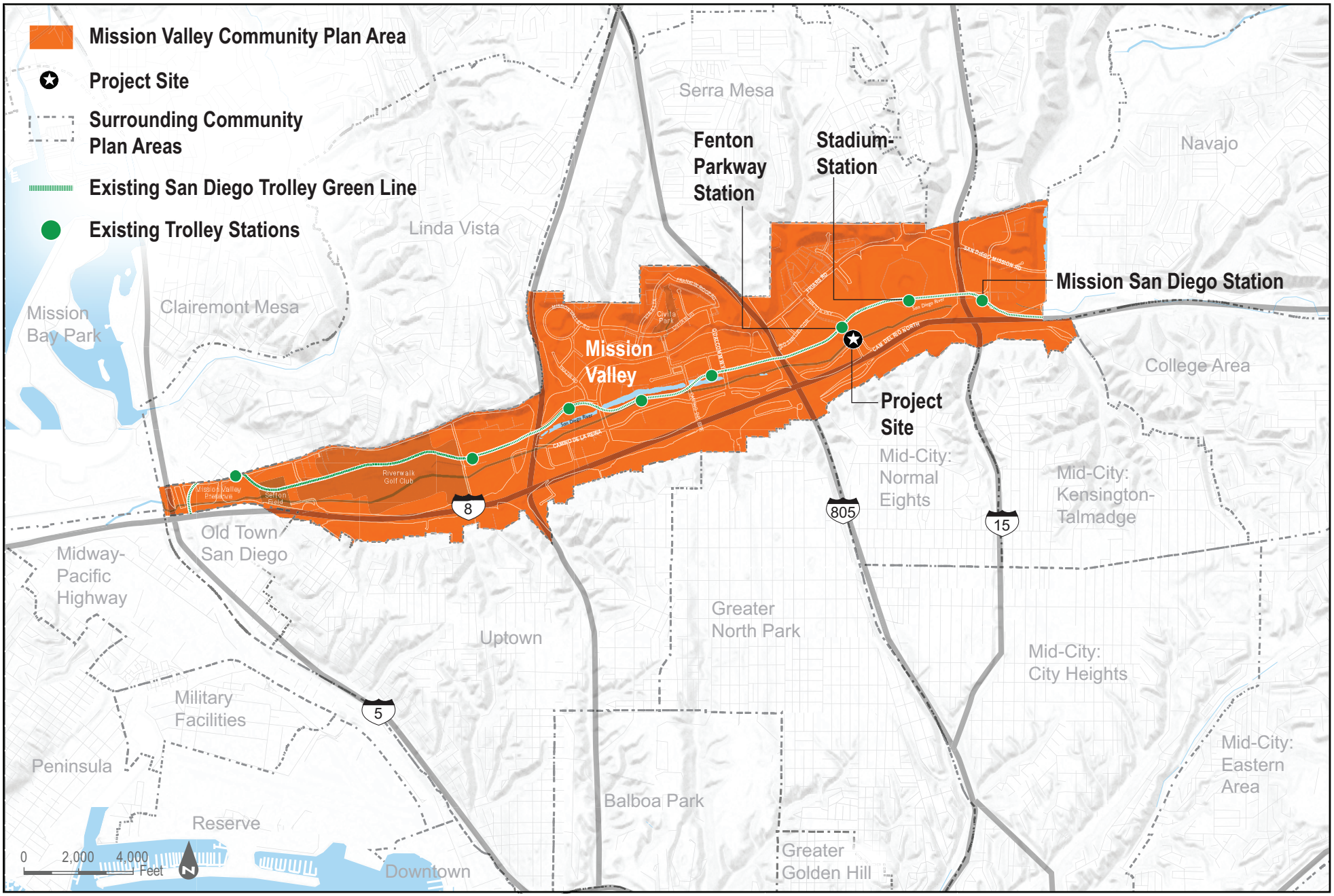

SOURCE: CITY OF SAN DIEGO

FIGURE ES-2

Mission Valley Community Plan

Fenton Parkway Bridge Project EIR

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SOURCE: AERIAL-ESRI IMAGERY SERVICE 2022

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FIGURE ES-3

Project Site and Surrounding Land Uses

Fenton Parkway Bridge Project EIR

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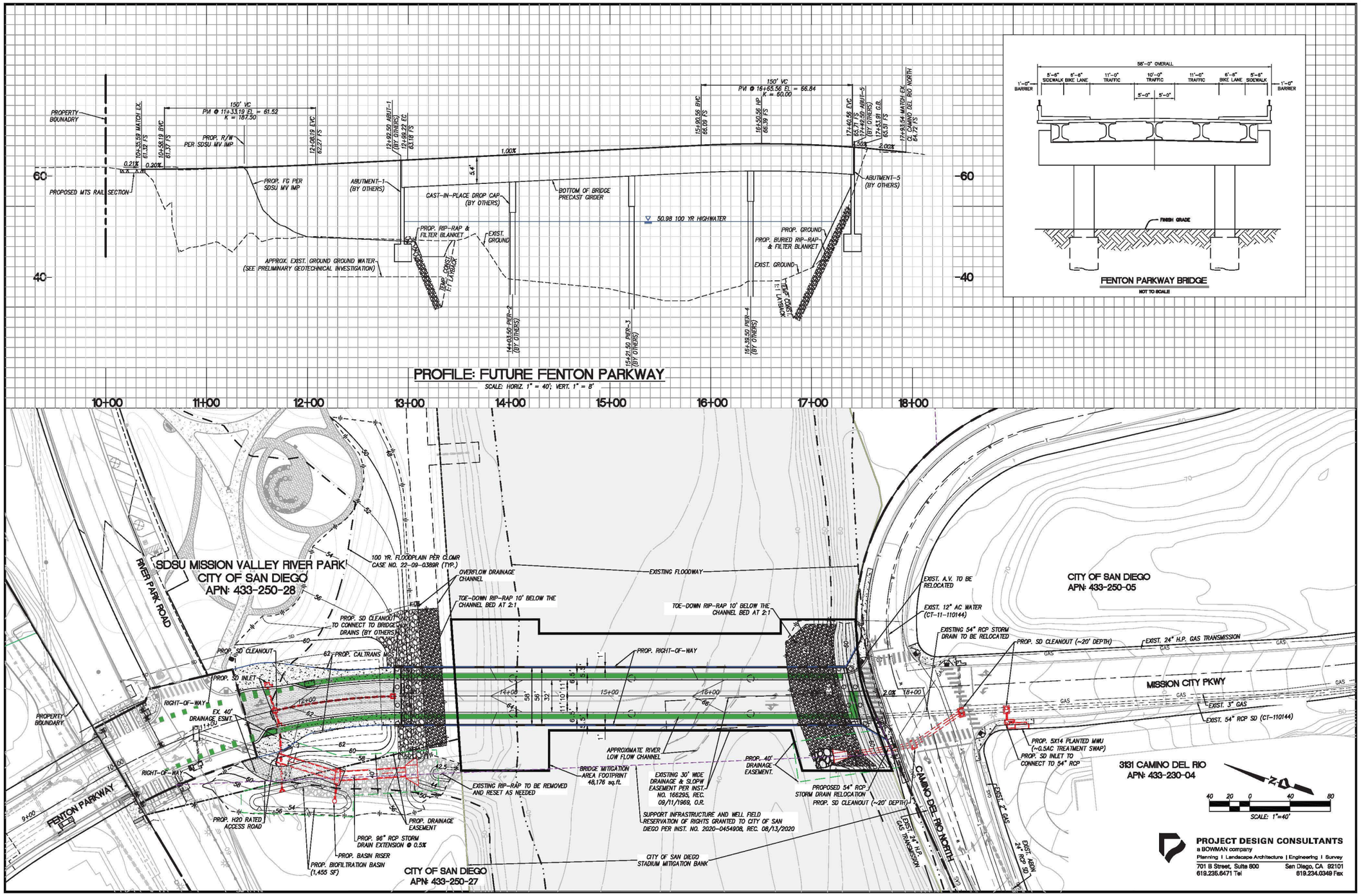

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SOURCE: BOWMAN/PDC 8/29/2023

FIGURE ES-4
Conceptual Design - Site Plan
Fenton Parkway Bridge Project EIR

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1 Introduction and Existing Environmental Setting

This chapter provides an overview of the organization and content of the environmental impact report (EIR) prepared for the proposed San Diego State University (SDSU) Fenton Parkway Bridge Project (project) in accordance with the California Environmental Quality Act (CEQA), the CEQA Guidelines, and California State University (CSU) policies and procedures. In addition, this chapter summarizes the existing project site and location; briefly describes the proposed project; provides an overview of the existing environmental setting, background, history, and planning context; and discusses the proposed project's environmental review process.

1.1 Environmental Impact Report Organization and Content

This EIR is organized to provide an analysis of the potentially significant environmental impacts, feasible mitigation measures, and reasonable alternatives associated with the proposed project. All elements of the proposed project are analyzed at a project level, including the two different construction methods proposed (pre-cast and cast-in-place).

To describe the potentially significant direct, indirect, and cumulative impacts and mitigation measures and alternatives of the proposed project, this EIR is organized as follows:

- **The Executive Summary,** provides an overview of the proposed project and a table summarizing the results of the environmental impacts analysis described in this EIR, along with the proposed mitigation measures and alternatives identified to avoid or substantially lessen each significant impact.
- **Chapter 1, Introduction and Existing Environmental Setting,** provides an overview of the EIR; the existing environmental setting; the proposed project's applicable background, regional, and local planning context; and the environmental review procedures for the proposed project.
- **Chapter 2, Project Description,** provides the project location, project objectives, detailed project description, and required discretionary approvals needed to implement the proposed project. The chapter includes detailed figures and tables related to the proposed project.
- **Chapter 3, Environmental Analysis,** summarizes the format of each environmental analysis section; identifies the potentially cumulatively considerable related projects that the environmental topic sections used to evaluate cumulative impacts; and analyzes the potentially significant environmental impacts identified for the proposed project, as well as the proposed mitigation measures to avoid or substantially lessen any identified significant impacts.
- **Chapter 4, Other Environmental Considerations,** discusses growth-inducing impacts of the proposed project, impacts determined to be less than significant, environmental areas where significant environmental effects cannot be avoided, and any significant irreversible environmental changes resulting from project implementation.
- **Chapter 5, Project Alternatives,** discusses a range of reasonable alternatives to the proposed project, including the No Project Alternative, Stadium Re-Use Alternative, Reduced Density Alternative, Stadium and Park Only Alternative, and Alternative Stadium Site Alternative.

- **Chapter 6, List of Preparers,** lists all individuals that participated in the preparation of this EIR.

The EIR appendices consist of technical studies prepared for the proposed project, as listed in the EIR Table of Contents.

1.2 Brief Description of the Existing Site, Project Background, and Proposed Project

1.2.1 Existing Site

The project site is located in the northeast portion of the Mission Valley community, in the central portion of the City of San Diego (City) metropolitan area. The project site is south of Fenton Parkway and the Fenton Marketplace and north of Camino Del Rio North and would connect these two roadways. The San Diego River bisects the project site from east to west. The site is located within the City's Multi-Habitat Planning Area (MHPA), as well as the City's Stadium Wetland Mitigation Site (no credit area). Currently, the project site includes portions of existing roadways to the south, SDSU Mission Valley (park/open space), ruderal areas, and undisturbed river/riparian areas.

Surrounding uses include commercial and residential uses to the north, the SDSU Mission Valley development (including Snapdragon Stadium) to the northeast, office and healthcare uses to the south, and open space to the east, including the San Diego River. The bridge would traverse and be adjacent to the City's MHPA and the City's Stadium Wetland Mitigation Site (no credit area).

The project site is surrounded by four major freeways—Interstate (I) 15, I-8, I-805, and State Route 163—accessed via Friars Road. The existing Metropolitan Transit System Trolley Green Line and Fenton Parkway Station are located on the north bank of the San Diego River, northwest of the project site.

1.2.2 Project Background

The Fenton Parkway Bridge has been contemplated in the City's long-range planning documents for the Mission Valley community for more than 30 years as a local facility that would serve the needs of the Mission Valley community and benefit the public. The proposed project is referenced in the Mission Valley Community Plan (City in 2019) and would connect residents and businesses south of the San Diego River to land uses north of the river off Friars Road, including the SDSU Mission Valley development, which was approved by the Trustees of the CSU in 2020 (City of San Diego 2019).

As part of the purchase and sale agreement between SDSU and the City for the SDSU Mission Valley site, which was executed in August 2020, SDSU agreed to help fund the planning, design, and construction of the Fenton Parkway Bridge. In furtherance thereof, and pursuant to a Memorandum of Understanding between SDSU and the City and City Ordinance No. O-21564, SDSU has agreed to plan, design, and construct the bridge to City transportation department design standards on behalf of the City. Once constructed, the City would assume operation and maintenance obligations for the bridge. As outlined in the Memorandum of Understanding, SDSU is preparing the EIR and the Trustees of the CSU will serve as the lead agency under CEQA. The City will serve as a responsible agency under CEQA (see Section 2.7.3, Responsible Agencies, in Chapter 2). SDSU is also responsible for securing all environmental permits required from state and federal agencies.

1.2.3 Proposed Project Summary

SDSU is proposing to plan, design, and construct the project to connect Fenton Parkway, which currently terminates north of the river channel, with Camino Del Rio North, south of the river channel. The bridge would span the San Diego River in the Mission Valley community of the City. The proposed bridge would be constructed on real property owned by the City and upon the completion of construction, the City would own, operate, and maintain the proposed bridge. The project would involve construction of a vehicular and pedestrian bridge spanning the San Diego River from north to south. The design and construction of the approach roadways and bridge would comply with applicable City, County of San Diego, and California Department of Transportation design standards, as well as American Association of State Highway and Transportation Officials guidelines.

1.3 Existing On-Site Uses

As previously described, the project site is located in the northeast portion of the Mission Valley community, in the central portion of the City's metropolitan area. The project site is south of Fenton Parkway and the Fenton Marketplace and north of Camino Del Rio North and would connect these two roadways. The San Diego River bisects the project site from east to west. Surrounding uses include commercial and residential uses to the north, the SDSU Mission Valley development (including Snapdragon Stadium) to the northeast, office and healthcare uses to the south, and open space to the east and west, including the San Diego River. The bridge would traverse and be adjacent to the City's MHPA and the City's Stadium Wetland Mitigation Site.

1.3.1 Multiple Species Conservation Program

The Multiple Species Conservation Program (MSCP) was developed to preserve a network of sensitive habitat and open space, protecting biodiversity and enhancing the quality of life in the San Diego region. The City is one of several jurisdictions participating in the MSCP, which covers 85 species and core biological resource areas within the City's MHPA. The City also has entered into an Implementing Agreement with federal and state wildlife agencies (U.S. Fish and Wildlife Service and California Department of Fish and Wildlife) to ensure implementation of the MSCP. The MSCP Plan guides the preparation of individual subarea plans for each jurisdiction within the MSCP boundary.

The City's Subarea Plan guides the establishment of the City's MHPA preserve system. The Implementing Agreement grants the City permit authority over those plants and animal species listed as threatened or endangered under federal and state Endangered Species Acts and covered by the City's Subarea Plan. The project site is within the MHPA. For further information regarding the MSCP and the City's Subarea Plan, please refer to Section 3.3, Biological Resources, of this EIR.

1.4 Environmental Procedures

1.4.1 California Environmental Quality Act

CEQA requires preparation and certification of an EIR for any project that a lead agency determines may have a significant effect on the environment. This EIR was prepared in compliance with CEQA, the CEQA Guidelines, and CSU policies and procedures and is prepared as a Project EIR pursuant to CEQA Guidelines Section 15161. The EIR represents the independent judgment of the CSU Board of Trustees as lead agency.

1.4.2 Notice of Preparation and Scoping

CEQA establishes mechanisms whereby the public and affected public agencies can be informed about the nature of the project being proposed and the extent and types of impacts that the project and its alternatives would have on the environment should the project or alternatives be implemented. Pursuant to CEQA Guidelines Section 15082, SDSU circulated a Notice of Preparation (NOP) dated May 22, 2023, to interested agencies, organizations, and individuals. The NOP was also sent to the State Clearinghouse at the California Governor's Office of Planning and Research. The State Clearinghouse assigned a state identification number (SCH No. 2023050534) to this EIR.

The NOP is intended to encourage interagency communication regarding the proposed project so that agencies, organizations, and individuals are afforded an opportunity to respond with specific comments and/or questions regarding the scope and content of the EIR to be prepared. One public scoping meeting was held at the Mission Valley Library (2123 Fenton Parkway, San Diego, California, 92108) on May 22, 2023, to gather additional public input. The 30-day comment period ended on June 30, 2023.

Comments received during the NOP public scoping period were considered during preparation of this EIR. The NOP and all comments received by SDSU are included in Appendix A to this EIR. Oral and written comments were also received at the public scoping meetings. Based on the scope of the proposed action as described in the NOP and the comments received from the public, the following issues were determined to be potentially significant and, therefore, are addressed in Chapter 3 of this EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

Additional CEQA-mandated environmental issue areas, such as agricultural and forestry resources, mineral resources, population and housing, and public services were found not to be significant during the NOP process. These issues are addressed in Chapter 4.

1.4.3 Overview of the Environmental Impact Report Process

This EIR has been made available to members of the public, agencies, and interested parties for a 60-day public review period in accordance with CEQA Guidelines Section 15105. Public review of the Draft EIR is intended to focus "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated." The Notice of Completion of the Draft EIR has been filed with the State Clearinghouse as required by CEQA Guidelines Section 15085. In addition, the Notice of Availability of the Draft EIR has been distributed pursuant to CEQA Guidelines Section 15087. This EIR is available for review during the 60-day public review period at the following locations:

- SDSU website: https://bfa.sdsu.edu/campus/facilities/planning/eir

- Mission Valley Public Library, 2123 Fenton Pkwy, San Diego, California 92108

Once the 60-day public review period has concluded, the CSU Board of Trustees will review all public comments on the Draft EIR, provide a written response to comments, and authorize revisions to the Draft EIR text, if necessary. A mitigation monitoring and reporting program will be incorporated into the Final EIR, and it will include monitoring team qualifications, specific monitoring activities, a reporting system, and criteria for evaluating the success of the mitigation measures. Mitigation measures contained in this EIR were developed in consideration of future monitoring requirements and written in enough detail to address impacts of the proposed project, referencing the appropriate implementing permits and plans. The Final EIR will include all comment letters received on the Draft EIR; responses to comments; a Final EIR preface; and, if applicable, edits made to the EIR as a result of public review.

1.4.4 Scope of the Environmental Impact Report

This EIR evaluates the potential short-term (during construction), long-term (post-construction), direct, indirect, and cumulative environmental impacts associated with construction and operation of the proposed project.

1.5 Reference Notes

As a state agency, the CSU is not subject to local government planning regulations such as policies and guidelines outlined in the City of San Diego General Plan. Notwithstanding, the CSU considers local agencies and related planning documents where feasible. Accordingly, any reference to local planning documents is generally provided for informational purposes only unless otherwise noted. For this reason, the EIR references certain City planning documents, including the City's General Plan and associated documents.

1.6 Mitigation Monitoring and Reporting Program

As required by CEQA Guidelines Sections 15097 and 15091, the CSU Board of Trustees will prepare a mitigation monitoring and reporting program prior to project approval. The mitigation monitoring and reporting program will include all mitigation measures identified in the EIR, the entity responsible for implementation, implementation timing (prior to construction, during construction, and/or after construction), and any follow-up reporting requirements (such as submittal of materials to regulatory agencies). The CSU Board of Trustees, as the designated lead agency for the project, is responsible for enforcing and verifying that each mitigation measure is implemented.

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2 Project Description

2.1 Introduction

San Diego State University (SDSU) is proposing construction of the Fenton Parkway Bridge Project to connect Fenton Parkway, which currently terminates north of the San Diego River channel, with Camino Del Rio North, south of the river channel. The Fenton Parkway Bridge would span the river in the Mission Valley community of the City of San Diego. The proposed bridge would be constructed on real property owned by the City and, upon the completion of construction, the City would own, operate, and maintain the proposed bridge.

2.1.1 Project Location and Existing Conditions

The project site is located in the northeast portion of the Mission Valley community, in the central portion of the City of San Diego metropolitan area (see Figure 2-1, Project Vicinity and Location). A portion of the project site is within the City's Stadium Wetland Mitigation Site (no credit area), which is a 57-acre advanced permittee-responsible compensatory mitigation site that generates wetland mitigation credits for use in connection with infrastructure projects for the City.

The project site is situated south of Fenton Parkway and the Fenton Marketplace and north of Camino Del Rio North and would connect these two roadways. The river bisects the project site from east to west. Surrounding uses include commercial and residential uses to the north, the SDSU Mission Valley development (including Snapdragon Stadium) to the northeast, office and healthcare uses to the south, and open space, including the San Diego River, to the east and west. The bridge would be located within the City's Multi-Habitat Planning Area and the City's Stadium Wetland Mitigation Site (no credit area). 23

The project site is surrounded by four major freeways—Interstate 15, Interstate 8, Interstate 805, and State Route 163—accessed via Friars Road. The existing Metropolitan Transit System (MTS) Trolley Green Line and MTS Fenton Parkway Trolley Station are located on the north bank of the river, northwest of the project site as shown in Figure 2-1 and Figure 2-2, Project Site.

2.1.2 Project Background

The Fenton Parkway Bridge has been contemplated in the City's long-range planning documents for the Mission Valley community for more than 30 years as a local facility that would serve the needs of the Mission Valley community and benefit the public. The proposed project is referenced in the Mission Valley Community Plan (adopted by the City in 2019) and is a long-sought infrastructure enhancement in the Mission Valley community as a means of connecting residents and businesses south of the river to land uses north of the river off Friars Road, including the SDSU Mission Valley development, which was approved by the Trustees of the California State University (CSU) in 2020. SDSU Mission Valley includes Snapdragon Stadium and will include parks, open space, and new residential, commercial, and innovation district uses. The proposed project would facilitate an additional vehicular, bicycle, and pedestrian connection between the businesses and residential areas north and south of the river.

The City considers the proposed project an Essential Public Project (EPP) pursuant to the City's Land Development Code. Several key concepts behind identifying this proposed bridge project as an Essential Public Project are outlined in the City's January 4, 2024, letter to the U.S. Fish and Wildlife Service and California Department of Fish and Game and are summarized below. The full extent of the City's rationale can be found in Appendix A, which includes the January 4, 2024, letter in its entirety.

General transportation planning principals and the City's General Plan encourage a grid network of streets to provide accessibility, reduced travel distances, resiliency and to distribute traffic loads. In Mission Valley, steep slopes, the San Diego River, five freeways and the San Diego Trolley tracks have created barriers and limited the opportunities for connectivity within as well as to and from the community. This has resulted in a planned street network that consists of fewer and wider streets and intersections to accommodate the movement of people and goods, which in turn results in less distributed/more concentrated traffic flows, turning many of these streets and intersections into barriers in and of themselves, especially for transit users, cyclists and pedestrians. Given the limited planned north-south street connectivity in Mission Valley, completion of the Fenton Parkway connection is essential to meet the mobility, emergency, utility and equity needs of the community and the City (City of San Diego, January 4, 2024).

Supporting active transportation (walking, biking and transit) mode shifts is an important component of the City's Climate Action Plan (CAP) which aims to achieve net zero greenhouse gas emissions by Year 2035. The CAP targets include resident mode shares of 25% walking, 10% cycling and 15% transit by year 2035. The Fenton Parkway connection is critical to provide a safer and higher quality/lower stress environment for pedestrians and cyclists to help achieve the City's CAP targets, including providing access for Mid-City residents to the San Diego Trolley and the SDSU Mission Valley Campus via the I-15 bikeway (City of San Diego, January 4, 2024). The lack of a connection at Fenton Parkway also greatly increases the amount of out-of-direction vehicular travel within eastern Mission Valley. Out-of-direction travel from inefficient routing significantly contributes to increased greenhouse gas emissions. Reducing out-of-direction travel through improved local connectivity is a crucial step towards mitigating the detrimental effects of greenhouse gas emissions and meeting the City's Climate Action Planning Goals. (City of San Diego, January 4, 2024).

As stated in the City's January 4, 2024 letter, during recurring flooding events in Mission Valley, every street crossing the San Diego River and some roadways adjacent to the river become impassable. The only way to travel across the San Diego River on the east side of Mission Valley during these events is via I-15. Since pedestrians and cyclists cannot use the freeway, they are unable to cross the river during flooding events. The Fenton Parkway Bridge will remedy this issue providing a high-water crossing of the San Diego River that also provides access to the San Diego Trolley, SDSU Mission Valley Development and the Mid City communities via the I-15 Bike Path (City of San Diego, January 4, 2024).

As land uses within Mission Valley have continued to intensify, largely in part due to the presence of the San Diego Trolley and its central location, a growing strain on emergency services has continued. Based on planned growth in Mission Valley, which is expected to increase by 248% between 2012 and 2050 (MVCPU EIR Table 3.4-1, Buildout Summary), the City recommended the Fenton Parkway connection over the San Diego River. The proposed bridge would provide multiple approach route options for emergency response and alternate routes for diverting traffic during emergencies thereby avoiding road closures. This planned connection is particularly important because there are often multiple responders to an incident who need access from different directions to the area (City of San Diego, January 4, 2024). In addition, the project site is within the VHFHSZ as mapped by CAL FIRE and a new access point to protect city-owned land including environmentally sensitive habitats would be beneficial.

As part of the purchase and sale agreement between SDSU and the City for the SDSU Mission Valley site, which was executed in August 2020, SDSU agreed to help fund the planning, design, and construction of the Fenton Parkway Bridge. In furtherance thereof, and pursuant to a memorandum of understanding (MOU) between SDSU and the City and City Ordinance No. O-21564, SDSU has agreed to plan, design, and construct the bridge to City transportation department design standards on behalf of the City. As described in the MOU, SDSU and the City have agreed to work collaboratively on the bridge project; SDSU is responsible for planning, design, environmental review and permitting, and construction of the bridge, in conjunction with City review and input. Additionally, SDSU and the City would share the costs of the project. Once constructed, the City would assume ownership, operation and maintenance obligations for the bridge.

As outlined in the MOU, SDSU is preparing the environmental impact report (EIR) and the Trustees of the CSU will serve as the lead agency under the California Environmental Quality Act (CEQA). The City will serve as a responsible agency under CEQA (see Section 2.7.3, Responsible Agencies). SDSU is also responsible for securing all environmental permits required from state and federal agencies.

2.2 Project Elements

The project would involve construction of a vehicular and pedestrian bridge spanning the river from north to south (see Figure 2-2). The design and construction of the approach roadways and bridge would comply with applicable City, County of San Diego, and California Department of Transportation design standards, as well as American Association of State Highway and Transportation Officials guidelines.

2.2.1 Bridge Design and Mobility Improvements

The proposed design for the bridge is a conventional prestressed concrete girder structure. This bridge design can be accomplished by way of two different construction methods, pre-cast, or cast-in-place. A pre-cast construction method uses bridge components that are manufactured off-site and assembled onsite. For a cast-in-place construction method, concrete is poured and cured in forms onsite to create a structural element in its final position. Both construction methods were fully analyzed as part of the proposed project and throughout this EIR.

The bridge would be approximately 450 feet long, 58 feet wide, and 7 feet, 6 inches deep, and would consist of up to four spans. The spans would be supported on concrete seat-type abutments in the river embankments at each end and two to three piers within the river channel, each consisting of two to three approximately 20-foot-tall, 6-foot-diameter circular concrete columns.

Each abutment would be supported on eight 4-foot-diameter, cast-in-drilled-hole concrete piles, and each of the columns would be supported on a single 8-foot-diameter cast-in-drilled-hole concrete pile. Piles are currently estimated to be drilled to depths of between 50 and 200 feet below existing grade. Each of the abutments will be protected with energy dissipating riprap that will be buried to allow for post-construction habitat restoration over the riprap. Allowing this habitat restoration will ensure that post construction replanting fosters wildlife use following completion of the bridge.

Standard cobra head light fixtures would be mounted on concrete pedestals behind the bridge barrier. Selected lighting would generally be consistent with local (i.e., Community Plan and San Diego River Park Master Plan) policies concerning installation of LED streetlights with adaptive controls, shielding of fixtures, provision of adequate lighting for pedestrian and cyclists, and protection of biological resources. During final design, the specific types of

light poles, arms, and luminaires would be adjusted if necessary to suit aesthetics. Given the sensitive environmental nature of the river below and to ensure consistency with the City's Multi-Habitat Planning Area Land Use Adjacency Guidelines, lighting would be minimized and oriented away from sensitive biological resources as much as possible to reduce light spillover.

The bridge would connect the southern terminus of Fenton Parkway to the northern terminus of Camino Del Rio North/Mission City Parkway. The new bridge would include two 11-foot-wide through-traffic lanes and a 10-foot-wide center lane that would be used for southbound left-turn movements onto Camino Del Rio North. The 10-foot-wide center lane would provide an optional additional traffic lane for flexible use during stadium or emergency events.

Combined bicycle and pedestrian pathways would be installed and raised above the travel lanes on either side of the bridge. The 6.5-foot-wide bike lane would be separated from a 5.5-foot-wide pedestrian path by a 6-inch-wide strip of yellow truncated domes (see Figure 2-3, Project Site Plan).

2.2.2 Utilities

Existing utilities in the project area include a 96-inch reinforced concrete pipe storm drain on the north side of the proposed bridge and a 54-inch storm drain along the proposed southern terminus of the bridge at Camino Del Rio North, both of which discharge directly into the river. These existing storm drains would require relocation and/or extension during project construction to accommodate storm drain outfalls into the river without impacting the bridge's structural integrity.

The 96-inch reinforced concrete pipe storm drain located near the northern terminus of the bridge would be extended south to accommodate the Fenton Parkway extension and abutments of the proposed bridge. Extension of the existing storm drain would require removal of the existing headwall and construction of a new headwall at the end of the extended 96-inch reinforced concrete pipe storm drain.

The existing 54-inch storm drain located near the southern terminus of the bridge would conflict with the proposed bridge abutment location. As a result, the storm drain would be relocated west of the proposed south bridge abutment. The outlet of the storm drain would require construction of a new headwall with riprap at the outfall for erosion protection and energy dissipation.

The proposed bridge would include 24-inch cells that could accommodate potential future wet utilities. Wet utility extensions through the bridge cells are not part of the proposed project.

2.2.3 Public Right-of-Way Improvements

Fenton Parkway and River Park Road Intersection

The Fenton Parkway and River Park Road intersection, which is currently under construction, would be expanded to a three-legged configuration with the new bridge approach forming the south leg of the intersection. The intersection would be signalized and include pedestrian crossing features such as high-visibility crosswalks, pedestrian-initiated interval phasing, and pedestrian countdown timers. The existing striped bike lanes on Fenton Parkway north of the trolley tracks would be extended to River Park Road; these lanes would lead to ramps connecting the elevated bike lanes on the new bridge.

A three-way signal would be installed at the Fenton Parkway and River Park Road intersection. Coordination with MTS will occur prior to signal installation to ensure safe queuing related to the trolley line.

Mission City Parkway and Camino Del Rio North Intersection

The Mission City Parkway and Camino Del Rio North intersection would be expanded from a three-way signal-controlled intersection under existing conditions to a four-way signal-controlled intersection, with the Fenton Parkway extension on the new bridge forming the new north leg. The existing traffic signal would be modified to include new signal heads for the Fenton Parkway approach, as well as pedestrian crossing features such as high-visibility crosswalks, pedestrian-initiated interval phasing, and crosswalk countdown timers. The center lane on the bridge would lead into a new southbound left-turn lane at Camino Del Rio North, and a new dedicated left-turn lane would be striped on eastbound Camino Del Rio North to allow left turns onto the bridge. The south leg of the intersection would be restriped to include a shared through/right-turn lane in addition to a separate northbound left-turn lane to Camino Del Rio North.

The west leg of the intersection would be re-striped to include a westbound bike lane for approximately 225 feet to connect to the existing bike lane further west. Appropriate connections for bicyclists on Mission City Parkway would be made based on the current facilities on that roadway.

2.2.4 Design Standards and Energy Efficiency

In May 2014, the Trustees broadened sustainable practices to all areas of the CSU. The state also strengthened energy efficiency requirements in the California Green Building Standards Code (Title 24 of the California Code of Regulations). All CSU new construction, remodeling, renovation, and repair projects will be designed with consideration of optimum energy utilization, low lifecycle operating costs, and compliance with all applicable energy codes and regulations. Progress submittals during design are monitored for individual envelope and mechanical system performances. The CSU Mechanical Review Board, established in February 2004, considers proposed building designs for conformance with code and energy efficiency practices (CSU 2018/2019).

As part of CSU's broadened commitment to sustainable practices, also in May 2014, the CSU Board of Trustees adopted the first systemwide Sustainability Policy. In May 2022, the CSU Sustainability Policy was updated to expand on existing sustainability goals (CSU 2022). The Sustainability Policy applies sustainable principles across all areas of university operations, expanding beyond facilities operations and utility management. This expansion was both a reaction to and a catalyst for a changing sustainability landscape within the CSU and higher education in general. The 2022 Sustainability Policy seeks to integrate sustainability into all facets of the CSU, including academics, facilities operations, the built environment, and student life (CSU 2022).

In 2022, the City's 2022 Climate Action Plan was approved and signed into law. The Climate Action Plan establishes a goal of net zero energy use by 2035, committing San Diego to an accelerated trajectory for greenhouse gas reductions (City of San Diego 2022). Strategy 3 of the Climate Action Plan, Mobility and Land Use, identifies City plans and programs intended to support mobility needs in the community. In particular, the City is looking to prioritize infrastructure projects that support sustainable mode choices, including walking, bicycling, ride-sharing, and public transit use. Additional City goals and policies intended to enhance sustainability and mobility initiatives are outlined in the Mobility Element of the City's General Plan. Specific measures include conducting Corridor Mobility Studies, which offer recommendations for multimodal street design and improvements for existing roadways (City of San Diego 2015).

The SDSU CAP was adopted in May 2017 to provide goals and strategies to achieve carbon neutrality and improve sustainability efforts campus-wide. The CAP includes results of a baseline emissions inventory that summarizes GHG emissions from campus operations in 2015 and projected emissions to future years to inform development of appropriate reduction strategies. While the SDSU CAP does include goals and strategies that would result in a reduction of GHG emissions at the proposed project site, the SDSU CAP is not considered qualified per CEQA Guidelines Section 15183.5. Additionally, the CAP was prepared with focus on the SDSU main campus location in the College Area of the City of San Diego. Therefore, inclusion of this plan is for informational purposes only.

2.3 Project Construction and Phasing

The construction method used (pre-cast or cast-in-place) would occur in two phases, site preparation and bridge construction. Site preparation and bridge construction activities are generally the same for both construction methods except as described herein.

2.3.1 Phase 1 – Site Preparation

Prior to the commencement of pre-cast or cast-in-place construction activities, the project site would be surveyed and fenced, followed by clearing and grubbing of the construction disturbance area. Any necessary stormwater best management practices or temporary fencing or catchment dams to establish bridge pier work areas will be established during this initial site preparation phase. No vegetation clearing, removal, and/or disturbance would occur outside of the bridge impact boundaries shown in Figure 2-2. Phase 1 is estimated to occur over a period of 3 weeks for both the pre-cast and the cast-in-place construction methods. Construction equipment for Phase 1 would include a bulldozer, scraper, grader, excavator, loader, water truck, rock trucks, and dump trucks. In order to construct the new bridge within the San Diego River channel, a temporary pathway (i.e., small berm and trestle) would be constructed to provide ground stabilization for equipment access and to serve as operational pads for the equipment. The temporary pathway would not impede the low flow river channel and it would be constructed of large stabilization riprap to be removed or reused for energy dissipation riprap once construction is complete. Imported fill to construct fill slopes for bridge abutment footings would also be required.

2.3.2 Phase 2 – Bridge Construction

Following the necessary soil improvement and construction of fill slopes involving approximately 15,000 cubic yards of imported fill, the bridge abutment footings would be excavated from the embankments to install deep cast-in-drilled-hole concrete piles. This excavation may require temporary shoring along Camino Del Rio North. Larger cast-in-drilled-hole piles would also be installed at each of the bridge column locations. Excavation of approximately 4,000 cubic yards of soil would be required for bridge abutment footings, piers, riprap, and utility relocations. Groundwater dewatering may also be necessary given the very high water table. Groundwater dewatering, if necessary, would be done in compliance with NPDES regulations and would require a groundwater discharge permit through the City of San Diego. The maximum depth of remedial grading excavation is anticipated to extend to approximately 5 feet above measured groundwater levels. Following the deep pile foundation installation, concrete bridge abutments and columns would be formed and poured, along with a large concrete retaining wall extending about 100 feet northward from the bridge along the west side of the roadway.

Bridge superstructure construction would follow and would involve either casting concrete pumped into forms supported on temporary falsework supports for the cast-in-place construction method or lifting precast concrete girders into position atop the columns for the pre-cast construction method. In either case, the bridge deck would

then be cast in place and finished to the correct profile. Concrete sidewalks, barriers, lights, and metal railings would then be installed along the length of the bridge. Once access to the river channel is no longer required for construction activities, riprap would be installed around each abutment for erosion protection and energy dissipation. Once the riprap is buried, the riverbed would be recontoured to mirror existing conditions. Additionally, areas where native vegetation would be removed during Phase 1 of the project would be reseeded or replanted with appropriate native plant species in accordance with the Conceptual Restoration Plan. These restored areas would be monitored consistent with City's Stadium Wetland Mitigation Site and resource agency permit requirements to ensure success.

For both the pre-cast and cast-in-place construction methods, Phase 2 is estimated to require a construction period of up to 57 weeks and would require a total of approximately 300 construction personnel across the duration of construction activities.

2.3.3 Hours of Construction

In general, construction activities would be limited to between 7:00 a.m. and 5:30 p.m. Monday through Saturday, which would be consistent with the provisions of the City's noise ordinance. However, limited nighttime and Sunday work may be required.

2.3.4 Construction Laydown and Staging Areas

Project construction laydown and staging areas would be located either south of the proposed bridge, on the City-owned undeveloped property east of Mission City Parkway and west of Camino Del Rio North, and/or within the City-owned land west of the proposed bridge and the SDSU-operated park space south of River Park Road (see Figure 2-2).

2.3.5 Anticipated Road Closures and Traffic Control Measures

It is not anticipated that any road closures would be necessary for the construction of the bridge. Existing travel lanes on Camino Del Rio North may be shifted or narrowed to accommodate bridge construction and replacement/relocation of traffic signal poles, curbs, gutters, and sidewalks. The majority of construction activity would occur outside of existing roadways. However, targeted lane closures to complete the traffic signal and striping adjustments at Camino Del Rio North at Mission City Parkway are anticipated. Temporary traffic control measures (e.g., lane closures, signage) would be provided during such closures, as well as around identified construction laydown/staging areas.

2.4 Project Maintenance

Once operational, the City would engage in routine street sweeping and debris removal. The City would also maintain streetlights and roadway striping and ensure that all signage is maintained. Like all bridges owned and maintained by the City of San Diego, once constructed, the bridge would be added to the City's operations and maintenance schedule which would include periodic inspection, potential improvements and long-term structural monitoring.

2.5 Project Goals and Objectives

The underlying purpose of the project is to meet the needs of the communities north and south of the river by improving local and regional connectivity. These objectives are informed by and reflect the City's vision for a Fenton Parkway crossing described in the Mission Valley Community Plan Update (adopted September 2019), with the exception that the proposed project involves a three-lane road compared to a four-lane road as envisioned in the MVCPU. It should also be noted that per the City of San Diego's Land Development Code (LDC) (Section 143.0150(d)(1)(B)(iii)) the project is considered to be an Essential Public Project (EPP). The objectives of the project are as follows:

- Construct a multi-modal bridge over the San Diego River to improve north–south mobility in eastern Mission Valley by connecting the existing street network between I-805 and I-15.
- Provide accessible pedestrian and bicycle infrastructure that connects the communities south of the river to public open space and local and regional trail networks north of the river.
- Improve direct connectivity between residential neighborhoods and commercial office centers south of the river and residential, commercial, institutional, and public park lands and recreational amenities north of the river.
- Provide a high-water crossing in eastern Mission Valley.
- Improve emergency access between the communities north and south of the river in the eastern portion of the Mission Valley community, in support of San Diego Fire Department Station 45.
- Support multimodal transit by providing infrastructure to facilitate increased rider access to the MTS Trolley Green Line and the Fenton Parkway and Stadium Stations, for riders south of the river.
- Minimize temporary and permanent impacts to natural resources (shading, wildlife movement, native plant regrowth, etc.) consistent with the San Diego River Park Master Plan bridge design guidelines.
- Construct the bridge in a manner that minimizes temporary and permanent impacts to sensitive biological resources within the City's Stadium Wetland Mitigation Site.
- Minimize impacts to natural topography and sensitive biological resources.

2.6 Project Actions and Approvals

2.6.1 Intended Uses

This EIR analyzes the proposed project at the detailed "project" level of review and examines all phases of proposed project construction and operation. This EIR will be considered by the Trustees of the CSU to evaluate the potential environmental impacts associated with implementation of the proposed project. Additionally, this EIR could be relied upon by responsible agencies, including the City and/or state or local regulatory agencies, with permitting or regulatory approval of elements of the project.

SDSU is an entity of the CSU, which is the State of California acting in its higher education capacity. The CSU is therefore not subject to local government planning and land use plans, policies, or regulations when its development, construction, facilities, and uses are in furtherance of its governmental purpose. However, as the project site is on land owned by the City, and given the unique circumstances regarding the collaborative design, approval, construction, and operation of the proposed project, SDSU has agreed to consider certain local plans, policies, and regulations in connection with the bridge, pursuant to and as more particularly set forth in the MOU.

2.6.2 Requested Project Approvals

The following approvals by the CSU Board of Trustees are required prior to implementation of the proposed project:

1. Certification of adequacy and completeness of the CEQA document.
2. Other approvals as necessary.

Development of the proposed project may require permits and/or approvals issued by public agencies other than the CSU Board of Trustees. The following is a non-exclusive list of other project permits or approvals that may be required by other agencies:

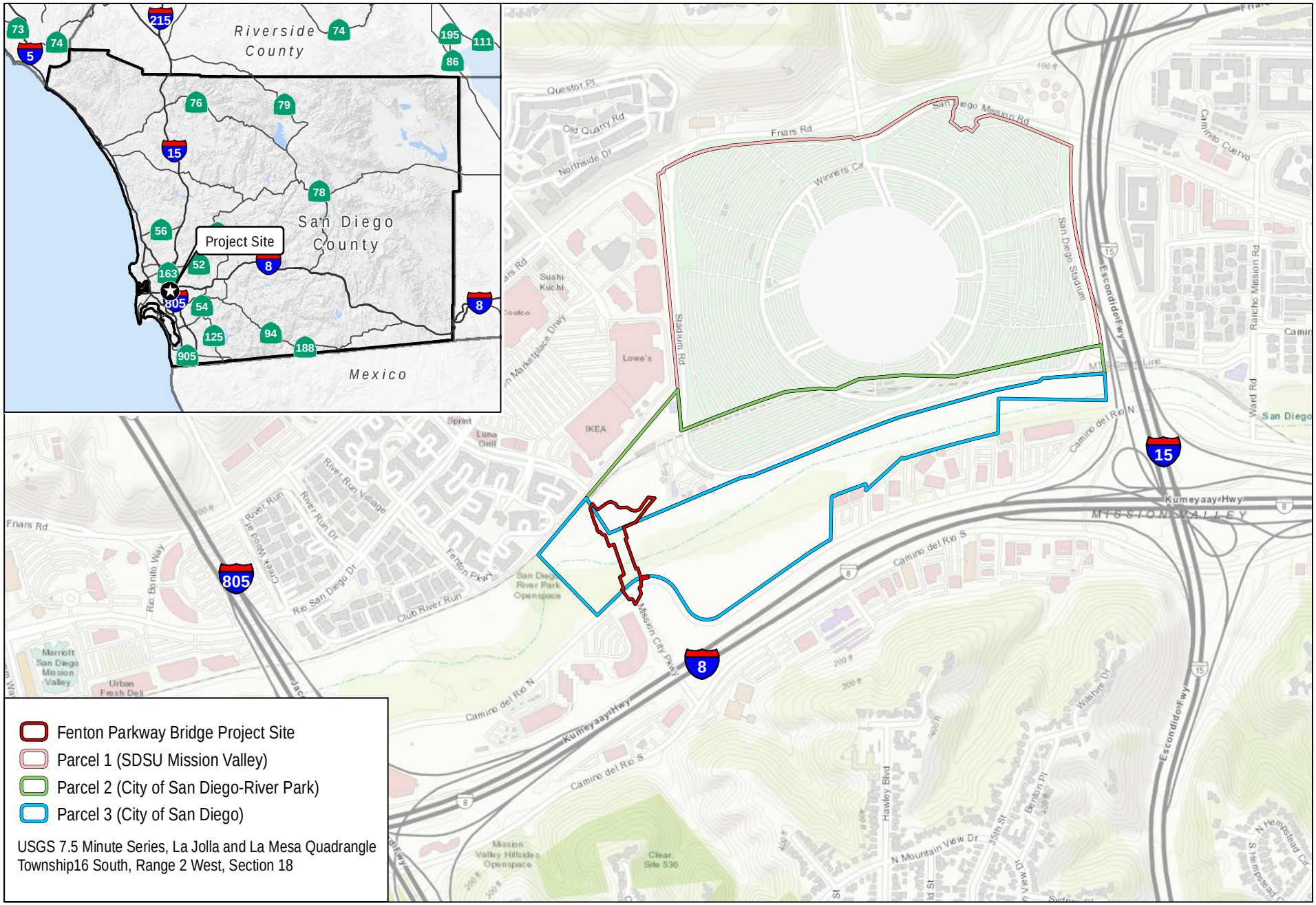
1. Consistency with the City's Land Development Code (LDC) Section 143.0110 and LDC Section 143.0150(d)(1)(B)(ii) (findings prepared by the City regarding the proposed project)
2. Approval of various easements, including vacations and replacements (issued by the City consistent with the terms of the MOU)
3. Permits to construct within the City's rights-of-way (issued by the City Engineering and Capital Projects Department, consistent with the terms of the MOU)
4. Temporary access/right of entry permits for work on City-owned land within the river and for the use of staging areas southeast of the Camino Del Rio North/Mission City Parkway intersection (issued by the City Department of Real Estate and Airport Management)
5. Authority to construct/permits to operate (issued by the San Diego County Air Pollution Control District)
6. Coordination for three-way signal at the Fenton Parkway and River Park Road intersection (coordination with MTS)
7. Right of access permit for work within the MTS right-of-way (issued by MTS)
8. Water Quality Certification pursuant to Section 401 of the Clean Water Act (issued by the San Diego Regional Water Quality Control Board)
9. Construction Stormwater Permit consistent with the National Pollutant Discharge Elimination System to ensure consistency with the Clean Water Act (reviewed by the City; issued by the San Diego Regional Water Quality Control Board)
10. Accessibility compliance (issued by the Division of the State Architect)
11. Approval of facility fire and life safety review (approval from the State Fire Marshal)
12. Lake and Streambed Alteration Agreement pursuant to Section 1602 of the State of California Fish and Game Code (issued by the California Department of Fish and Wildlife)
13. Biological Opinion and Incidental Take Statement under Section 7 of the Endangered Species Act (consultation with the U.S. Fish and Wildlife Service)
14. Department of the Army permit pursuant to Section 404 of the Clean Water Act (issued by the U.S. Army Corps of Engineers)

2.6.3 Responsible Agencies

Under CEQA, responsible agencies are public agencies other than the lead agency with discretionary approval authority over the proposed project. The above-listed agencies may determine they have some discretionary authority over one or more aspects of the proposed project; therefore, those agencies are identified at this time as potential responsible

agencies. Such agencies are ordinarily required to rely on the EIR prepared and certified by the lead agency (here, the CSU) when considering issuing a project permit or other approval for the proposed project.

Trustee agencies are state agencies having jurisdiction by law over natural resources affected by the proposed project that are held in trust for the people of the State of California. Due to the potential for impacts to special-status species or wetland areas or waters of the United States, the following agencies potentially would be trustee agencies: the U.S. Fish and Wildlife Service, the California Department of Fish and Wildlife, the Regional Water Quality Control Board, and the U.S. Army Corps of Engineers.



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SOURCE: ESRI MAPPING SERVICE; BOWMAN/PDC 5/08/2023

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FIGURE 2-1

Project Vicinity and Location

Fenton Parkway Bridge Project EIR

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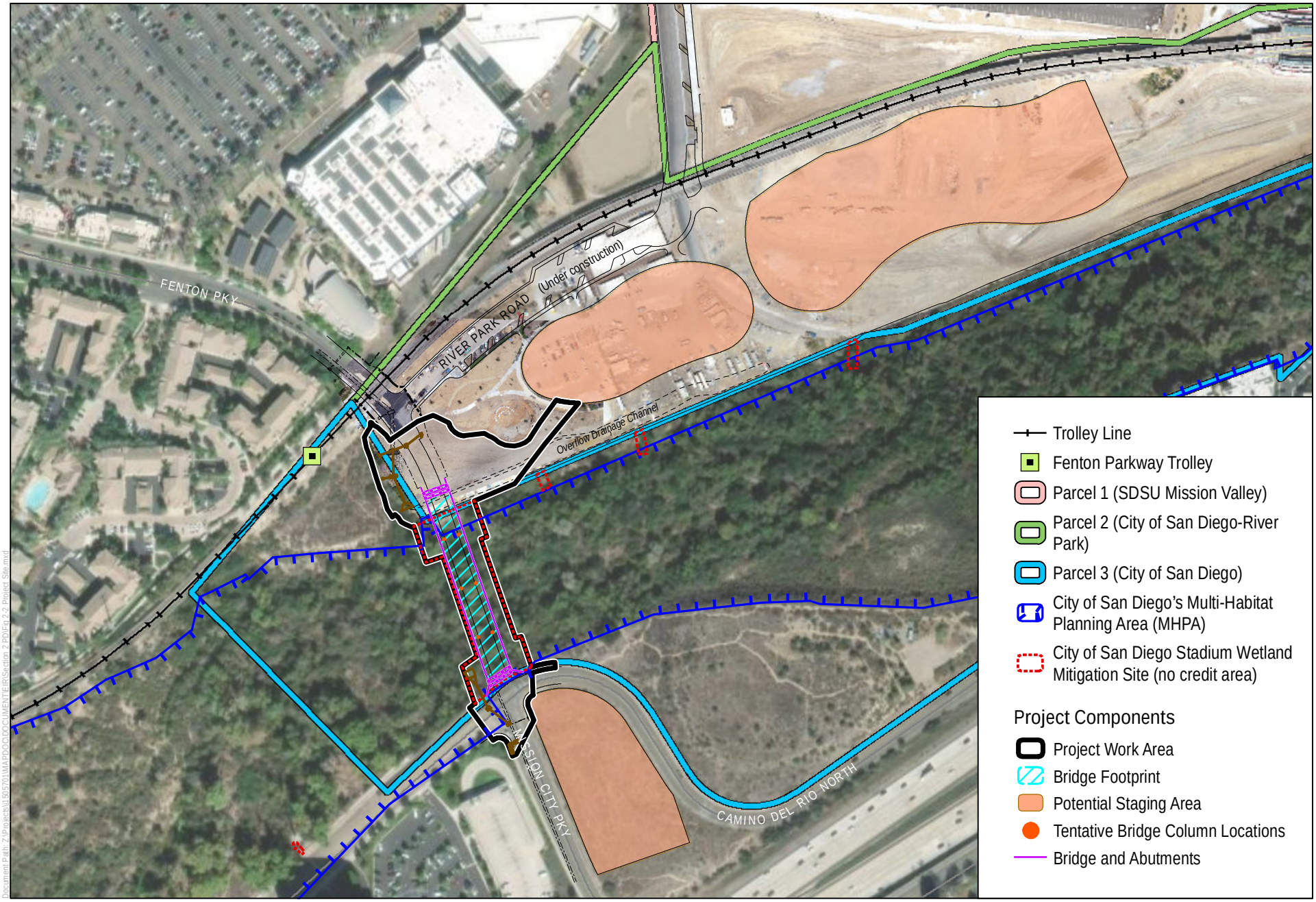

SOURCE: AERIAL-ESRI IMAGERY SERVICE 2022; SDSU IMAGERY AUGUST 2023; KLEINFELDER 2/8/2023
DEVELOPMENT-BOWMAN/PDC 5/08/2023; PARCELS-BOWMAN/PDC 3/27/2023; MHPA-CITY OF SAN DIEGO 2023

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FIGURE 2-2
Project Site
Fenton Parkway Bridge Project EIR

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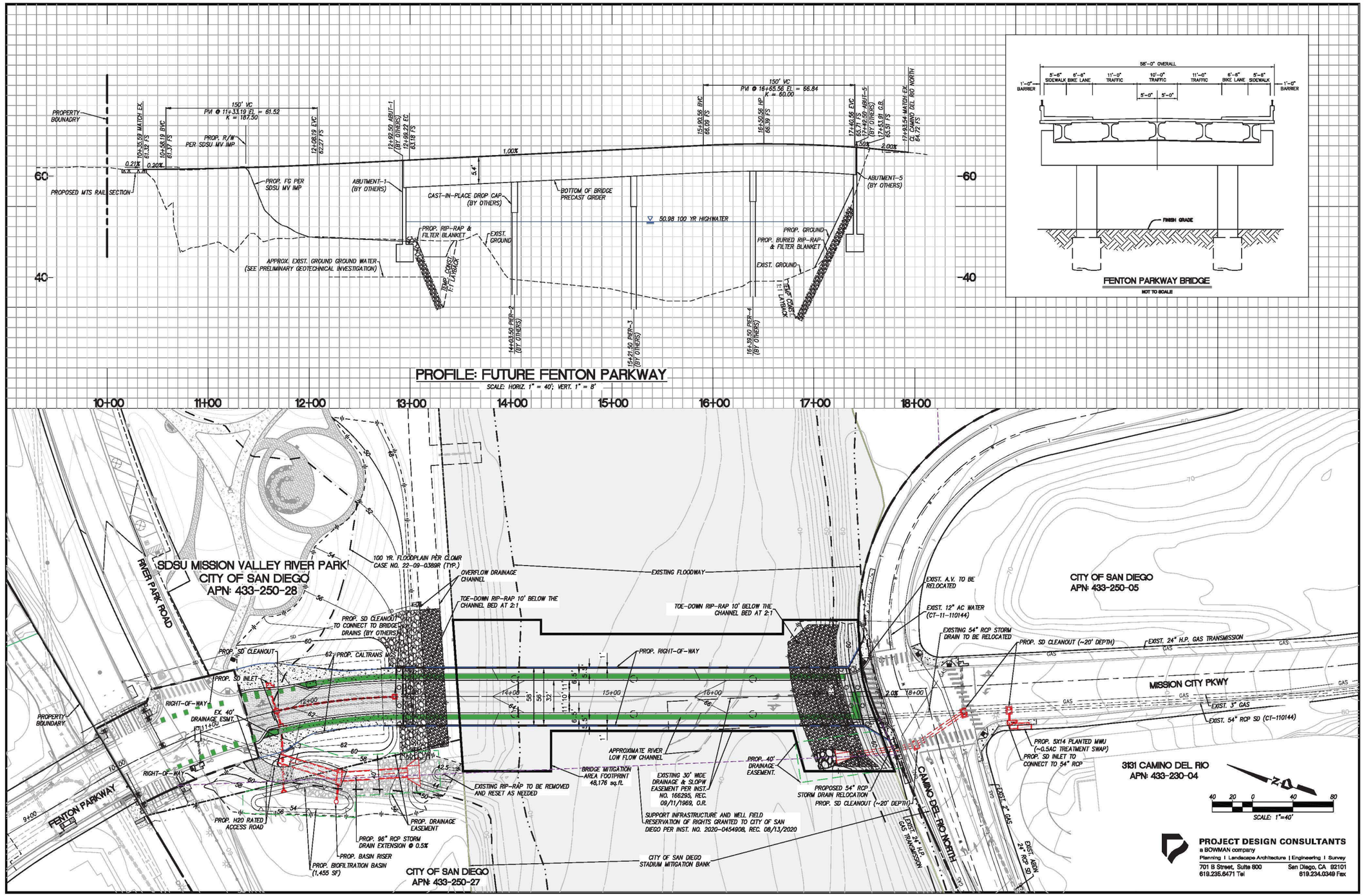

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SOURCE: BOWMAN/PDC 8/29/2023

FIGURE 2-3
Project Site Plan
Fenton Parkway Bridge Project EIR

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3.0 Environmental Analysis

Approach to Environmental Analysis

This draft environmental impact report (EIR) evaluates and discloses the environmental impacts associated with the Fenton Parkway Bridge Project (project), in accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000, et seq.) and the CEQA Guidelines (14 CCR 15000, et seq.). The proposed design for the bridge is a conventional prestressed concrete girder structure. This bridge design can be accomplished by way of two different construction methods, pre-cast, or cast-in-place. A pre-cast construction method uses bridge components that are manufactured off-site and assembled onsite. For a cast-in-place construction method, concrete is poured and cured in forms onsite to create a structural element in its final position. Both construction methods were fully analyzed as part of the proposed project and throughout this EIR.

It has been determined that buildout of the Fenton Parkway Bridge would not significantly affect a number of environmental resource topics. Under the CEQA statute and CEQA Guidelines, a lead agency may limit an EIR's discussion of environmental effects when such effects are not considered potentially significant (California Public Resources Code, Section 21002.1[e]; 14 CCR 15128, 15143). Information used to determine which impacts would be potentially significant was derived from review of the proposed project, review of applicable planning documents and CEQA documentation, fieldwork, feedback from public and agency consultation, and comments received on the Notice of Preparation (see Appendix A of this Draft EIR). Summary discussions of the project effects found not to be significant are presented in Chapter 4, Other Environmental Considerations.

Sections in Chapter 3 of this EIR present a detailed discussion of regulatory background, existing conditions, environmental impacts associated with construction and operation of the project, mitigation measures to reduce the level of impact, and residual level of significance (i.e., after application of mitigation, including any impacts that would remain significant and unavoidable after application of all feasible mitigation measures). Mitigation measures are identified, as feasible, to avoid, minimize, rectify, reduce, or compensate for significant or potentially significant impacts, in accordance with CEQA Guidelines Section 15126.4. Unless otherwise noted, the mitigation measures presented are recommended in the EIR for consideration by the state to adopt as part of the Mitigation Monitoring and Reporting Program.

Issues evaluated in these sections consist of the environmental topics identified for review in the Notice of Preparation (see Appendix A of this Draft EIR). In each subsection of Chapter 3 of this Draft EIR, a Cumulative Impacts subsection presents an analysis of the project's impacts considered together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the CEQA Guidelines. Chapter 4 includes an analysis of the project's growth inducing impacts, expansion of utilities, economic stimulus, revisions to land use policies, and the removal of an obstacle to growth and development as required by Section 21100(b)(5) of CEQA. Chapter 5, Alternatives, presents a reasonable range of alternatives and evaluates the environmental effects of those alternatives relative to the proposed project, as required by Section 15126.6 of the CEQA Guidelines. The full references associated with the parenthetical references found throughout this EIR can be found in Chapter 7, References, organized by section number.

California State University Autonomy

San Diego State University is an entity of the CSU system, which is a statutorily and legislatively created, constitutionally authorized entity of the State of California and is therefore not subject to local government planning and land use plans, policies, or regulations. Aside from the MOU between the City and CSU, there is no formal mechanism for joint planning or the exchange of ideas. Nevertheless and in accordance with the MOU, San Diego State University may consider, for coordination purposes, aspects of local plans and policies of the communities surrounding the proposed project when it is appropriate. The proposed project would be subject to state and federal agency planning documents described herein but would not be bound by local or regional planning regulations or documents such as the City's or County's General Plan or municipal code, except with respect to mitigation of certain impacts to wetlands. The City of San Diego Development Services Department developed the Biology Guidelines (SDBG) presented in the Land Development Manual "to aid in the implementation and interpretation of the Environmentally Sensitive Lands Regulations, San Diego Land Development Code, Chapter 14, Division 1, Section 143.0101 et seq., and the Open Space Residential (OR-1-2) Zone, Chapter 13, Division 2, Section 131.0201 et seq." (City of San Diego 2018). The guidelines also provide standards for the determination of impact and mitigation under CEQA. SDSU, as the lead agency, is not generally subject to the City's guidelines; however, for the reasons outlined in the Memorandum of Understanding between SDSU and the City for planning and design of the bridge, the biological resources technical report includes the same level of detail, analysis, and mitigation that is required by the City for a report that is within the City's jurisdiction and is consistent with the SDBG.

San Diego State University seeks to maintain an ongoing exchange of ideas and information and to pursue mutually acceptable solutions for issues that confront the community affected by the proposed project. To foster this process, San Diego State University participates in, and communicates with, City, San Diego County, and community organizations; sponsors various meetings and briefings to keep local organizations, associations, and elected representatives apprised of ongoing planning efforts; and considers community input.

Cumulative Projects and Methods

This section is an introduction to the cumulative impacts analysis contained within each environmental impact category subsection of Chapter 3. This section explains the purpose of analyzing cumulative impacts, discusses the cumulative forecasting methodology, and presents a list of past, current, and probable future projects that were considered in assessing the proposed project's potential cumulative impacts.

Purpose

The CEQA Guidelines define "cumulative impacts" as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (14 CCR 15355).

Cumulative impacts generally may result from the combined effect of past, present, and future projects located in proximity to the proposed project under review. Therefore, a cumulative impacts analysis is to be viewed over time, with the impacts of the proposed project viewed in conjunction with other related past, present, and reasonably foreseeable future projects whose impacts might compound or interrelate with those of the proposed project under review.

Cumulative Forecasting Methodology

To analyze the cumulative impacts of the proposed project with other planned or foreseeable projects in the project's vicinity, it is necessary to determine the type and specifics of the other planned or foreseeable projects in the area. One method to accomplish this is to compile a "list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency" (14 CCR 15130[b]).

Thus, to analyze the potential cumulative impacts of the proposed project, a list of past, present, and probable projects in the area is provided in Table 3.0-1. The list was compiled based on personal communications with the applicable jurisdictional agencies and related database and internet research (City of San Diego 2023). The analysis of the proposed project's cumulative impacts is contained within the analysis of each separate environmental impact category presented in Sections 3.1 through 3.15.

List of Cumulative Projects

Table 3.0-1 provides a list of approved and proposed development projects in the vicinity of the proposed project. Future projects are determined based on the date of Notice of Preparation issuance (May 22, 2023) and are discussed to the extent that there is sufficient information available to determine the project's general scope and size. Every effort has been made to provide the most current and accurate information possible. The status of the projects included in the list may change over time as additional projects are proposed or as projects on the list are approved, withdrawn, and/or denied by the applicable jurisdiction.

Table 3.0-1 identifies the name, location, description, status, and projected buildout year (if available) of those cumulative projects within the vicinity of the proposed project. Figure 3.0-1, Cumulative Projects, depicts the location of each project listed in Table 3.0-1.

Table 3.0-1. Cumulative Projects

Map ID	Address	Project	Type	Status	Distance from Project
City of San Diego					
1	Mission Valley Community	Mission Valley Community Plan Update: Comprehensive Community Plan Update addressing land use, housing, urban design, parks and recreation and the mobility system within Mission Valley. Update would add approximately 28,000 dwelling units, 51,600 residents, 19,100 jobs, 55 acres of parks, and mobility and other infrastructure improvements.	MU	A	—
2	Northeast portion of the Mission Valley Community Area (south of Friars Road, west of Interstate [I] 15, north of I-8)	Mission Valley Campus Master Plan Project Proposal to acquire, construct, and operate an SDSU Mission Valley campus, stadium, parks, recreation, and innovation area to support SDSU's education, research, entrepreneurial, technology, and athletics programs.	MU	A, UC	On site

Table 3.0-1. Cumulative Projects

Map ID	Address	Project	Type	Status	Distance from Project
City of San Diego					
3	Mission Valley and Mission Bay area (Friars Road, Napa Street, Sea World Drive)	Alvarado 2nd Pipeline Extension Project: Proposal to construct approximately 10 miles of water mains in the Mission Valley and Mission Bay areas. New transmission mains would be installed along Friars Road and Napa Street. Distribution mains would be replaced along Sea World Drive and Friars Road.	PF	UC	Approx. 0.5 mile west
4	30th Street, San Diego, California 92108	30th Street Pipeline Replacement: Proposal to replace approximately 5.7 miles of water distribution mains within the North Park, Golden Hill, and Southeastern communities.	PF	UC	Approx. 1.8 miles south
5	University Avenue between Florida Street and Boundary Street/I-805, San Diego, California	University Avenue Mobility: Proposal to modify and improve the roadway segment of University Avenue between Florida Street and Boundary Street/I-805. The project includes roadway improvements related to traffic signals, raised medians, turn pockets, and re-striping. Transit and pedestrian improvements include transit-only lanes and enhanced pedestrian crossings and curb ramps.	PF	UC	Approx. 2.1 miles south
6	Convoy Street, San Diego, California 92108	AC Water & Sewer Group 1042 (SS) – Convoy Resurfacing: Proposal to overlay approximately 3.4 paving miles of existing roadway on Convoy Street, from State Route 52 to the intersection with Kearny Mesa Road and Ostrow Street. The project proposes to remove and replace damaged curbs, gutters, sidewalks, and restripe roads to provide for separated bike lanes.	PF	UC	Approx. 3 miles northwest
7	Park Boulevard, San Diego, California 92108	Balboa Park Pipeline Replacement, Phase II: Proposal to replace approximately 1.92 miles of existing water mains in Balboa Park and resurface and restripe to include transit improvements along Park Boulevard.	PF	UC	Approx. 2.8 miles southwest
8	6626 Kelley Street San Diego, California 92111	Kelly Street Park: Proposal to develop a General Development Plan amendment to redesign and renovate the Kelley Street Neighborhood Park.	PF	UD	Approx. 3 miles west

Table 3.0-1. Cumulative Projects

Map ID	Address	Project	Type	Status	Distance from Project
City of San Diego					
9	3750 John J Montgomery Drive, San Diego, California 92123	**Fire-Rescue Air Operations Facility, Phase II (Hangars & Apron):** Proposal to construct prefabricated metal hangar buildings and concrete apron to accommodate five rescue helicopters, parking and shelter for a single Heli-tender and two fueling tender vehicles, and a hangar support area.	O	UR	Approx. 3 miles south
10	1550 El Prado, San Diego, California 92101	**Balboa Park Botanical Building Improvements:** Proposal to undergo a complete building restoration on the Balboa Park Botanical Building, including structural improvements, replacement of redwood lath, reconstruction of historic window arcades, planter upgrades, accessibility improvements, expansion and remodeling of the maintenance area, and the addition of an entrance and additional staff room.	PF	UC	Approx 3.4 mile southwest
11	Chollas Parkway, San Diego, California 92105	**Chollas Triangle Park:** Proposal to prepare a General Development Plan for a new Chollas Triangle Park with children's play areas, walking paths, flexible turf areas, a community event space, and picnic areas.	PF	UD	Approx. 3.6 miles southeast
12	Corner of 47th Street and Fairmount Avenue, east of Interstate 805	**Fairmount Avenue Fire Station:** Proposal to design and construct a new permanent fire station of approximately 14,273 square feet to accommodate a crew of 10 fire personnel.	PF	UD	Approx. 4 miles south
13	West of Chollas RC Park on College Grove Drive, San Diego, California 92115	**New Oak Park Library:** Proposal to construct a new 20,000-square-foot library to offer the Oak Park residents and surrounding communities with a new library to expand programs and services, increase book capacity, and create a safer and modern facility that would be more functional for staff and patrons of the existing Oak Park Library.	PF	UD	Approx. 4 miles southeast
14	Citywide	**Traffic Signal Communications Master Plan:** Proposal to upgrade and expand the City's traffic signal communications network and the development of an Intelligent Transportation Systems program.	PF	A, UC	—

Table 3.0-1. Cumulative Projects

Map ID	Address	Project	Type	Status	Distance from Project
City of San Diego					
15	10222 and 10306 San Diego Mission Road, San Diego, California 92108	**Mission Town Homes:** Proposal to demo 2 commercial buildings and construct 58 residential townhomes on a 2.6-acre site.	R	C	Approx. 1 mile east
16	2450 Camino Del Rio North, San Diego, California 92108	**Discovery Center:** Proposal to construct a 9,950-square-foot interpretive building center with educational, meeting, and community uses; outdoor classroom space; concession with restrooms; extension of the San Diego River Trail; and an observation pier at two vacant parcels on a 17-acre site.	O	UC	Approx. 1 mile northeast
17	7960 Civita Boulevard, San Diego, California 92108	**Civita (Quarry Falls):** Proposal is for 4,780 residential units, 603,000 square feet of retail/commercial, and 620,000 square feet of office. Civita is in the Quarry Falls Specific Plan.	MU	UC	Approx. 1 mile northwest
18	588 Camino Del Rio North, San Diego, California 92108	**Witt Mission Valley**: Proposal to demolish existing automotive dealership for the development of a 348,500-square-foot, five-story mixed-use building over a 175,000-square-foot parking garage with 267 residential units, 10 shopkeeper units, and 9,600 square feet of commercial and retail space on a 5.128-acre site.	MU	UC	Approx. 2.1 miles west
19	State Route 163/Friars Road	**State Route 163/Friars Road Interchange:** Proposal to widen the Friars Road bridge and improvements to the State Route 163/Friars Road interchange.	PF	UC	Approx. 1.6 miles west
20	1150 Fashion Valley Road, San Diego, California 92108	**Riverwalk Commercial Center:** Proposal is to amend the Levi-Cushman Specific Plan, create a new specific plan, and apply for discretionary permits. The development is envisioned as a mixed-used, transit-oriented development, consisting of up to 4,000 new multifamily housing units, 200 acres of commercial office and hotel development, park facilities, and a new trolley stop.	MU	UC	Approx. 3 miles west
21	Citywide	**North City Pure Water Phase 2:** Phase 2 of the North City Pure Water Project would include development of a City of San Diego Public Utilities Department Groundwater Facility.	PF	A, UR	—

Table 3.0-1. Cumulative Projects

Map ID	Address	Project	Type	Status	Distance from Project
City of San Diego					
22	5998 Alcala Park, San Diego, California 92110	**University of San Diego Master Plan:** Proposal for Conditional Use Permit (CUP), amending CUP no. 92-0568 and 1996 Master Plan/Design Guidelines, would increase student enrollment to a maximum of 10,000 full time equivalent students with proposed development over a 20-year period. The approximately 180-acre site is located within the RS-1-7, RM-3-7, OR-1-1, and OP-2-1 zones within the Linda Vista Community Plan area.	I	A	Approx. 4 miles west
23	7610 Hazard Center Drive, San Diego, California 92108	**Hazard Center Redevelopment:** Proposal to demolish existing commercial to construct new residential uses and parking on site. Five-story row homes (73 residential units) and 22-story tower (198 residential units), with additional commercial along Hazard Center Drive. Also 21-story tower (202 residential units) and commercial on northeast corner of Friars Road and Frazee Road. A 0.63-acre public park is proposed in southwest corner of project site.	R	A	Approx. 1.9 miles west
24	6910 Mission Gorge Road, San Diego, California 92120	**Shawnee LLC/CG 7600 Master Plan:** Proposal is for a Master Plan that requires a Community Plan Amendment to alter the plan's Industrial uses to include a total of 1,023 multifamily residential units along with approximately 37,500 square feet of specialty retail, which would generate 7,692 average daily trips. Proposal is at Mission Gorge Road at the intersection of Old Cliffs Road in the Navajo Community.	MU	A, UC	Approx. 2.48 miles northeast
25	7020 Friars Road, San Diego, California 92108	**Friars Rd Residential Mixed Use:** Demolition of three commercial structures and construction of 410,000-square-foot, 70 market-rate residential condominiums and 249 residential apartment units (6 of which are shopkeeper units) for total of 319 units.	MU	UC	Approx. 2.6 miles west
26	Murphy Canyon Creek, between San Diego Mission Road and the San Diego River	**Murphy Canyon Channel Master Storm Water System Maintenance Plan (MSWSMP):** Proposal for channel maintenance under the MSWSMP to provide flood control. The project includes work within Murphy Canyon Creek channels adjacent to Qualcomm Stadium and I-15.	PF	C	.7 mile east

Table 3.0-1. Cumulative Projects

Map ID	Address	Project	Type	Status	Distance from Project
City of San Diego					
27	9060 Friars Road, San Diego, California 92108	**CALPEAK Power-Mission:** Proposal to build an addition to an existing electrical substation (CUP 87-0490) and operate a 49.5-megawatt natural gas powered electrical generating facility on a 1.97-acre property.	PF	—	—
28	Citywide	**Groundwater Extraction:** The Public Utilities Department is planning or developing several groundwater basins for municipal water supply and other beneficial use. Currently, the groundwater available for beneficial use is 500 acre-feet per year from the existing production wells in the San Diego River Valley Groundwater Basin.	PF	UR	—
29	Citywide	**Pure Water:** Citywide phased, multi-year program to provide one-third of San Diego's water supply locally by 2035 using water purification technology to clean recycled water to produce potable drinking water.	PF	UR, A, UC	N/A
30	San Diego River Valley, between I-805 and I-15	**Stadium Wetlands Mitigation Project:** Enhancement and restoration of approximately 57.0 acres of riparian habitat in the San Diego River, removal of invasive species, and establishment of native plant communities for mitigation for wetlands impacts.	PF	C	On-site
31	Citywide	**Municipal Waterways Maintenance Plan** A new Municipal Waterways Maintenance Plan to guide maintenance of the storm drain system following the expiration of the current MSWSMP.	PF	A, UC	N/A
32	Citywide	**Alternative Compliance Program** Citywide program to provide for off-site stormwater treatment facilities to supplement or offset on-site structural best management practices requirements.	PF	A	N/A
33	Citywide	**Utilities Undergrounding Program Master Plan:** Proposal to underground power distribution lines, telephone lines, cable lines, and other communication lines throughout the City.	PF	A, UC	—

Notes:
Type: R – Residential; MU – Mixed Use; PF – Public Facility; I – Institutional; O – Other.
Status: UR – Under Review; UD – Under Design; A – Approved; UC – Under Construction; C – Completed; N/A – not applicable

The MTS Trolley Purple Line proposal also warrants discussion, although the alignment has not yet been determined. This proposal is not considered a cumulative project because the proposal is not at the stage where a project application has been filed, or where environmental review has been commenced to implement the proposal as a "project." In addition, the proposal is not under environmental review for development, approved for construction, under construction, or completed. Furthermore, the proposal is not funded such that it is ready to be submitted as a project application; therefore, the proposal is not ready to be the subject of environmental review at this time. The proposal also does not have any set design or construction plans in place for study purposes; as a result, there is uncertainty as to design, location, configuration, timing, and other factors.

There is no known funding to implement the MTS Trolley Purple Line at this time or in the future. For all of the above reasons, the proposal is not considered a cumulative project for CEQA purposes.

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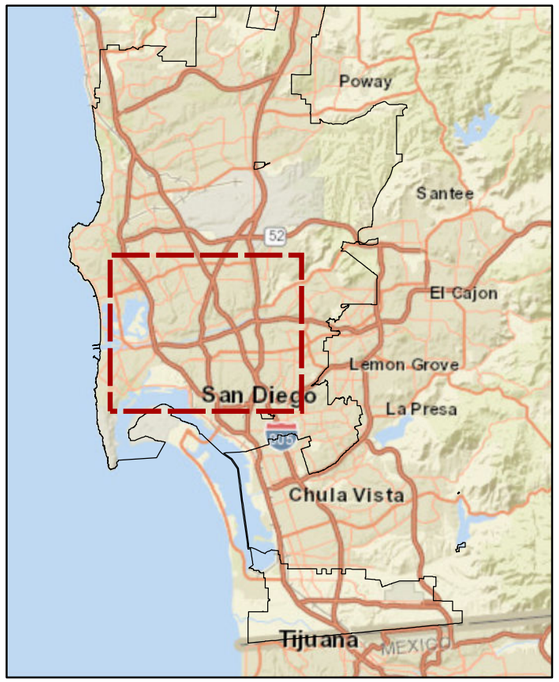

ID	Cumulative Project
1	Mission Valley Community Plan Update
2	Mission Valley Campus Master Plan
3	Alvarado 2nd Pipeline Extension Project (S12013)
4	30th Street Pipeline Replacement (B21018)
5	University Avenue Mobility (S00915)
6	AC Water & Sewer Group 1042 (SS) (B22128)
7	Balboa Park Pipeline Replacement Ph. II (S) (B17133, 134, 140)
8	Kelly Street Park GDP (P22004)
9	Fire-Rescue Air Operations Facility-Ph II (Hangers-Apron)
10	Balboa Park Botanical Building Improvements (S20005)
11	Chollas Triangle Park (P20005)
12	Fairmount Avenue Fire Station (S14018)
13	New Oak Park Library (S22011)
14	Traffic Signal Communications Master Plan (Citywide)
15	Mission Town Homes
16	Discovery Center
17	Civita (Quarry Falls)
18	Witt Mission Valley
19	State Route 163/Friars Road Interchange
20	Riverwalk Commercial Center
21	North City Pure Water Phase 2 (Citywide)
22	University of San Diego Master Plan
23	Hazard Center Redevelopment
24	Shawnee LLC/CG 7600 Master Plan
25	Friars Road Residential Mixed Use
26	Murphy Canyon Channel Master Storm Water System Maintenance Plan
27	CALPEAK Power-Mission
28	Groundwater Extraction (Citywide)
29	Pure Water (Citywide)
30	Stadium Wetlands Mitigation Project
31	Municipal Waterways Maintenance Plan (Citywide)
32	Alternative Compliance Program (Citywide)
33	Utilities Undergrounding Program Master Plan (Citywide)

SOURCE: ESRI IMAGERY 2022; CITY OF SAN DIEGO 2023

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FIGURE 3.0-1
Cumulative Projects
Fenton Parkway Bridge Project EIR

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3.1 Aesthetics

This section describes the existing visual conditions of the project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Fenton Parkway Bridge Project (project).

A notice of preparation (NOP) was circulated from May 22, 2023, to June 20, 2023. A total of 16 letters were received during this comment period. Comments on the NOP related to aesthetics and/or visual quality focused on lighting effects on the City of San Diego (City) Multi-Habitat Planning Area and avian species/biological resources, project design, and requests for public artwork to be incorporated into project design. Please see Appendix A, NOP and Scoping Comments, for a complete compilation of comments received on the NOP.

3.1.1 Existing Conditions

This section describes the existing conditions in the project area and identifies the visual resources that could be affected by the proposed project. The environmental setting is organized according to visual/aesthetic resources identified in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (i.e., scenic vistas, scenic highways, visual character and quality, light and glare).

Scenic Vistas

While there are no designated scenic vistas identified in the current Mission Valley Community Plan (City of San Diego 2019a), the City's Draft General Plan Final Program Environmental Impact Report (PEIR) (City of San Diego 2008a) identifies non-specific "communitywide" public views for Mission Valley. Specifically, the General Plan Final PEIR identifies public views to the San Diego River corridor from hillside streets and parks in the surrounding communities as public vantage points and further implies that these views are de facto scenic vistas. Similarly, the Final PEIR for the Mission Valley Community Plan Update notes that while the community plan does not identify official view corridors or viewsheds, numerous scenic vistas and views (including views of the San Diego River, hillsides and ridgelines, and valley landscape) are available in the community plan area (City of San Diego 2019b). Further, the Final PEIR for the Mission Valley Community Plan Update notes that due to the presence of dense vegetation along both sides of the river, views to the river "are limited to pedestrian- and bicycle-only areas alongside the river and the segments of roadways and the trolley line that cross over it" (City of San Diego 2019b).

The San Diego River corridor is situated in a valley bordered by higher elevation mesas to the north and south. In the immediate project area, the mesas are developed with single-family and multifamily residential developments. Local mesas provide elevated vantage points from which the San Diego River corridor (including the project site), Mission Valley, and distant hills and mountains are visible. However, most of these views are offered from private residential properties and private views are not generally considered sensitive under CEQA. Views to the project site from public roads atop the developed mesas in the area are generally not available due to the presence of intervening residential development that routinely abuts roads and lines the mesa rims. In addition to Mission Valley, surrounding communities (e.g., Serra Mesa, North Park, and Normal Heights) do not feature hillside or mesa edge public parks that provide views that include the San Diego River and the specific segment of the river where the project site is located.

The project site has limited visibility from Interstate (I) 8 and the specific project alignment area is not readily distinguishable from adjacent stretches of the river corridor. No views to the project site are available from I-15. While not identified as scenic vistas in local planning documents, views to vegetation in the San Diego River corridor are available to passing I-8 motorists and their passengers as they travel through Mission Valley (views are, however, frequently blocked by commercial and office development situated between the interstate and the river).

The Mission Valley area and San Diego River corridor are visible from Cowles Mountain (1,594 feet above mean sea level) and Pyles Peak (1,379 feet above mean sea level). Located over 6 miles east of the project site in Mission Trails Regional Park, west-oriented views from the slopes and summits of these locations are long and broad and stretch to the Pacific Ocean. While the project site might be visible from elevated vantage points in Mission Trails Regional Park, existing roads and bridges spanning the river are experienced within the broader context of the City of San Diego and development along I-8 corridor. Further, due to the broad westward view offered from prominent terrain in Mission Trails Regional Park, the project site is not particularly dominant as viewed from these elevated yet distant locations.

Scenic Highways

The nearest state scenic highways to the project site are I-8, State Route (SR) 163, and I-5 (Caltrans 2023).

I-8 is an eligible state scenic highway from the coast (Sunset Cliffs Boulevard) to SR-98 near Coyote Wells (Caltrans 2023). Through Mission Valley and near the project site, I-8 is located approximately 700 feet from the San Diego River corridor. Between I-15 and Mission Valley Parkway (a distance of approximately 0.75 miles), the project site is within the viewshed of westbound I-8 motorists over an approximately 0.25-mile segment (at 60 miles per hour, the 0.25-mile segment would be travelled in approximately 16 seconds). Shrubs and trees, sloped terrain, and tall office buildings to the east and south of I-8 completely block the project site from view of eastbound motorists between I-805 and Mission City Parkway.

From approximately Ash Street in downtown San Diego to I-8, SR-163 is an eligible state scenic highway. Due to intervening canyon slopes, vegetation, and development, the project site is not visible from the designated scenic segment of SR-163. The segment of SR-163 that spans the San Diego River and extends north through Mission Valley is located over 2.2 miles from the project site and is not designated scenic. North of I-8, the project alignment is blocked from view of SR-163 motorists by elevated off-ramps, interstate landscaping, mature trees within the San Diego River corridor, and a collection of tall office and hotel buildings and associated landscaping. The project alignment is not visible from SR-163, the staging area in the peripheral view of passing motorists and their passengers, and vegetation within the boundary of the project site is indiscernible from other nearby mature trees in the San Diego River corridor.

I-5 through San Diego County is also an eligible state scenic highway. At the San Diego River crossing near Old Town, the project site is located over 4 miles from I-5. As viewed from I-5 at the river crossing, the project site is blocked from view by intervening terrain, vegetation, and assorted development along the I-8 corridor. Thus, no views to the project site are available from I-5.

Visual Character and Quality

Project Site

The project site is in the eastern portion of the Mission Valley area and is composed of an approximately 790-foot-long area between the southern terminus of Fenton Parkway and the intersection of Mission City Parkway and Camino Del Rio North. The project site includes a riparian area that generally slopes downward from the northern and southern extents into the San Diego River and features elevations ranging from 52 feet above mean sea level to 64 feet above mean sea level. In addition to the westerly extent of the San Diego State University (SDSU) Mission Valley River Park, the project site supports a dense assortment of mature trees and lower shrubs lining the north and south banks of the river.

Surrounding Area

In the northern portion of the project site, the project alignment runs through the Fenton Parkway Trolley Station, traversing the trolley track and existing low post-and-rail fencing and curb located at the southern extent of Fenton Parkway. The trolley station supports separate eastbound and westbound tracks and associated platforms, several poles supporting night lighting, shaded benches, and a metal fence separating the station from adjacent areas to the north and south. On the northern project boundary, Fenton Parkway is a wide (approximately 50 feet wide curb to curb), two lane, divided street with a landscaped median. Fenton Parkway is a local road that extends north and south of Friars Road and provides access to residences and commercial businesses in the Fenton Marketplace retail center.

The T intersection of Camino Del Rio North and Mission City Parkway is located on the southern boundary of the project site. Mission City Parkway is short, north–south street extending north from Camino Del Rio South to Camino Del Rio North that spans I-8. North of the interstate, an area of dense native shrubs is located to the east of Mission City Parkway and is bound on the east by Camino Del Rio North. Mature landscaping, a three-level parking garage, a surface parking lot, and two glass-curtain-wall exterior office towers (13 and 16 stories) are located to the west of Mission City Parkway.

Viewpoints

Six locations were selected as representative public vantage points from which views of the project site are available to viewer groups in the surrounding area. These locations (i.e., viewpoints) form the basis of the description of existing visual character and quality and the impact analysis as it relates to changes to existing visual character and quality. The views at identified viewpoints capture a range of viewing angles, distances, and general visibility to the project site from locations in the surrounding area. The quality of the existing views and character of the landscape at the viewpoints was captured in photographs taken during photographic field inventories conducted in July and August 2023. The location of the viewpoints and their relationship to the project site is depicted on Figure 3.1-1, Viewpoints.

Table 3.1-1. Viewpoints and General Visibility

Viewpoints	Location	Approximate Distance to Project Site/Boundary	General Visibility Conditions to Project Site (current conditions)
1	Southbound Fenton Parkway	50 feet	Currently obstructed (minimally) by low post-and-rail fencing and a tall MTS Fenton Parkway Trolley Station sign
2	MTS Trolley Stadium Station	0.40 miles	Visible (northern segment) but slightly obscured by distance. Southern segment partially obstructed by dense riparian vegetation.
3	Eastbound Camino Del Rio North	120 feet	Southernmost segment of project site (i.e., where project site extends to Camino Del Rio North/Mission City Parkway) visible but remainder of project site blocked from view by dense riparian vegetation.
4	Northbound Mission City Parkway	350 feet	Mostly unobscured. Views to southernmost segment of project site available but views to northernmost segment near MTS trolley station blocked by mature trees in the riparian corridor of San Diego River.
5	Westbound Camino Del Rio South	0.25 miles	Partially obstructed. The southernmost segment of the project site at the Camino Del Rio North and Mission City Parkway intersection is visible but obscured by distance. Remainder of project site indistinct in existing view.
6	River Park	280 feet	Clear. The north segment of the project site would be unobscured but southern segment would be outside of the view angle captured at this location.

Note: MTS = Metropolitan Transit System.

Viewpoint 1: Southbound Fenton Parkway

Viewpoint 1 is located at the existing southernmost terminus of Fenton Parkway near the Metropolitan Transit System (MTS) Fenton Parkway Trolley Station. The immediate foreground consists of the paved extent of Fenton Parkway, the raised impermeable parkway median, sidewalk, and adjacent shrubs. Low, white post-and-rail fencing with reflective decals is installed perpendicular to the road and fronts a narrow strip of weedy vegetation and a tall, MTS Fenton Parkway Trolley Station sign. Light poles and poles supporting power lines and overhead trolley cable are present in the foreground. Lines and cable run parallel to the east–west MTS Trolley Green Line. A small, paved road is located beyond the trolley station and the landscape to the south consists of newly planted landscape trees in the River Park and a near wall of dense and mature trees. The upper floors of several office buildings are visible above the river corridor tree line and the rising, mounded ridgeline of canyon terrain forms an elevated horizon line.

Viewpoint 1 is representative of project site views experienced by Fenton Parkway motorists and users (pedestrians and cyclists) of the Fenton Parkway Trolley Station.

Viewpoint 2: MTS Stadium Trolley Station

Viewpoint 2 is located on elevated ramps providing access to the eastbound platform at the MTS Stadium Station. The viewpoint is against the railing of the elevated ramp and offers a superior angle view (i.e., elevated in relation to the target object in the view) of the River Park (baseline photo reflects construction progress as of August 2023), adjacent (and dense) riparian corridor of the San Diego River, and the descending concrete deck supporting the MTS Trolley Green Line. Commercial development in the Fenton Market is visible to the north of the trolley line (the blue palette and yellow IKEA lettering is visually distinct in the view) and the dark, rectangular, glass-curtain-wall exterior office buildings (Centerside office development) are visible to the south of the San Diego River corridor. Elevated ridgelines to the north and south of Mission Valley are evident in the view and the elevated span of I-805 is detectable to the west.

Viewpoint 2 is representative of project site views experienced by MTS trolley users including those waiting on the eastbound Green Line platform.

Viewpoint 3: Eastbound Camino Del Rio North

Viewpoint 3 is located on eastbound Camino Del Rio North, approximately 60 feet west of the Camino Del Rio North/Mission City Parkway intersection, and offers a southernmost segment of the project site where the proposed bridge would tie in to the intersection. From Viewpoint 3, the striped, paved surface of intersecting roads is visible, as is the low curb and metallic guardrail that parallel the westbound travel lane of Camino Del Rio North. Three tall, tubular steel poles with arching “arms” supporting streetlights, traffic signals, and street signs are installed at the intersection. Low, spreading shrubs generally occupy the area north of the guardrail and south of the mostly transparent chain-link fence; a dense line of light to dark green foliage trees add verticality to the landscape and denote the location of the San Diego River corridor. Lastly, occasional gaps between the otherwise dense line of mature trees provide narrow viewing windows to previously disturbed hillsides and ridgelines that rise above the Mission Valley landscape to the north.

Viewpoint 3 is representative of views to the southern portion of the project site experienced by motorists, pedestrians, and cyclists traveling on Camino Del Rio North.

Viewpoint 4: Northbound Mission City Parkway

Viewpoint 4 is located on northbound Mission City Parkway on the approach towards the Mission City Parkway/Camino Del Rio North intersection (the viewpoint is situated approximately 300 feet south of the intersection) and offers a north oriented view to the project site. The foreground of the viewpoint consists of northbound and southbound travel lanes, a makeshift bladed path and low to moderate native shrubs to the east of the parkway, and sidewalk and landscape shrubs to the west of the parkway. Several pine trees and the rectangular concrete exterior of a parking structure are visible to the northwest but the view is focused on the nearby intersection and dense cluster of mature trees located to the north. Residential and commercial development is visible through gaps in the vegetated corridor to the north and disturbed, partially developed hillsides and ridgelines are located further south. From this vantage point, the southern extent of the project site (i.e., where the proposed bridge would tie in to the existing intersection) is located approximately 350 feet away.

Viewpoint 2 is representative of project site views experienced by motorists, pedestrians, and cyclists traveling north on Mission City Parkway on its approach towards Camino Del Rio North.

Viewpoint 5: Westbound Camino Del Rio South

Viewpoint 5 is representative of views from westbound Camino Del Rio South, approximately 0.25 miles southeast of the project site. The viewpoint provides an elevated, northwest-oriented view that extends beyond the paved travel lanes of Camino Del Rio South, spans I-8 (the interstate is not visible from this vantage point), and includes the San Diego River corridor; commercial, residential, and office development located north of the river; the elevated deck of I-805; and partially developed hillsides and ridgelines to the north of the Mission Valley landscape. From this location, the available view is broad and offers multiple elements of interest for viewer groups to focus on. As a result and because most of the intersection road surfaces are obstructed by vegetated terrain and thin light poles at the intersection are obscured by distance, the Mission City Parkway/Camino Del Rio South intersection (i.e., the southern section of the project site) can be looked over from Viewpoint 5.

Viewpoint 5 is representative of project site views experienced by motorists, pedestrians, and cyclists traveling on Camino Del Rio South and more broadly, viewing groups associated with the commercial development constructed to the south of the Camino Del Rio South.

Viewpoint 6: River Park

Viewpoint 6 is in the westerly extent of River Park that, as of August 2023 (i.e., the timing of the photographic field inventory completed for the project), was under construction and not yet open to the public. The westerly view from a paved park walkway includes multiple planting areas bordered by cement and tan decomposed granite, a semi-circular ring of boulders, and newly planted trees near the park's outdoor learning space. Other visible park elements include thin poles supporting small overhead light fixtures and a blue emergency duress phone. Tall, mature trees dotting the San Diego River are evident in the view, as is the rectangular and hard edge exterior of office development located south of the river. Limited views to the ridgeline overlooking Mission Valley are available through gaps in trees. The three-story residential development to the north of the MTS Fenton Parkway Trolley Station (fencing and a covered bench area are visible but not prominent in the view) is partially visible from Viewpoint 6.

Viewpoint 6 is representative of project site views experienced by park users in the western extent area of the nearby River Park.

Light and Glare

Except for the northernmost and southmost areas of the project site that would tie in to existing roads (i.e., Fenton Parkway on the north and the Mission City Parkway/Camino Del Rio North intersection) featuring existing sources of lighting including streetlights, traffic signals, rail crossing arms, and trolley station lighting, the project site encompasses an undeveloped stretch of the San Diego River corridor. As such, the majority of the project site does not contain existing sources of lighting; however, because the project is within an urban environment, the area encompassing the project site is generally exposed to existing lighting sources typical of an urban environment. For example, north of the project site, businesses and parking lots at the nearby Fenton Marketplace feature exterior lighting and security lighting that contribute to the nighttime lighting environment. In addition, the apartment homes to the north of the MTS Fenton Parkway Trolley Station also feature exterior lighting elements including walkway lighting and common area lighting. To the south of the project site, there is a large office building development and associated surface parking lot and parking structure that feature exterior lighting sources. Streetlights are also installed along Camino Del Rio North and Mission City Parkway. East of the project site, Snapdragon Stadium features a collection of large field/stadium lights that

operate frequently and noticeably contribute to existing ambient lighting levels in the local areas. Lastly, local retail developments (e.g., Fashion Valley and Mission Valley Malls) and mid-rise commercial, office, and residential developments feature internal and external lighting fixtures and parking lot lighting.

3.1.2 Relevant Plans, Policies, and Ordinances

Federal

There are no federal aesthetics or visual resource policies that would be applicable to the proposed project.

State

State Scenic Highway Program

The nearest state scenic highways to the project site are I-8 and SR-163 (Caltrans 2023). I-8, an eligible state scenic highway running eastward from the coast, is located as close as approximately 700 feet to the project site as measured from the Mission City Parkway Bridge. From approximately Ash Street in downtown San Diego to I-8, SR-163 is an eligible state scenic highway. The segment of SR-163 that spans the San Diego River and extends north through Mission Valley is not designated scenic and, due to a consistently dense line of vegetation in the San Diego River as experienced from SR-163, the project site is not distinct in available easterly views from the state route. I-5 through San Diego County is also an eligible state scenic highway; however, the project site is located nearly 4 miles away from the interstate and is not visible. The availability of views to the project site from I-8 and SR-163 is discussed in Section 3.1.1, Existing Conditions.

Local

Because SDSU is an entity of the California State University, which is a state agency, the proposed project is not subject to local government planning and land use plans, policies, or regulations. However, for informational purposes, SDSU has considered these planning documents and the project's site location within, and relationship to, each. The proposed project would be subject to state agency planning documents described above, but would not be subject to regional or local planning documents such as the City of San Diego General Plan (General Plan), Mission Valley Community Plan, or City municipal zoning code.

City of San Diego General Plan – City of Villages

The Conservation Element of the City's General Plan (City of San Diego 2008b) contains policies that pertain to the natural landforms, including canyon lands that help make San Diego unique, including the following:

> Policy CE-B.1. Protect and conserve the landforms, canyon lands, and open spaces that: define the City's urban form; provide public views/vistas; serve as core biological areas and wildlife linkages; are wetlands habitats; provide buffers within and between communities; or provide outdoor recreational opportunities.
>
> c. Protect urban canyons and other important community open spaces including those that have been designated in community plans for the many benefits they offer locally, and regionally as part of a collective citywide open space system

The goal of the General Plan Urban Design Element is to "guide development toward a desired scale and character that is consistent with the social, economic and aesthetic values of the City of San Diego" (City of San Diego 2008c). The term "urban design" encompasses the physical features present in the landscape that help characterize the image of a street, neighborhood, or community and consists of both natural and human-made features. Canyons and mesas are identified in the Urban Design Element as natural features that contribute to San Diego's distinctive character. Relevant policies of the Urban Design Element include the following:

Policy UD-A.1. Preserve and protect natural landforms and features.

a. Protect the integrity of community plan designated open spaces.

Policy UD-A.2. Use open space and landscape to define and link communities.

a. Link villages, public attractions, canyons, open space and other destinations together by connecting them with trail systems, bikeways, landscaped boulevards, formalized parks, and/or natural open space, as appropriate.
b. Preserve and encourage preservation of physical connectivity and access to open space.

Policy UD-A.3. Design development adjacent to natural features in a sensitive manner to highlight and complement the natural environment in areas designated for development.

…

b. Minimize grading to maintain the natural topography, while contouring any landform alterations to blend into the natural terrain.

…

f. Provide increased setbacks from canyon rims or open space areas to ensure that the visibility of new development is minimized.

g. Screen development adjacent to natural features as appropriate so that development does not appear visually intrusive, or interfere with the experience within the open space system. The provision of enhanced landscaping adjacent to natural features could be used to soften the appearance of or buffer development from the natural features.

h. Use building and landscape materials that blend with and do not create visual or other conflicts with the natural environment in instances where new buildings abut natural areas. This guideline must be balanced with a need to clear natural vegetation for fire protection to ensure public safety in some areas.

i. Ensure that the visibility of new development from natural features and open space areas is minimized to preserve the landforms and ridgelines that provide a natural backdrop to the open space systems. For example, development should not be visible from canyon trails at the point the trail is located nearest to proposed development. Lines-of-sight from trails or the open space system could be used to determine compliance with this policy.

…

l. Protect views from public roadways and parklands to natural canyons, resource areas, and scenic vistas.

...

n. Provide public pedestrian, bicycle, and equestrian access paths to scenic viewpoints, parklands, and where consistent with resource protection, in natural resource open space areas.

Policy UD-A.9. Incorporate existing and proposed transit stops or stations into project design.

Policy UD-A.10. Design or retrofit streets to improve walkability, bicycling, and transit integration; to strengthen connectivity; and to enhance community identity. Streets are an important aspect of Urban Design as referenced in the Mobility Element.

Policy UD-A.13. Provide lighting from a variety of sources at appropriate intensities and qualities for safety.

a. Provide pedestrian-scaled lighting for pedestrian circulation and visibility.
b. Use effective lighting for vehicular traffic while not overwhelming the quality of pedestrian lighting.
c. Use lighting to convey a sense of safety while minimizing glare and contrast.
d. Use vandal-resistant light fixtures that complement the neighborhood and character.
e. Focus lighting to eliminate spill-over so that lighting is directed, and only the intended use is illuminated.

Policy UD-A.14. Design project signage to effectively utilize sign area and complement the character of the structure and setting.

a. Architecturally integrate signage into project design.
b. Design signs to minimize negative visual impacts.

Policy UD-A.16. Minimize the visual and functional impact of utility systems and equipment on streets, sidewalks, and the public realm.

...

c. Traffic operational features such as streetlights, traffic signals, control boxes, street signs and similar facilities should be located and consolidated on poles, to minimize clutter, improve safety, and maximize public pedestrian access, especially at intersections and sidewalk ramps. Other street utilities such as storm drains and vaults should be carefully located to afford proper placement of the vertical elements.

Policy UD-C.7. Enhance the public streetscape for greater walkability and neighborhood aesthetics.

Policy UD-D.2. Assure high quality design of buildings and structures. The design and orientation of buildings within projects affect the pedestrian- and transit-orientation.

Policy UD-F.1. …

b. Use public art and cultural amenities to improve the design and public infrastructure projects.

Mission Valley Community Plan Update

The Final Mission Valley Community Plan Update was released on May 31, 2019 (City of San Diego 2019a) and the City Council approved it on September 10, 2019. The Final Mission Valley Community Plan Update includes the following policies for mobility. Proposed bridges intended to improve pedestrian mobility and access are depicted on Community Plan Update Figure 5, Pedestrian Route Types (the proposed Fenton Parkway Bridge is identified as a Connector [low pedestrian level] Pedestrian Route Type). The proposed Fenton Parkway Bridge is also identified as a proposed Class II – Bike Lane on Community Plan Update Figure 9, Bicycle Network, and as a Four-Lane Collector with Two-Way Left Turn Lanes on Community Plan Update Figure 14, Roadway Network Classifications (and in Community Plan Update Table 3, Planned Roadway Classification Modifications) (City of San Diego 2019a).

Policy IA-1 Barrier Removal. Create a continuous network of sidewalks and street crossings by eliminating sidewalk gaps, installing curb ramps, and removing accessibility barriers at transit stations/stops accessed by Mobility Element roads.

Policy IA-2 Pedestrian Bridges. Coordinate with Caltrans, SANDAG, and property owners to improve pedestrian mobility and access by installing bridges proposed in Figure 5, including the Riverwalk Street "J" connection and Fenton Parkway roadway extension, and the pedestrian and bicycle bridges at the Hazard Center Trolley Station, the Friars Road/Frazee Road intersection, the Mission Valley Center Trolley Station, across Friars Road west of Qualcomm Way, along 1-15 to the Stadium Trolley Station, and from the YMCA to Sefton Field.

Policy IA-97 Smart Lighting. When lighting new and existing roadways, LED streetlights with adaptive controls for cost savings, energy efficiency, and to minimize light pollution should be installed. Further, smart sensors should be installed to gather real time data on parking and carbon emissions as well as how to improve intersections and emergency response.

Policy WLK-2 Include adequate lighting for pedestrian and cyclist safety and comfort on pedestrian and bicycle connections, particularly along freeway and bridge underpasses, and along the San Diego River Trail.

Lastly, for development with the San Diego River Subdistrict, all lighting within 100 feet of the River Corridor Area shall be shielded and directed away from the River Corridor Area (City of San Diego 2019a).

San Diego River Park Master Plan

The San Diego City Council adopted the San Diego River Park Master Plan on May 20, 2013. The plan's goal is to provide the vision and guidance to reverse the San Diego River's threatened condition and restore the symbiotic relationship between the river and surrounding communities. The San Diego River Park Master Plan's vision, principles, recommendations, and implementation strategy provide the City with a strong policy document for the future development along the river. Recommendations are divided into general recommendations for the entire river park area, extending from the City of Julian to the Pacific Ocean, and specific reach recommendations for the six distinct geographic areas of the river (City of San Diego 2013).

The project site is located within the Lower Valley Reach geographic area, for which the Master Plan includes the following recommendations (City of San Diego 2013):

H. Create the San Diego River Pathway connection from Fenton Parkway (on the south side of Mission Valley Library) to I-15 and pursue opportunities to provide a pedestrian/bicycle connection, over the river, from Qualcomm Way to Mission City Parkway.

I. Consider public recreation, the San Diego River Pathway and a naturalized open space along the river when planning any future use of the City's property at the Qualcomm Stadium site.

The Master Plan contains the following design guidelines concerning bridges and lighting (City of San Diego 2013):

- Section 4.3.2.7. Bridges. All new or redeveloped bridges should be specially designed to acknowledge and announce the crossing of the San Diego River. Signs should be included to highlight the pedestrian crossings, as well as the San Diego River Park.
  - C. Vehicular/pedestrian/bicyclist bridges should include a sidewalk for pedestrians and where possible a Class 1 bike route in each direction or, at a minimum, on one side of the bridge.
  - D. Bridges crossing the River Corridor Area should be designed, where possible, to accommodate the San Diego River Pathway passing beneath the bridge during typically low water conditions (minimum of 12 feet vertical clearance) with a ramping connection to at-grade crossings to accommodate high water conditions.
  - E. Bridge spans should provide adequate space for both the river and dry land area to accommodate wildlife movement, where possible.

- Section 4.3.3.3. Lighting of Structures. Design lights into the architecture of the structure and discourage use of decorative lights. A balance must be achieved between lighting to provide security and the absence of lighting necessary for a functional wildlife habitat. In general, structures should be evenly under-lit rather than over-lit.
  - A. Utilize shielded lights.
  - B. Solar powered lighting should be used as a sustainable alternative.
  - C. Lighting should be vandal-proof and easy to maintain.
  - D. Lights on structures that are located adjacent or in the MHPA to meet the requirements of the MSCP Land Use Adjacency Guidelines.
  - E. Lighting should provide true color rendering and be energy efficient.

City of San Diego Municipal Code and Land Development Code

The San Diego Municipal Code, Chapters 11 through 14, as well as a portion of Chapter 15, are referred to as the Land Development Code. These chapters contain the City's planning, zoning, subdivision, and building regulations. The Mission Valley Planned District Ordinance is included as Article 14 of Chapter 15 of the Land Development Code and includes special regulations that apply to all development proposals subject to review under this ordinance. One of the purposes of the Mission Valley Planned District Ordinance is to support implementation of the River Park Master Plan. Section 1514.0302 of the Land Development Code also sets forth regulations to ensure that development along the San Diego River implements the River Park Master Plan and the Mission Valley Community Plan. Additional purposes set forth in Section 1514.0302 are to preserve and enhance the character of the San Diego River valley, to provide for sensitive rehabilitation and redevelopment, and to create the River Pathway. Where there is a conflict between the

special regulations outlined in the Mission Valley Planned District Ordinance and those of Section 1514.0302 (San Diego River Park Subdistrict), the provisions of Section 1514.0302 shall apply.

3.1.3 Significance Criteria

The significance criteria used to evaluate the project impacts to aesthetics are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to aesthetics would occur if the project would:

1. Have a substantial adverse effect on a scenic vista.
2. Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
3. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.
4. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

3.1.4 Impacts Analysis

Would the project have a substantial adverse effect on a scenic vista?

Pre-Cast and Cast-in-Place Construction Methods

As detailed in Chapter 2, Project Description, development of the project (pre-cast or cast-in-place methodology) would occur in two phases, site preparation and project construction. Further, construction would occur over approximately 14 months. During this timeframe, views of the project site would be available from the adjacent residential apartments and Fenton Parkway on the north, the adjacent River Park to the east, and local roads and office development on the south. Construction activities would also be experienced by westbound motorists and their passengers over a short 0.25-mile long stretch of I-8 and from ridgelines residents atop terrain to the south of Mission Valley. The initial phase of construction (duration would be approximately 3 weeks) would entail the installation of fencing and clearing and grubbing of the construction disturbance area and would be facilitated by equipment including a bulldozer, scraper, grader, excavator, loader, water truck, rock trucks, and dump trucks. While the removal of vegetation and construction equipment would be visible from public vantage points in the surrounding area, construction activities and the presence of equipment would not result in the blockage of designated scenic vistas or public views from specific view corridors identified in the Mission Valley Community Plan. Similarly, construction of the bridge and related excavation and superstructure work would be visible from locations noted above but would not result in adverse effects to a designated scenic vista. While construction activities would be visible from designated open space areas, public roads, and the adjacent River Park, no elements of construction would result in permanent blockage of views or the substantial interruption of existing available views to local scenic resources including the San Diego River. Clear views to construction and construction effects would be available from Fenton Parkway, nearby residential and commercial land uses, the River Park, and local roads; however, as experienced from these general locations, the dense riparian corridor character of the river corridor would remain intact and would not be substantially altered by targeted activities in the construction disturbance area.

Once constructed, the elevated horizontal deck of the bridge and new elements including lighting posts, railing, and railroad crossing arms would not present substantial impediments to existing views and would not display significant vertical scale (or continuous scale) that could potentially result in the substantial blockage of existing views. As shown in the visual simulations prepared for the project, the Fenton Parkway Bridge would display a relatively horizontal form and profile that would be experienced low in views of the landscape. See Figures 3.1-2 through 3.1-7. As shown in the visual simulations, project elements would be noticeable in views from public vantage points in the surrounding area; however, no component of the project would result in noticeable view blockage or significant interruption of existing available views. Although removal of existing vegetation to accommodate the bridge would be detectable (specifically from close range views including Fenton Parkway, Camino Del Rio South, Mission City Parkway, and the River Park), minimal view interruption is anticipated and operation of the bridge would not substantially detract from views of the San Diego River. As such, pre-cast or cast-in-place construction methods and operation of the project would not have a substantial adverse effect on a scenic vista, and impacts would be **less than significant**.

Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Pre-Cast and Cast-in-Place Construction Methods

While the project would not be visible from an officially designated state scenic highway, the project site is within the viewshed of I-8 (an eligible state scenic highway). Project construction and the completed bridge structure would be within the viewshed of westbound I-8 over an approximately 0.25-mile-long segment. Over this available viewing window, the proposed bridge footprint would be as close as 700 feet away and potential staging areas would be within 50 feet of the interstate. Despite the proximity of potential staging areas and the bridge footprint, the available view from the interstate is fleeting (lasting for less than 20 seconds during free flowing traffic conditions) and bridge construction would be partially obscured by intervening terrain and vegetation including mature trees. Further, removal of vegetation from the river corridor to accommodate the project would not be overly distinct as viewed by passing interstate motorists and the overall character of the San Diego River corridor would remain intact. Therefore, due to the fleeting nature of views to construction activities and the anticipated limited effect on the scenic qualities of the river corridor as experienced from the interstate, construction of the project would not result in substantial damage to scenic resources within a state scenic highway. Impacts would be less than significant.

As described above, interstate views to the Fenton Parkway Bridge during operations would be experienced briefly and in the periphery of motorists and their passengers. While a visual simulation of the project as viewed from westbound I-8 was not prepared, the visual simulation from Camino Del Rio South is generally representative of available project views from the interstate. As shown in the visual simulation presented on Figure 3.1-6, a portion of the proposed bridge profile would be visible but the northerly segment of the project would be blocked from view by dense vegetation associated with the San Diego River. Also, as demonstrated in Figure 3.1-6, vegetation removal to accommodate the project would result in some visible loss of tree cover and density; however, the overall character of the river corridor would remain intact and would not be substantially altered by bridge construction and operations. Also, the project would be located within the urbanized setting of Mission Valley and, as presented on Figure 3.1-6, the proposed bridge would display a mostly horizontal form and line that would not be visually obtrusive in the landscape as experienced from I-8 (or Camino Del Rio South). Therefore, impacts to scenic resources, regardless of the construction method, within a state scenic highway would be **less than significant**.

In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Pre-Cast and Cast-in-Place Construction Methods

Mission Valley is largely a developed, urbanized community, and the project would provide a planned vehicular, pedestrian, and cycling connection between Mission City Parkway and Fenton Parkway over the San Diego River corridor. In addition, implementation of the project would be consistent with Mission Valley Community Plan policies identifying need for improved mobility and access, installation of modern smart sensor LED lighting on new roadways, and provision of adequate lighting to promote pedestrian and cyclist safety. Further, consistent with design guidelines applicable to development in the River Corridor Subdistrict (and with guidelines specific to the lighting of structures as presented in the San Diego River Park Master Plan), all lighting associated with the project would be shielded, directed downward, and selected to meet the requirements of the City's Multiple Species Conservation Program Land Use Adjacency Guidelines. Lastly, development of a planned bridge that would provide for improved community access and mobility and would span the San Diego River with the assistance of a limited number of concrete piles would minimize impacts to the river corridor (identified as Open Space by the City of San Diego). Development of the bridge substructure and related impacts to existing vegetation in the open space corridor would be mitigated via reseeding or replanting with appropriate native plant species.

As demonstrated in visual simulations prepared for the project (see Figures 3.1-2 through 3.1-7), the proposed bridge would present a mostly horizontal form and line that would minimize overall visibility of the structure and ensure that elements of the bridge would not appear visually intrusive or substantially interrupt existing available views. Rather, the proposed bridge would be visually compatible with existing natural and built features and would generally blend into the existing landscape as a logical extension of existing roadways. See Figures 3.1-2, 3.1-4, and 3.1-5. Therefore, implementation of the project would not conflict with identified policies of the City's General Plan, and, more broadly, construction and operation of the project would not conflict with local regulations governing scenic quality.

Regarding changes to existing visual character and quality, construction of the project would require the removal of some existing vegetation within the proposed work area. However, as previously discussed, vegetation removal would be mitigated via reseeding or replanting with appropriate native plant species and restored areas would be consistent with City's Stadium Wetland Mitigation Site. Also, vegetation removal during Phase 1 of construction would not result in the loss of distinctive or landmark trees (neither distinctive nor landmark trees are identified in the Mission Valley Community Plan), and the visual change associated with site preparation and bridge construction would be transitory and would not result in the substantial adverse alteration of the existing or planned character of the broader Mission Valley area. Once constructed and operational, the perceived bulk, scale, materials, and style of the proposed bridge would be visually compatible with the existing character of the natural and built landscape and would not substantially detract from available views of the river corridor, local hills, and ridgelines. See Figures 3.1-2 through 3.1-7 for depictions of the baseline aesthetic setting and anticipated visual change associated with implementation of the project. As demonstrated in the visual simulations of Viewpoints 2 and 6 (see Figures 3.1-3 and 3.1-7), impacts to existing landform would be minimized through the creation of fill slopes on the northerly approach to the bridge footprint via Fenton Parkway. In addition, as shown in the visual simulations from Viewpoints 1 through 6, the proposed bulk, scale, materials, and style of the bridge would not be out of character with the existing environment. The project would tie into existing roadways and, as viewed from the MTS Stadium Station eastbound platform ramps, the proposed bridge

structure would be viewed alongside existing (and more visually prominent) trolley and I-805 bridges in the landscape (see Figure 3.1-3). The presence of existing bridge (or similar) structures would generally soften the introduction of the proposed Fenton Parkway Bridge into the local landscape. Therefore, impacts to existing visual character and quality would be **less than significant** for either construction method.

Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Pre-Cast and Cast-in-Place Construction Methods

Construction activities for either method would generally occur during daylight hours (i.e., 7:00 a.m. to 7:00 p.m. Monday through Saturday); however, limited nighttime and Sunday work may be required. Occurrences of nighttime construction and use of night lighting are expected to be infrequent and of a brief duration and would be targeted on active areas of construction. Thus, construction would not result in a substantial adverse effect on nighttime views in the area for either method. Once constructed, decorative bridge lighting elements supported by metal posts would operate during evening and night hours. While pole style and luminaire type has yet to be designed, selected lighting would generally be consistent with local (i.e., Community Plan and San Diego River Park Master Plan) policies concerning installation of LED streetlights with adaptive controls, shielding of fixtures, provision of adequate lighting for pedestrian and cyclists, and protection of biological resources. Further, the project is in an existing, urbanized setting that features numerous sources of night lighting outside (and adjacent to) the river corridor; as proposed bridge lighting would not be excessive in number or excessively bright, new lighting sources would not adversely affect day or nighttime views in the area. Similarly, bridge materials, including metallic railing and lighting poles, would operate in an urbanized setting and would not be of excessively reflective materials such that the introduction of these materials would create significant glare that would potentially affect daytime views. As such, impacts would be **less than significant**.

3.1.5 Cumulative Impacts

Would the project contribute to a cumulatively considerable impact to aesthetics?

The geographic scope for the cumulative analysis for aesthetics is the I-8 corridor viewshed through Mission Valley.

Scenic Vistas

Scenic vistas considered in the proposed project analysis consisted of interstates (I-8 and I-805) and prominent peaks in Mission Trails Regional Park including Cowles Mountain and Pyles Peak. More generally, consistent with analysis of scenic vistas presented in the Final EIR for the Mission Valley Community Plan Update, numerous informal scenic vistas and views (including views of the San Diego River, hillsides and ridgelines, and valley landscape) are available in the local community plan area.

As outlined above, the proposed project would have limited visibility from I-8 and the proposed bridge would not result in any blockage of existing views or substantial interruption of available views to the river corridor. Due to intervening terrain and development to the east through Mission Valley, I-5 motorists would not be provided views to the proposed Fenton Parkway Bridge and the bridge would not be readily discernable in the brief, fleeting easterly views to the San Diego River corridor that are available to passing southbound and northbound motorists. Therefore,

the proposed project's impacts would not be cumulatively considerable, and the project would not combine with cumulative development that would be visible from I-8 to create a cumulative scenic vista impact.

Scenic Highways

The nearest state scenic highway to the project site is I-8. As described in the scenic vista discussion above, the proposed project would not result in substantial effects to existing views from the interstate. While site preparation activities would result in the removal of mature vegetation in the San Diego River corridor, tree removal would not be overly distinct as viewed by passing interstate motorists and the overall character of the San Diego River corridor would remain intact. Therefore, due to the fleeting nature of views to construction activities and the anticipated limited effect on the scenic qualities of the river corridor as experienced from the interstate, construction of the project would not result in substantial damage to existing scenic resources within the I-8 viewshed. Because the majority of cumulative projects would not result in the removal of native and natural (i.e., non-landscaping related) trees (cumulative projects considered in this analysis are generally located on previously or currently developed sites in urbanized Mission Valley), the effects of cumulative projects would be dissimilar to those of the project. Because cumulative projects are not anticipated to result in substantial damage to scenic resources (rock outcroppings and trees) within the I-8 viewshed and because the project impacts to scenic resources would be less than significant, the proposed project would not contribute to a cumulatively considerable scenic highway impact associated with damage to rock outcrops and trees.

Conflicts with Zoning and Other Regulations Governing Scenic Quality

As described above in the project-specific analysis, implementation of the project would not conflict with identified scenic quality policies of the City's General Plan, Mission Valley Community Plan, and San Diego River Park Master Plan. Further, the proposed bulk, scale, materials, and style of the bridge would not be out of character with the existing environment; as such, impacts to existing visual character and quality would be less than significant. For cumulative projects under jurisdiction of the City, compliance with zoning and other local regulations would be required and assessed during environmental review. Development associated with these projects would conform to development standards and land use distributions intended to implement the goals and policies of the City's General Plan. The majority of cumulative projects would be subject to design review and other oversight by the City of San Diego and Mission Valley Planning Group. Potential conflicts with established zoning and scenic quality regulations are also assessed during the environmental review process. Also, given the stated intent of the Mission Valley Community Plan to focus on (among other items) infill development in Central Mission Valley and higher density development in Eastern Mission Valley (see Figure 3, Conceptual Changes, in City of San Diego 2019a), projects considered in the cumulative scenario are not anticipated to result in substantial conflict with zoning or other regulations governing scenic quality. Therefore, for the reasons described above and because redevelopment of the project site would be accomplished under the direction of development standards, the proposed project would not contribute to a cumulative considerable impact related to conflicts with zoning or other regulations governing scenic quality.

Light and Glare

Most projects considered in the cumulative scenario would occur on currently developed sites along the I-8 corridor that currently contain multiple nighttime lighting sources and building materials potentially capable of producing glare. However, similar to the proposed project, cumulative projects would be required to assess potential lighting impacts on nearby receptors and identify and recommend measures intended to minimize effects to existing nighttime views. It is assumed that most cumulatively considerable buildings would install hooded and downward

directed lighting to limit light trespass and skyglow opportunities. While the introduction of denser development may result in additional lighting sources in the Mission Valley area, developments would be required to implement measures intended to minimize lighting effects to the extent practicable. Further, where adjacent to the San Diego River, cumulative development proposals would be required to demonstrate compliance with Multiple Species Conservation Plan Land Use Adjacency Guidelines related to reducing light spillover into sensitive habitat areas. Lastly, all cumulative residential development under the jurisdiction of the City would be required to conform to Section 1410.0401, Light Pollution Reduction of Residential Buildings, which includes standards regarding light pollution reduction. Therefore, when combined with cumulative development in the Mission Valley area, the proposed project would not result in a new substantial source of lighting or glare that would substantially affect existing views in the area.

3.1.6 Significant Impacts Prior to Mitigation

As described above, impacts to aesthetics would be **less than significant** and no mitigation would be required**.**

3.1.7 Mitigation Measures

Impacts would be less than significant and no mitigation measures would be required.

3.1.8 Level of Significance After Mitigation

Impacts related to aesthetics would be **less than significant.**

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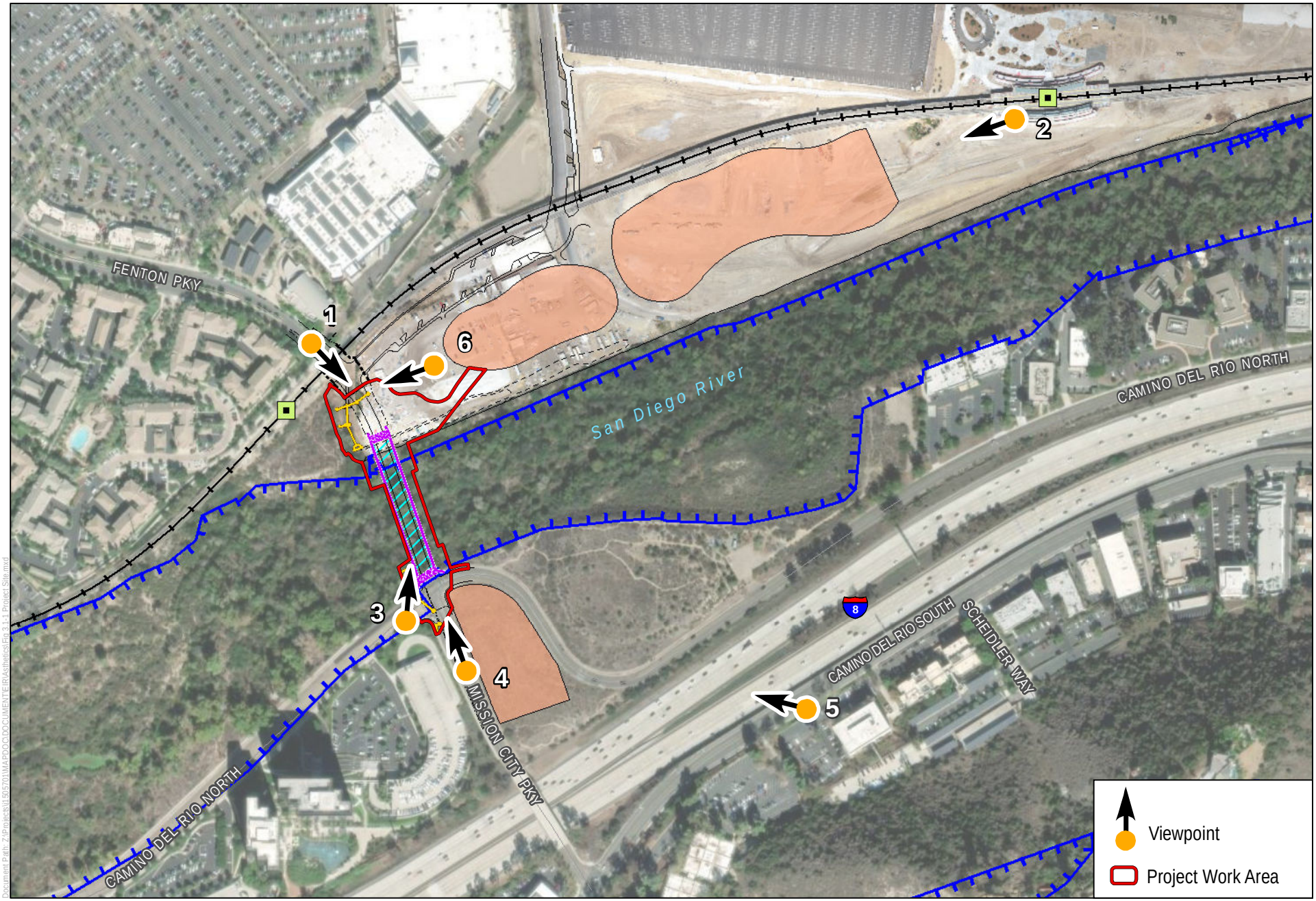

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FIGURE 3.1-1
Viewpoints
Fenton Parkway Bridge Project EIR

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Existing view to the south from Fenton Parkway near MTS Fenton Parkway Trolley Station (Project site located 50 feet away)



Visual Simulation of Project

FIGURE 3.1-2

Viewpoint 1: Southbound Fenton Parkway

Fenton Parkway Bridge Project EIR

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Existing view to west from MTS Trolley Stadium Station (Project site located 0.40 mile away beyond River Park)



Visual Simulation of Project

FIGURE 3.1-3

Viewpoint 2: MTS Trolley Stadium Station

Fenton Parkway Bridge Project EIR

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Existing view from Camino Del Rio North near Mission City Parkway



Visual Simulation of Project

FIGURE 3.1-4

Viewpoint 3: Eastbound Camino Del Rio North

Fenton Parkway Bridge Project EIR

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Existing view to the north from Mission City Parkway (Project site located 350 feet away)



Visual Simulation of Project

FIGURE 3.1-5

Viewpoint 4: Northbound Mission City Parkway

Fenton Parkway Bridge Project EIR

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Existing view to the southwest from westbound Camino Del Rio South (Project site located 0.25 mile away)



Visual Simulation of Project

FIGURE 3.1-6

Viewpoint 5: Westbound Camino Del Rio South

Fenton Parkway Bridge Project EIR

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Existing view to the west from River Park (Project site located 280 feet away)



Visual Simulation of Project

FIGURE 3.1-7

Viewpoint 6: River Park

Fenton Parkway Bridge Project EIR

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3.2 Air Quality

This section describes the existing air quality conditions of the project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Fenton Parkway Bridge Project (project). An Air Quality and Greenhouse Gas Emissions Technical Report was prepared by Dudek in February 2024 and is included herein as Appendix B.

A Notice of Preparation (NOP) was circulated from May 22, 2023, to June 20, 2023. A total of 16 letters were received during this comment period. Comments received on the NOP related to air quality included requests for analysis of long-term GHG impacts. Please see Appendix A, NOP Scoping Comments, for a complete compilation of comments received on the NOP.

3.2.1 Existing Conditions

The primary factors that determine air quality are the locations of air pollutant sources and the amount of pollutants emitted. Meteorological and topographical conditions, however, are also important. Factors such as wind speed and direction, air temperature gradients and sunlight, and precipitation and humidity interact with physical landscape features to determine the movement and dispersal of air pollutants. The project is located within the San Diego Air Basin (SDAB) and is subject to San Diego Air Pollution Control District (SDAPCD) guidelines and regulations. The SDAB is one of 15 air basins that geographically divide California. The unique climate and topographic features of the SDAB that impact air quality in the region are discussed in further detail below.

Climate and Topography

The weather of the San Diego region, as in most of Southern California, is influenced by the Pacific Ocean and its semi-permanent high-pressure systems that result in dry, warm summers and mild, occasionally wet winters. The average temperature ranges (in degrees Fahrenheit [°F]) from the mid-40s to the high 90s. Most of the region's precipitation falls from November to April, with infrequent (approximately 10%) precipitation during the summer. The average seasonal precipitation along the coast is approximately 10 inches; the amount increases with elevation as moist air is lifted over the mountains (WRCC 2016).

The topography in the San Diego region varies greatly, from beaches on the west to mountains and desert on the east; along with local meteorology, topography influences the dispersal and movement of pollutants in the SDAB. The mountains to the east prohibit dispersal of pollutants in that direction and help trap them in inversion layers.

The interaction of ocean, land, and the Pacific High-Pressure Zone maintains clear skies for much of the year and influences the direction of prevailing winds (westerly to northwesterly). Local terrain is often the dominant factor inland, and winds in inland mountainous areas tend to blow through the valleys during the day and down the hills and valleys at night.

San Diego Air Basin Climatology

The SDAB lies in the southwest corner of California and comprises the entire San Diego region, covering 4,260 square miles, and is an area of high air pollution potential. The SDAB experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

The SDAB experiences frequent temperature inversions. Subsidence inversions occur during the warmer months as descending air associated with the Pacific High-Pressure Zone meets cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. The other type of inversion, a radiation inversion, develops on winter nights when air near the ground cools by heat radiation and air aloft remains warm. The shallow inversion layer formed between these two air masses also can trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce ozone (O_3), which contributes to the formation of smog. Smog is a combination of smoke and other particulates, O_3, hydrocarbons, oxides of nitrogen (NO_x) and other chemically reactive compounds which, under certain conditions of weather and sunlight, may result in a murky brown haze that causes adverse health effects (CARB 2022a).

Light daytime winds, predominately from the west, further aggravate the condition by driving air pollutants inland, toward the mountains. During the fall and winter, air quality problems are created due to carbon monoxide (CO) and NO_x emissions. CO concentrations are generally higher in the morning and late evening. In the morning, CO levels are elevated due to cold temperatures and the large number of motor vehicles traveling. Higher CO levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the SDAB are associated with heavy traffic. Nitrogen dioxide (NO_2) levels are also generally higher during fall and winter days.

Under certain conditions, atmospheric oscillation results in the offshore transport of air from the Los Angeles region to San Diego County (County). This often produces high O_3 concentrations, as measured at air pollutant monitoring stations within the County. The transport of air pollutants from Los Angeles to San Diego has also occurred within the stable layer of the elevated subsidence inversion, where high levels of O_3 are transported.

Pollutants and Effects

Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The national and California standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O_3, NO_2, CO, sulfur dioxide (SO_2), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$), and lead. In California, sulfates, vinyl chloride,

hydrogen sulfide (H_2S), and visibility-reducing particles are also regulated as criteria air pollutants. These pollutants, as well as toxic air contaminants (TACs), are discussed in the following paragraphs.[1]

Ozone. O_3 is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O_3 precursors. These precursors are mainly NO_x and volatile organic compounds (VOCs). The maximum effects of precursor emissions on O_3 concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O_3 formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O_3 exists in the upper atmosphere O_3 layer (stratospheric O_3) and at the Earth's surface in the troposphere (ground-level O_3).[2] The O_3 that the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O_3 is a harmful air pollutant that causes numerous adverse health effects and is thus considered "bad" O_3. Stratospheric, or "good," O_3 occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric O_3 layer, plant and animal life would be seriously harmed.

O_3 in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2020b).

Inhalation of O_3 causes inflammation and irritation of the tissues lining human airways, causing and worsening a variety of symptoms. Exposure to O_3 can reduce the volume of air that the lungs breathe in, thereby causing shortness of breath. O_3 in sufficient doses increases the permeability of lung cells, rendering them more susceptible to toxins and microorganisms. The occurrence and severity of health effects from O_3 exposure vary widely among individuals, even when the dose and the duration of exposure are the same. Research shows adults and children who spend more time outdoors participating in vigorous physical activities are at greater risk from the harmful health effects of O_3 exposure. While there are relatively few studies on the effects of O_3 on children, the available studies show that children are no more or less likely to suffer harmful effects than adults. However, there are a number of reasons why children may be more susceptible to O_3 and other pollutants. Children and teens spend nearly twice as much time outdoors and engaged in vigorous activities as adults. Children breathe more rapidly than adults and inhale more pollution per pound of their body weight than adults. Also, children are less likely than adults to notice their own symptoms and avoid harmful exposures. Further research may be able to better distinguish between health effects in children and adults. Children, adolescents, and adults who exercise or work outdoors, where O_3 concentrations are the highest, are at the greatest risk of harm from this pollutant (CARB 2022b).

Nitrogen Dioxide. NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide, which is a colorless, odorless gas. NO_x plays a major role, together with VOCs, in the atmospheric reactions that produce O_3. NO_x

1 The descriptions of the criteria air pollutants and associated health effects are based on the U.S. Environmental Protection Agency's "Criteria Air Pollutants" (EPA 2020a), as well as the California Air Resources Board's "Glossary" (CARB 2022a) and "Fact Sheet: Air Pollution Sources, Effects and Control" (CARB 2009).

2 The troposphere is the layer of the Earth's atmosphere nearest to the surface of the Earth. The troposphere extends outward about 5 miles at the poles and about 10 miles at the equator.

is formed from fuel combustion under high temperature or pressure. In addition, NO_x is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers. NO_2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections (EPA 2016).

A large body of health science literature indicates that exposure to NO_2 can induce adverse health effects. The strongest health evidence, and the health basis for the ambient air quality standards for NO_2, results from controlled human exposure studies that show that NO_2 exposure can intensify responses to allergens in allergic asthmatics. In addition, a number of epidemiological studies have demonstrated associations between NO_2 exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses. Infants and children are particularly at risk because they have disproportionately higher exposure to NO_2 than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration. Several studies have shown that long-term NO_2 exposure during childhood, the period of rapid lung growth, can lead to smaller lungs at maturity in children with higher levels of exposure compared to children with lower exposure levels. In addition, children with asthma have a greater degree of airway responsiveness compared with adult asthmatics. In adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease (CARB 2022c).

Carbon Monoxide. CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, such as the project location, automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

CO is harmful because it binds to hemoglobin in the blood, reducing the ability of blood to carry oxygen. This interferes with oxygen delivery to the body's organs. The most common effects of CO exposure are fatigue, headaches, confusion and reduced mental alertness, light-headedness, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies whose mothers experience high levels of CO exposure during pregnancy are at risk of adverse developmental effects. Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO (CARB 2022d).

Sulfur Dioxide. SO_2 is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest levels of SO_2 are generally found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels.

Controlled human exposure and epidemiological studies show that children and adults with asthma are more likely to experience adverse responses with SO_2 exposure, compared with the non-asthmatic population. Effects at levels near the 1-hour standard are those of asthma exacerbation, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath, and chest tightness, especially during exercise or physical activity. Also, exposure at elevated levels of SO_2 (above 1 part per million) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality. Older people and people with cardiovascular disease or chronic lung disease (such as bronchitis or emphysema) are most likely to experience these adverse effects (CARB 2022e).

SO_2 is of concern both because it is a direct respiratory irritant and because it contributes to the formation of sulfate and sulfuric acid in particulate matter (NRC 2005). People with asthma are of particular concern, both because they have increased baseline airflow resistance and because their SO_2-induced increase in airflow resistance is greater than in healthy people, and it increases with the severity of their asthma (NRC 2005). SO_2 is thought to induce airway constriction via neural reflexes involving irritant receptors in the airways (NRC 2005).

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Coarse particulate matter (PM_{10}) consists of particulate matter that is 10 microns or less in diameter, which is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. Fine particulate matter ($PM_{2.5}$) consists of particulate matter that is 2.5 microns or less in diameter, which is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur oxides (SO_x), NO_x, and VOCs.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the bloodstream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases such as chlorides or ammonium into the lungs, also causing injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle and produce haze and reduce regional visibility.

Several adverse health effects have been associated with exposure to both $PM_{2.5}$ and PM_{10}. For $PM_{2.5}$, short-term exposures (up to 24-hour duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases. In addition, of all of the common air pollutants, $PM_{2.5}$ is associated with the greatest proportion of adverse health effects related to air pollution, both in the United States and worldwide based on the World Health Organization's Global Burden of Disease Project. Short-term exposures to PM_{10} have been associated primarily with worsening of respiratory diseases, including

asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits (CARB 2023a).

Long-term exposure (months to years) to $PM_{2.5}$ has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children. The effects of long-term exposure to PM_{10} are less clear, although several studies suggest a link between long-term PM_{10} exposure and respiratory mortality. The International Agency for Research on Cancer published a review in 2015 that concluded that particulate matter in outdoor air pollution causes lung cancer (CARB 2023a).

Lead. Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phaseout of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phaseout of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient (IQ) performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

Sulfates. Sulfates are the fully oxidized form of sulfur, which typically occur in combination with metals or hydrogen ions. Sulfates are produced from reactions of SO_2 in the atmosphere and can result in respiratory impairment, as well as reduced visibility.

Vinyl Chloride. Vinyl chloride is a colorless gas with a mild, sweet odor, which has been detected near landfills, sewage plants, and hazardous waste sites, due to the microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in air can cause nervous system effects, such as dizziness, drowsiness, and headaches. Long-term exposure through inhalation can cause liver damage, including liver cancer.

Hydrogen Sulfide. H_2S is a colorless and flammable gas that has a characteristic odor of rotten eggs. Sources of H_2S include geothermal power plants, petroleum refineries, sewers, and sewage treatment plants. Exposure to H_2S can result in nuisance odors, as well as headaches and breathing difficulties at higher concentrations.

Visibility-Reducing Particles. Visibility-reducing particles are any particles in the air that obstruct the range of visibility. Effects of reduced visibility can include obscuring the viewshed of natural scenery, reducing airport safety, and discouraging tourism. Sources of visibility-reducing particles are the same as for $PM_{2.5}$.

Volatile Organic Compounds. Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O_3 are referred to and regulated as VOCs (also referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects of VOCs result from the formation of O_3 and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate ambient air quality standards for VOCs as a group.

Non-Criteria Air Pollutants

Toxic Air Contaminants. A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic non-cancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In the State of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and non-carcinogenic effects. Non-carcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Diesel Particulate Matter. Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90% of DPM is less than 1 micrometer in diameter (about 1/70 the diameter of a human hair), making it a subset of $PM_{2.5}$ (CARB 2022f). DPM is typically composed of carbon particles ("soot," also called black carbon) and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene (CARB 2022f). CARB classified "particulate emissions from diesel-fueled engines" (i.e., DPM) (17 CCR 93000) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines: on-road diesel engines, including trucks, buses, and cars, and off-road diesel engines, including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000). Because it is part of $PM_{2.5}$, DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies (CARB 2022f). Those most vulnerable to non-cancer health effects are children, whose lungs are still developing, and older people, who often have chronic health problems.

Odorous Compounds. Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. In a phenomenon known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

Valley Fever. Coccidioidomycosis, more commonly known as "valley fever," is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. The fungus is very prevalent in the soils of California's San Joaquin Valley, particularly in Kern County. The ecologic factors that appear to be most conducive to survival and replication of the spores are high summer temperatures, mild winters, sparse rainfall, and alkaline, sandy soils.

San Diego County is not considered a highly endemic region for valley fever, as the latest report from the County's Health and Human Services Agency Public Health Services indicated the County has 13.5 cases per 100,000 people (County of San Diego 2023). In the zip code of the project site, the case rate is reported as less than or equal to 4.9 cases per 100,000 people during the period between 2011 and 2020 (County of San Diego 2021).

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air-pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses where air-pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005). The City of San Diego adopts the South Coast Air Quality Management District sensitive receptor definition, which identifies examples as long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences—such as medical patients in homes, schools, playgrounds, childcare centers, and athletic facilities (City of San Diego 2022a).

The nearest sensitive receptors are existing multifamily residences located adjacent to the northwest of the project's boundaries. These existing sensitive receptors represent the nearest land uses with the potential to be impacted by construction and operation of the project.

3.2.2 Relevant Plans, Policies, and Ordinances

Federal

Federal Clean Air Act – Criteria Air Pollutants

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. EPA is responsible for implementing most aspects of the Clean Air Act, including setting National Ambient Air Quality Standards (NAAQS) for major air pollutants; setting hazardous air pollutant (HAP)

standards; approving state attainment plans; setting motor vehicle emission standards; issuing stationary source emission standards and permits; and establishing acid rain control measures, stratospheric O_3 protection measures, and enforcement provisions. Under the Clean Air Act, NAAQS are established for the following criteria pollutants: O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for O_3, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O_3, NO_2, SO_2, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare State Implementation Plans (SIPs) that demonstrate how those areas will attain the NAAQS within mandated time frames.

Federal Clean Air Act – Hazardous Air Pollutants

The 1977 federal Clean Air Act amendments required EPA to identify national emission standards for HAPs to protect public health and welfare. HAPs include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 federal Clean Air Act Amendments, which expanded the control program for HAPs, 187 substances and chemical families were identified as HAPs.

State

California Ambient Air Quality Standards

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the federal Clean Air Act, and regulating emissions from motor vehicles and consumer products.

CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS. As stated previously, an ambient air quality standard defines the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without harm to the public's health. For each pollutant, concentrations must be below the relevant CAAQS before a basin can attain the corresponding CAAQS. Air quality is considered "in attainment" if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM_{10}, and $PM_{2.5}$ and visibility-reducing particles are values that are not to be exceeded.

California air districts have based their thresholds of significance for CEQA purposes on the levels that scientific and factual data demonstrate that the air basin can accommodate without affecting the attainment date for the NAAQS or CAAQS. Since an ambient air quality standard is based on maximum pollutant levels in outdoor air that would not harm the public's health, and air district thresholds pertain to attainment of the ambient air quality standard, this means that the thresholds established by air districts are also protective of human health. The NAAQS and CAAQS are presented in Table 3.2-1.

Table 3.2-1. Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	Primary[c,d]	Secondary[c,e]
O_3	1 hour	0.09 ppm (180 µg/m³)	—	Same as primary standard[f]
	8 hours	0.070 ppm (137 µg/m³)	0.070 ppm (137 µg/m³)[f]	
NO_2[g]	1 hour	0.18 ppm (339 µg/m³)	0.100 ppm (188 µg/m³)	Same as primary standard
	Annual arithmetic mean	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)	
CO	1 hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	None
	8 hours	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	
SO_2[h]	1 hour	0.25 ppm (655 µg/m³)	0.075 ppm (196 µg/m³)	—
	3 hours	—	—	0.5 ppm (1,300 µg/m³)
	24 hours	0.04 ppm (105 µg/m³)	0.14 ppm (for certain areas)[g]	—
	Annual	—	0.030 ppm (for certain areas)[g]	—
PM_{10}[i]	24 hours	50 µg/m³	150 µg/m³	Same as primary standard
	Annual arithmetic mean	20 µg/m³	—	
$PM_{2.5}$[i]	24 hours	—	35 µg/m³	Same as primary standard
	Annual arithmetic mean	12 µg/m³	12.0 µg/m³	15.0 µg/m³
Lead[j,k]	30-day average	1.5 µg/m³	—	—
	Calendar quarter	—	1.5 µg/m³ (for certain areas)[k]	Same as primary standard
	Rolling 3-month average	—	0.15 µg/m³	
H_2S	1 hour	0.03 ppm (42 µg/m³)	—	—
Vinyl chloride[j]	24 hours	0.01 ppm (26 µg/m³)	—	—
Sulfates	24 hours	25 µg/m³	—	—
Visibility reducing particles	8 hours (10:00 a.m. to 6:00 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to the number of particles when the relative humidity is less than 70%	—	—

Source: CARB 2016.
Notes: O_3 = ozone; ppm = parts per million by volume; µg/m³ = micrograms per cubic meter; NO_2 = nitrogen dioxide; CO = carbon monoxide; mg/m³= milligrams per cubic meter; SO_2 = sulfur dioxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; H_2S = hydrogen sulfide; PST = Pacific Standard Time.

[a] California standards for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, 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. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site 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/m³ is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] National primary standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

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

[f] On October 1, 2015, the national 8-hour O_3 primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[g] To attain the national 1-hour standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[h] On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the national 1-hour standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[l] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m³ were also retained. The form of the annual primary and secondary standards is the annual mean averaged over 3 years.

[j] CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[K] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5-µg/m3 as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

Toxic Air Contaminants

The state Air Toxics Program was established in 1983 under AB 1807. The California TAC list identifies more than 200 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. In accordance with AB 2728, the state list includes the (federal) HAPs. In 1987, the Legislature enacted the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) to address public concern over the release of TACs into the atmosphere. AB 2588 law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years. TAC emissions from individual facilities are quantified and prioritized. "High-priority" facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, the facility operator is required to communicate the results to the public in the form of notices and public meetings.

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines (CARB 2000). The regulation is anticipated to result in an 80% decrease in statewide diesel health risk in 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road

Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment program. These regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. CARB has adopted several Airborne Toxic Control Measures (ATCMs) that reduce diesel emissions, including the following:

- Diesel Particulate Matter Control Measure for On-Road Heavy-Duty Diesel-Fueled Residential and Commercial Solid Waste Collection Vehicles (13 CCR 2020, 13 CCR 2021)
- ATCM for Diesel Particulate Matter from Portable Engines Rated 50 horsepower and greater (17 CCR 93116)
- ATCM for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities where TRUs operate (13 CCR 2477 and Article 8)
- ATCM to limit diesel-fueled commercial motor vehicle idling (13 CCR 2485)
- ATCM for In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.)
- ATCM for In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025)

In addition, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) requires stationary sources to report the types and quantities of certain substances released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels.

California Health and Safety Code Section 41700

Section 41700 of the California Health and Safety Code states that a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any of those persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property. Section 41700 also applies to sources of objectionable odors.

Air Quality and Land Use Handbook

CARB published the Air Quality and Land Use Handbook in 2005 to provide important air quality information about certain types of facilities (e.g., freeways, refineries, distribution centers) that should be considered when siting sensitive land uses such as residences. CARB provides recommended siting distances from certain types of facilities when locating new sensitive land uses. The recommendations are advisory and should not be interpreted as defined buffer zones. If a project is within the siting distance, CARB recommends further analysis. Where possible, CARB recommends a minimum separation between new sensitive land uses and existing sources.

Local

Local Ambient Air Quality

CARB, air districts, and other agencies monitor ambient air quality at approximately 250 air quality monitoring stations across the state. The SDAPCD monitors local ambient air quality in the vicinity of the project site. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. The most recent background ambient air quality data from 2019 to 2021 are presented in Table 3.2-2.

The San Diego-Kearny Villa Road monitoring station, located at 6125A Kearny Villa Road, San Diego, California, is the air quality monitoring station nearest to the project site, located approximately 4.5 miles north of the project site. The data collected at this station is considered representative of the air quality experienced in the project vicinity. Air quality data for 8-hour O_3, NO_2, and $PM_{2.5}$ from the Kearny Villa Road monitoring station are provided in Table 3.2-2. Because CO, PM_{10}, and SO_2 are not monitored at the Kearny Villa Road monitoring station, these measurements were taken from the El Cajon monitoring station located at 533 First Street, El Cajon, California (approximately 11 miles east of the project site). The number of days exceeding the ambient air quality standards are also shown in Table 3.2-2.

Table 3.2-2. Local Ambient Air Quality Data

Averaging Time	Unit	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
				2019	2020	2021	2019	2020	2021
Ozone (O_3)[a]									
Maximum 1-hour concentration	ppm	California	0.12	0.083	0.123	0.095	0	2	1
Maximum 8-hour concentration	ppm	California	0.070	0.079	0.081	0.081	1	12	2
		National	0.070	0.071	0.072	0.070	1	10	1
Nitrogen Dioxide (NO_2)[a]									
Maximum 1-hour concentration	ppm	California	0.18	0.047	0.048	0.047	0	0	0
		National	0.100	0.039	0.039	0.035	0	0	0
Annual concentration	ppm	California	0.030	0.009	0.008	0.008	N/A	N/A	N/A
		National	0.053	0.008	0.007	0.007	N/A	N/A	N/A
Carbon Monoxide (CO)[b]									
Maximum 1-hour concentration	ppm	California	20	N/A	N/A	N/A	0	0	0
		National[c]	35	1.3	1.5	1.2	0	0	0
Maximum 8-hour concentration	ppm	California	9.0	N/A	N/A	N/A	0	0	0
		National	9	1.0	1.4	1.1	0	0	0
Sulfur Dioxide (SO_2)[b]									
Maximum 1-hour concentration	ppm	National[b]	0.075	0.0008	0.0017	0.0016	0	0	0
Maximum 24-hour concentration	ppm	National	0.14	0.0003	0.0004	0.0003	0	0	0
Annual concentration	ppm	National	0.030	0.00007	0.00009	0.00006	N/A	N/A	N/A

Table 3.2-2. Local Ambient Air Quality Data

Averaging Time	Unit	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
				2019	2020	2021	2019	2020	2021
Coarse Particulate Matter (PM_{10})[b]									
Maximum 24-hour concentration	µg/m³	California	50	37.4	*	*	0	0	0
		National	150	38.7	55.0	40.0	0	0	0
Annual concentration	µg/m³	California	20	*	*	*	N/A	N/A	N/A
Fine Particulate Matter ($PM_{2.5}$)[a]									
Maximum 24-hour concentration	µg/m³	National	35	16.2	47.5	20.9	0	5.8	0
Annual concentration	µg/m³	California	12	8.0	*	*	N/A	N/A	N/A
		National	12.0	7.1	8.9	7.9	0	0	0

Sources:
[a] CARB 2023b
[b] EPA 2023.
Notes: ppm = parts per million by volume; N/A = not available; µg/m³ = micrograms per cubic meter; * = insufficient data available to determine the value.

San Diego Air Basin Attainment Designation

Pursuant to the 1990 Clean Air Act Amendments, EPA classifies air basins (or portions thereof) as in "attainment" or "nonattainment" for each criteria air pollutant, based on whether the NAAQS have been achieved. Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as in attainment for that pollutant. If an area exceeds the standard, the area is classified as in nonattainment for that pollutant. As previously discussed, these standards are set by EPA or CARB for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare. If there are not enough data available to determine whether the standard is exceeded in an area, the area is designated as "unclassified" or "unclassifiable."

The designation of "unclassifiable/attainment" means that the area meets the standard or is expected to be meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are redesignated as maintenance areas and must have approved maintenance plans to ensure continued attainment of the standards. The California Clean Air Act, like its federal counterpart, called for the designation of areas as in "attainment" or "nonattainment," but based on the CAAQS rather than the NAAQS.

Table 3.2-3 summarizes SDAB's federal and state attainment designations for each of the criteria pollutants.

Table 3.2-3. San Diego Air Basin Attainment Designation

Pollutant	Designation/Classification	
	National Standards	California Standards
O_3 (8-hour)	Nonattainment	Nonattainment
O_3 (1-hour)	Attainment[a]	Nonattainment

Table 3.2-3. San Diego Air Basin Attainment Designation

Pollutant	Designation/Classification	
	National Standards	California Standards
CO	Attainment	Attainment
PM_{10}	Unclassifiable[b]	**Nonattainment**
$PM_{2.5}$	Attainment	**Nonattainment**[c]
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
H_2S	(No federal standard)	Unclassified
Visibility-reducing particles	(No federal standard)	Unclassified
Vinyl chloride	(No federal standard)	No designation

Source: SDAPCD 2023a.
Designation/Classification Definitions: attainment = meets the standards; nonattainment = does not meet the standards; unclassified or unclassifiable = insufficient data to classify.
Notes: O_3 = ozone; CO = carbon monoxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; NO_2 = nitrogen dioxide; SO_2 = sulfur dioxide; H_2S = hydrogen sulfide.

[a] The federal 1-hour standard of 0.12 parts per million (ppm) was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in SIPs.

[b] At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

[c] CARB has not reclassified the region to attainment yet due to (1) incomplete data, and (2) the use of non-California Approved Samplers (CAS). While data collected does meet the requirements for designation of attainment with federal $PM_{2.5}$ standards, the data completeness requirements for state $PM_{2.5}$ standards substantially exceed federal requirements and mandates, and have historically not been feasible for most air districts to adhere to given local resources. APCD has begun replacing most regional filter-based $PM_{2.5}$ monitors as they reach the end of their useful life with continuous $PM_{2.5}$ air monitors to ensure collected data meets stringent completeness requirements in the future. APCD anticipates these new monitors will be approved as "CAS" monitors once CARB review the list of approved monitors, which has not been updated since 2013.

As shown in Table 3.2-3, the SDAB is designated as a nonattainment area for federal O_3 standards and state O_3, PM_{10}, and $PM_{2.5}$ standards (SDAPCD 2023). The SDAB is designated as an attainment or unclassified area for all other criteria air pollutants.

San Diego Air Pollution Control District

While CARB is responsible for the regulation of mobile emission sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources. The project site is located within the SDAB and is subject to the guidelines and regulations of SDAPCD.

In the County, O_3 and particulate matter are the pollutants of main concern since exceedances of CAAQS for those pollutants are experienced here in most years. For this reason, the SDAB has been designated as a nonattainment area for the state PM_{10}, $PM_{2.5}$, and O_3 standards. The SDAB is also a federal O_3 attainment (maintenance) area for 1997 8-hour O_3 standard, an O_3 nonattainment area for the 2008 8-hour O_3 standard, and a CO maintenance area (western and central part of the SDAB only). The project site is in the CO maintenance area.

Federal Attainment Plans

In November 2020, the SDAPCD adopted the Air Quality Management Plan for attaining the federal 8-hour 75 parts per billion (ppb) and 70 ppb O_3 standards (2020 Attainment Plan), which is the SDAB's input to the SIP and required to demonstrate how the SDACPD proposes to attain the federal O_3 standards. The plan anticipates attainment of the 75 ppb and 70 ppb NAAQS standards by 2026 and 2032, respectively. The 2020 Attainment Plan includes planning requirements for attaining the O_3 NAAQS, including on-road motor vehicle emissions budgets for transportation conformity, a vehicle miles traveled (VMT) offset demonstration, Reasonably Available Control Measures, Reasonable Further Progress, an Attainment Demonstration, and contingency measures in the event of a failure to meet a milestone or to attain by the predicted attainment date (SDAPCD 2020).

State Attainment Plans

SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The Regional Air Quality Strategy (RAQS) for the SDAB was initially adopted in 1991 and is updated every 3 years, most recently in 2022 (SDAPCD 2023b). The RAQS outlines SDAPCD's plans and control measures designed to attain the CAAQS for O_3. The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County and the cities in the County, to forecast future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. The CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the County as part of the development of their general plans (SANDAG 2021).

On March 9, 2023, SDAPCD adopted the revised 2022 RAQS for the County. The RAQS plan demonstrates how the San Diego region will further reduce air pollution emissions to meet state health-based standards for ground-level O_3. The 2022 RAQS guides the SDAPCD in deploying tools, strategies, and resources to continue reducing pollutants that are precursors to ground-level O_3, including NO_x and VOC. The 2022 RAQS emphasizes O_3 control measures but also identifies complementary measures and strategies that can reduce emissions of greenhouse gases and particulate matter. It also includes new analyses exploring O_3 and its relationship to public health, mobile sources, under-resourced communities, and greenhouse gases and climate change. Further, the 2022 RAQS identifies strategies to expand SDAPCD regional partnerships, identify more opportunities to engage the public and communities of concern, and integrate environmental justice and equity across all proposed measures and strategies.

Regarding particulate matter emissions reduction efforts, in December 2005, SDAPCD prepared a report titled "Measures to Reduce Particulate Matter in San Diego County" to address implementation of Senate Bill 656 in San Diego County (Senate Bill 656 required additional controls to reduce ambient concentrations of PM_{10} and $PM_{2.5}$) (SDAPCD 2005). In the report, SDAPCD evaluated the implementation of source-control measures that would reduce particulate matter emissions associated with residential wood combustion; various construction activities including earthmoving, demolition, and grading; bulk material storage and handling; carryout and trackout removal and cleanup methods; inactive disturbed land; disturbed open areas; unpaved parking lots/staging areas; unpaved roads; and windblown dust (SDAPCD 2005).

SDAPCD Rules and Regulations

As stated previously, SDAPCD is responsible for planning, implementing, and enforcing federal and state ambient standards in the SDAB. The following rules and regulations apply to all sources in the jurisdiction of SDAPCD:

- **SDAPCD Regulation IV: Prohibitions; Rule 50: Visible Emissions.** Prohibits any activity causing air contaminant emissions darker than 20% opacity for more than an aggregate of 3 minutes in any consecutive 60-minute time period. In addition, Rule 50 prohibits any diesel pile-driving hammer activity causing air contaminant emissions for a period or periods aggregating more than 4 minutes during the driving of a single pile (SDAPCD 1997).
- **SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance.** Prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property (SDAPCD 1976).
- **SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust.** Regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project site (SDAPCD 2009).
- **SDAPCD Regulation IV: Prohibitions; Rule 67.0.1: Architectural Coatings.** Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2015).

San Diego Association of Governments

SANDAG serves as the metropolitan planning organization and council of governments for the San Diego region. SANDAG brings together decision makers to develop solutions to regional issues including improving equity, transportation, air quality, clean energy, economic development, goods movement, public health, public safety, and housing. To address these regional issues, SANDAG is responsible for developing the Regional Transportation Plan and incorporated Sustainable Communities Strategy. The Regional Transportation Plan/Sustainable Communities Strategy is updated every 4 years in collaboration with the 18 cities and unincorporated County, in addition to regional, state, and federal partners. The most recent version, San Diego Forward: The 2021 Regional Plan was adopted in 2021 and includes five key transportation strategies, including complete corridors, high-speed transit services, mobility hubs, flexible fleets, and a digital platform to tie the transportation system together (SANDAG 2021).

3.2.3 Significance Criteria

The significance criteria used to evaluate the project impacts to air quality are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to air quality would occur if the project would:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.
3. Expose sensitive receptors to substantial pollutant concentrations.
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether a project would have a significant impact on air quality.

As part of its air quality permitting process, SDAPCD has established thresholds in Rule 20.2 requiring the preparation of air quality impact assessments for permitted stationary sources. SDAPCD sets forth quantitative emission thresholds below which a stationary source would not have a significant impact on ambient air quality. Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 3.2-4 were exceeded.[3] Emissions below the screening-level thresholds would not cause a significant impact. For nonattainment pollutants, if emissions exceed the thresholds shown in Table 3.2-4, the project could have the potential to result in a cumulatively considerable net increase in these pollutants and thus could have a significant impact on the ambient air quality.

For CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that the project's total emissions would or would not result in a significant impact to air quality.

Table 3.2-4. Screening-Level Thresholds for Air Quality Impact Analysis

Pollutant	Total Emissions (pounds per Day)
Volatile Organic Compounds (VOC)	137[a]
Oxides of Nitrogen (NO_x)	250
Carbon Monoxide (CO)	550
Oxides of Sulfur (SO_x)	250
Respirable Particulate Matter (PM_{10})	100
Fine Particulate Matter ($PM_{2.5}$)	67

Sources: City of San Diego 2022b; SDAPCD 2021.
Note:
[a] VOC threshold based on the significance thresholds recommended by the Monterey Bay Unified Air Pollution Control District for the North Central Coast Air Basin, which has similar federal and state attainment status as the SDAB for O_3.

SDAPCD Rule 1200 (Toxic Air Contaminant – New Source Review) applies to projects requiring an Authority to Construct or Permit to Operate from the SDAPCD, which the proposed project does not require; however, the risk management policies in the rule are informative for establishing acceptable health risks. Under Rule 1200, permits to operate may not be issued when emissions of TACs result in an incremental cancer risk greater than 1 in 1 million without application of Toxics-Best Available Control Technology (T-BACT), or an incremental cancer risk greater than 10 in 1 million with application of T-BACT, or a health hazard index (chronic and acute) greater than one. SDAPCD Rule 1210 (Toxic Air Contaminant Health risk – Public Notification & Risk Reduction) defines a "significant risk threshold" as a maximum individual cancer risk equal to or greater than 10 in one million, total acute noncancer health hazard index equal to or greater than 1.0, and a total chronic noncancer health hazard index equal to or greater than 1.0. The SDAPCD significant risk threshold for toxic air contaminants has been applied to the proposed project as the CEQA threshold of significance.

[3] The SDAPCD Rule 20.2 and 20.3 trigger levels are specified for new or modified stationary sources and do not generally apply to mobile sources or general land development projects. However, both the City and County of San Diego have recommended the trigger levels for evaluation of increased emissions discharged to the SDAB from proposed land development projects.

SDAPCD Rule 51 (Public Nuisance) prohibits emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person (SDAPCD 1976). A project that involves a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors.

3.2.4 Impacts Analysis

The California Emissions Estimator Model (CalEEMod) 2022 Version 2022.1 was used to estimate emissions from construction of the project (CAPCOA 2022). CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant and greenhouse gas emissions associated with construction activities and operation of a variety of land use projects, including bridge construction and other linear projects. CalEEMod input parameters, including the land use type used to represent the project and its size, construction schedule, and anticipated use of construction equipment, were based on information provided by the applicant or default model assumptions if project specifics were unavailable. The project would result in a net reduction in vehicle miles traveled in the region and there would only be a nominal increase in emissions with project operation (e.g., routine maintenance). Accordingly, operational criteria air pollutant emissions were not estimated and were assessed qualitatively.

Construction Emissions

The project would involve construction of a vehicular and bicycle/pedestrian bridge spanning the San Diego River from north to south, connecting Fenton Parkway and Camino Del Rio North. In addition to bridge infrastructure, construction would also include roadway expansion and other off-site improvements. For purposes of the analysis both construction methods, pre-cast and cast-in-place, were modeled for the conventional pre-stressed concrete girder structure.

For the purposes of this analysis, two potential construction methods were evaluated, pre-cast and cast-in-place. Conceptual schedules were developed based on available information provided by the project engineers, typical construction practices, and CalEEMod default assumptions. Construction phasing is intended to represent a schedule of anticipated activities for use in estimating potential project-generated construction emissions.

Pre-Cast Bridge Construction

The project was assumed to require the following construction phases, with likely overlaps provided by project engineers (durations are approximate):

- Environmentally sensitive area fencing, clearing, grubbing, and mobilization: 3 weeks
- CIDH piles (Piers 2,3,4): 4 weeks
- Ground improvements (Abut 1): 3 weeks
- Column form, rebar, pour (Piers 2,3,4): 6 weeks
- Embankment grading (Abut 1): 1 week
- Excavation (Abut 1): 1 week
- Ground improvements (Abut 5): 3 weeks
- Cap falsework (Piers 2,3,4): 6 weeks
- Cap form, rebar, pour (Piers 2,3,4): 7 weeks

- Embankment grading (Abut 5): 1 week
- Excavation (Abut 5): 1 week
- Form, rebar, pour (Abuts 1 and 5, Stem, Walls, and Diaphragms and Deck): 22 weeks
- Erect precast girders: 1 week
- Cure deck, strip overhangs: 2 weeks
- Riprap (Abuts 1 and 5): 4 weeks
- Sidewalk barrier installation and deck grind: 3 weeks

Pre-Cast Bridge Off-Site Improvements

- Grubbing and land clearing: 1 week
- Grading and excavation: 2.5 weeks
- Drainage, utilities, and sub-grade: 2 weeks
- Paving: 1 week
- Architectural coating: 1 week

Table 3.2-5 provides the construction equipment mix and vehicle trips assumed for estimating project-generated construction emissions associated with each phase of a pre-cast bridge.

Table 3.2-5. Pre-Cast Construction Method Scenario Assumptions

Phase	One-Way Trips per Day			Equipment		
	Worker	Vendor	Haul	Type	Quantity	Hrs/day
Bridge Construction						
General Construction	24	0	0	Aerial lift	1	8
				Air compressors	1	8
				Cranes	1	8
				Forklifts	1	8
				Generator sets	4	8
				Welders	1	8
ESA Fencing; Clear and Grub; Mobilization	16	4	8	Excavators	1	8
				Graders	1	8
				Loader	1	8
				Bulldozer	1	8
				Scrapers	1	8
				Chipper	1	8
CIDH Piles (Piers 2, 3, 4)	20	338	0	Bore/drill rig	1	8
				Cranes	1	8
				Rubber-tired loaders	1	8
				Generator sets	3	8
Ground Improvements (Abut 1)	10	6	26	Cranes	1	10
				Drill rig	1	10
				Generator/powerpack	1	10
				Air compressor	1	10

Table 3.2-5. Pre-Cast Construction Method Scenario Assumptions

Phase	One-Way Trips per Day			Equipment		
				Telehandler	1	10
				Loader	1	10
Column Form, Rebar, Pour (Piers 2, 3, 4)	24	116	0	Cranes	1	8
Embankment Grading (Abut 1)	12	4	4	Excavators	1	8
				Rubber-tired dozers	1	8
				Rubber-tired loaders	1	8
				Rollers	1	8
Excavation (Abut 1)	8	130	6	Excavators	1	8
				Rubber-tired loaders	1	8
Ground Improvements (Abut 5)	10	6	26	Cranes	1	10
				Drill rig	1	10
				Generator/powerpack	1	10
				Air compressor	1	10
				Telehandler	1	10
				Loader	1	10
Cap Falsework (Piers 2, 3, 4)	24	0	0	Pile driver	1	8
				Track-mounted crane	1	8
Cap Form, Rebar, Pour (Piers 2, 3, 4)	24	116	0	Track-mounted crane	1	8
Embankment Grading (Abut 5)	12	4	0	Excavators	1	8
				Bulldozer	1	8
				Rubber-tired loaders	1	8
				Roller compactor	1	8
Excavation (Abut 5)	8	130	6	Excavators	1	8
				Rubber-tired loaders	1	8
Form, Rebar, Pour (Abuts 1 and 5, Stem, Walls, and Diaphragms and Deck)	24	116	0	Track-mounted crane	1	8
Erect Precast Girders	24	0	0	Pile driver	1	8
				Track-mounted crane	1	8
Cure Deck, Strip Overhangs	4	56	0	Cranes	1	8
Riprap (Abuts 1 and 5)	8	0	4	Excavators	1	8
				Rubber-tired loaders	1	8
Sidewalk Barrier Install, Deck Grind	4	56	0	Cranes	1	8
Offsite Improvements						
Grubbing and Land Clearing	6	2	6	Crawler tractors	1	8
				Excavators	1	8
Grading and Excavation	30	1	156	Excavators	3	8
				Graders	1	8
				Crawler tractors	1	8
				Rollers	2	8

Table 3.2-5. Pre-Cast Construction Method Scenario Assumptions

Phase	One-Way Trips per Day			Equipment		
				Rubber-tired loaders	1	8
				Scrapers	2	8
				Tractors/loaders/ backhoes	2	8
Drainage, Utilities, and Sub-Grade	26	2	12	Signal boards	0	8
				Tractors/loaders/ backhoes	2	8
				Scrapers	2	8
				Rough terrain forklifts	1	8
				Plate compactors	1	8
				Pumps	1	8
				Air compressors	1	8
				Graders	1	8
				Generator sets	1	8
Paving	18	2	0	Rollers	3	8
				Pavers	1	8
				Paving equipment	1	8
				Signal boards	0	8
				Tractors/loaders/ backhoes	2	8
Architectural Coating	6	2	0	Air compressors	1	6

Source: Gazaway, pers. comm., 2023.

Cast-in-Place Bridge Construction

The project was assumed to require the following construction phases, with likely overlaps provided by project engineers (durations are approximate):

- ESA Fencing, Clearing, Grubbing, and Mobilization: 3 weeks
- CIDH Piles (Pier 2,3): 4 weeks
- Ground Improvements (Abut 1): 3 weeks
- Column Form, Rebar, Pour (Pier 2,3): 4 weeks
- Embankment Grading (Abut 1): 1 week
- Excavation (Abut 1): 1 week
- Ground Improvements (Abut 4): 3 weeks
- Embankment Grading (Abut 4): 1 week
- Excavation (Abut 4): 1 week
- CIDH Piles (Abut 1, 4): 9 weeks
- Form, Rebar, Pour (Abut 1 & 4, Footing, Stem, Walls): 13 weeks
- Erect Falsework: 8 weeks
- Form, Rebar, Pour (Soffit, Stems, Deck): 23 weeks

- Cure Deck, Stress Bridge, Strip Falsework: 7 weeks
- Riprap (Abut 1 & 5): 4 weeks
- Sidewalk Barrier Installation and Deck Grind: 3 weeks

Cast-in-Place Off-Site Improvements

- Grubbing and Land Clearing: 1 week
- Grading and Excavation: 2.5 weeks
- Drainage, Utilities, and Sub-Grade: 2 weeks
- Paving: 1 week
- Architectural Coating: 1 week

Table 3.2-6 provides the construction equipment mix and vehicle trips assumed for estimating project-generated construction emissions associated with each phase of a cast-in-place bridge.

Table 3.2-6. Cast-in-Place Construction Method Scenario Assumptions

Phase	One-Way Trips per Day			Equipment		
	Worker	Vendor	Haul	Type	Quantity	Hrs/day
Bridge Construction						
General Construction	24	0	0	Aerial lift	1	8
				Air compressors	1	8
				Cranes	1	8
				Forklifts	1	8
				Generator sets	4	8
				Welders	1	8
ESA Fencing; Clear and Grub; Mobilization	16	4	8	Excavators	1	8
				Graders	1	8
				Rubber-tired loaders	1	8
				Rubber-tired dozer	1	8
				Scrapers	1	8
				Chipper/Other Construction Equipment	1	8
CIDH Piles (Pier 2, 3)	20	338	0	Bore/drill rig	1	8
				Cranes	1	8
				Rubber-tired loaders	1	8
				Generator sets	3	8
Ground Improvements Abut 1	10	6	26	Cranes	1	10
				Drill rig	1	10
				Generator/powerpack	1	10
				Air compressor	1	10
				Telehandler	1	10
				Rubber-tired loaders	1	10
Column Form, Rebar,	24	116	0	Cranes	1	8

Table 3.2-6. Cast-in-Place Construction Method Scenario Assumptions

Phase	One-Way Trips per Day			Equipment		
Pour (Pier 2, 3)						
Embankment Grading (Abut 1)	12	4	4	Excavators	1	8
				Rubber-tired dozers	1	8
				Rubber-tired loaders	1	8
				Rollers	1	8
Excavation Abut 1	8	130	6	Excavators	1	8
				Rubber-tired loaders	1	8
Ground Improvements Abut 4	10	6	26	Cranes	1	10
				Drill rig	1	10
				Generator/powerpack	1	10
				Air compressor	1	10
				Telehandler/Forklift	1	10
				Rubber-tired loaders	1	10
Embankment Grading (Abut 4)	12	4	0	Excavators	1	8
				Bulldozer	1	8
				Rubber-tired loaders	1	8
				Roller compactor	1	8
Excavation Abut 4	8	130	6	Excavators	1	8
				Rubber-tired loaders	1	8
CIDH Piles (Abut 1, 4 Footing, Stem, Walls)				Bore/Drill Rig	1	8
				Cranes	1	8
				Rubber-tired loaders	1	8
				Generator sets	3	8
Form, Rebar, Pour (Abut 1, 4 Footing, Stem, Walls)	44	116[1]	0	Cranes	1	8
Erect Falsework	40	0	0	Cranes	1	8
Form, Rebar, Pour (Soffit, Stems, Deck)	54	116[1]	0	Cranes	1	8
Cure Deck, Stress Bridge, Strip Falsework	40	56	—	Cranes	1	8
Riprap (Abut 1 and 4)	8	—	4	Excavators	1	8
				Rubber-tired loaders	1	8
Sidewalk Barrier Install, Deck Grind	4	56	—	Cranes	1	8
Offsite Improvements						
Grubbing and Land Clearing	6	2	6	Crawler tractors	1	8
				Excavators	1	8
Grading and Excavation	30	1	156	Excavators	3	8
				Graders	1	8
				Crawler tractors	1	8
				Rollers	2	8

Table 3.2-6. Cast-in-Place Construction Method Scenario Assumptions

Phase	One-Way Trips per Day			Equipment		
				Rubber-tired loaders	1	8
				Scrapers	2	8
				Tractors/loaders/ backhoes	2	8
Drainage, Utilities, and Sub-Grade	26	2	12	Tractors/loaders/ backhoes	2	8
				Scrapers	2	8
				Rough terrain forklifts	1	8
				Plate compactors	1	8
				Pumps	1	8
				Air compressors	1	8
				Graders	1	8
				Generator sets	1	8
Paving	18	2	—	Rollers	3	8
				Pavers	1	8
				Paving equipment	1	8
				Tractors/loaders/ backhoes	2	8
Architectural Coating	6	2	-	Air compressors	1	6

Source: Gazaway, pers. comm., 2024.
Notes:
[1] An additional 200 concrete trucks (400 truck trips) were added to the modeling for the form, rebar, and pour, which would occur over the period of 1 day.

Material Import/Export

Proposed project construction under both alternatives would include approximately 17,500 cubic yards of import and approximately 4,450 cubic yards of material export during the ground improvement, excavation, grubbing/land clearing, and utilities phases. Detailed construction equipment modeling assumptions are provided in Appendix B, Air Quality and Greenhouse Gas Emissions Technical Report.

Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. Construction of project components would be subject to SDAPCD Rule 55 – Fugitive Dust Control. Compliance with Rule 55 would limit fugitive dust (PM_{10} and $PM_{2.5}$) that may be generated during grading and construction activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active sites two times per day, depending on weather conditions.

Internal combustion engines used by construction equipment, vendor trucks (i.e., delivery trucks), haul trucks, and worker vehicles would result in emissions of VOCs, NO_x, CO, PM_{10}, and $PM_{2.5}$. The application of architectural coatings, such as roadway striping and signage, and application of asphalt pavement would also produce VOC emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of SDAPCD Rule 67.0.1 for Architectural Coatings.

Would the project conflict with or obstruct implementation of the applicable air quality plan?

Pre-Cast and Cast-in-Place Construction Methods

SDAPCD and SANDAG are responsible for developing and implementing the clean air plans for attainment and maintenance of the NAAQS and CAAQS in the SDAB, specifically, the SIP and RAQS.[4] The federal O_3 attainment plan, which is part of the SIP, was adopted in 2020. The SIP includes a demonstration that current strategies and tactics will attain acceptable air quality in the SDAB based on the NAAQS. The RAQS was initially adopted in 1991 and is updated every 3 years (most recently in 2022). The RAQS outlines SDAPCD's plans and control measures designed to attain the CAAQS for O_3. The SIP and RAQS rely on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County and the cities in the County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the County as part of the development of their general plans.

As mentioned above, the SIP and RAQS rely on SANDAG growth projections based on population, vehicle trends, and land use plans developed by the cities and by the County as part of development of their general plans. As such, projects that involve development that is consistent with the growth anticipated by local plans would be consistent with the SIP and RAQS. However, if a project involves development that is greater than that anticipated in the local plan and/or SANDAG's growth projections, that project might be in conflict with the SIP and RAQS, and may contribute to a potentially significant cumulative impact on air quality.

The proposed project would span the San Diego River, connecting Fenton Parkway with Camino Del Rio North in the Mission Valley community of the City of San Diego. The proposed project is referenced in the Mission Valley Community Plan (adopted by the City of San Diego in 2019) and is a long-sought infrastructure enhancement in the Mission Valley community that would connect residents and businesses south of the San Diego River to land uses north of the San Diego River off Friars Road, including the SDSU Mission Valley development, which was approved by the Board of Trustees of the California State University in 2020 (City of San Diego 2019). The project would involve construction of a vehicular and pedestrian bridge spanning the San Diego River from north to south.

The project does not include a change in zoning or land use designation, and no housing is proposed. Construction of the project would require workforce travel from the surrounding region but would be temporary and would cease once construction is complete. The proposed project would not directly or indirectly promote population growth or increase VMT in the region. Implementation of the project would not result in development or growth beyond that which was contemplated by SANDAG for their regional growth projections used in the SDAPCD air quality management plans. Therefore, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan, and impacts would be **less than significant**.

[4] For the purpose of this discussion, the relevant federal air quality plan is the O_3 attainment plan (SDAPCD 2020). The RAQS is the applicable plan for purposes of state air quality planning. Both plans reflect growth projections in the SDAB.

Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and SDAPCD develops and implements plans for future attainment of the NAAQS and CAAQS. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether the project's individual emissions would have a cumulatively significant impact on air quality.

In considering cumulative impacts from the proposed project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SDAB is designated as nonattainment for the CAAQS and NAAQS. As discussed previously, the SDAB has been designated as a national nonattainment area for O_3 and a California nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. Construction and operation of the project would result in emissions of criteria air pollutants, which may result in a cumulatively considerable increase in emissions of criteria air pollutants for which the SDAB is designated as nonattainment under the NAAQS or CAAQS. The following discussion evaluates potential short-term construction and long-term operational impacts that would result from implementation of the proposed project.

Construction Emissions

Construction of the proposed project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing) and off-site sources (vendor and haul truck trips and worker vehicle trips). Construction emissions can vary substantially day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions.

Criteria air pollutant emissions associated with construction activities were quantified using CalEEMod. Default values provided by the program were used where detailed proposed project information was not available. A detailed depiction of the construction schedule—including information regarding phasing, equipment used during each phase, haul trucks, vendor trucks, and worker vehicles—is included in Table 3.2-5.

Development of the proposed project would generate air pollutant emissions from entrained dust, off-road equipment, vehicle emissions, asphalt pavement application, and architectural coatings. As described previously, fugitive dust would be limited through compliance with SDAPCD Rule 55, which requires the restriction of visible emissions of fugitive dust beyond the property line (SDAPCD 2009).

Pre-Cast Construction Method Emissions

Table 3.2-7 shows the estimated maximum unmitigated daily construction emissions associated with the conceptual construction phases of the project. Complete details of the emissions calculations are provided in Appendix B.

Table 3.2-7. Pre-Cast Construction Method Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Construction Period	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds Per Day					
Summer 2025*	3.24	33.21	30.65	0.09	3.34	1.57
Winter 2025*	10.67	124.46	101.95	0.27	20.13	8.81
Maximum Daily Emissions**	**10.67**	**124.46**	**101.95**	**0.27**	**20.13**	**8.81**
SDAPCD Threshold	75	250	550	250	100	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix B.
Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SDAPCD= San Diego Air Pollution Control District.
* CalEEMod modeling presented in Appendix B for the Pre-Cast Scenario was prepared using an earlier construction date of 2024, however, work would occur in 2025 or later. The use of an earlier construction year provides a "worst-case scenario" estimate of emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.
** Emissions shown are unmitigated, however, the project would include the use of Tier 4 equipment pursuant to Mitigation Measure AQ-1, which is required to address impacts to sensitive receptors, which would further reduce emissions.

As shown in Table 3.2-7, maximum daily construction emissions would not exceed the SDAPCD significance thresholds for any criteria air pollutant during the pre-cast construction method, and short-term construction air quality impacts would be **less than significant**.

Cast-in-Place Construction Method Emissions

Table 3.2-8 shows the estimated maximum unmitigated daily construction emissions associated with the conceptual construction phases of the cast-in-place option. Complete details of the emissions calculations are provided in Appendix B.

Table 3.2-8. Cast-in-Place Construction Method Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Construction Period	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds Per Day					
Summer 2025	3.67	43.33	36.84	0.16	6.47	2.43
Winter 2025	6.87	74.01	69.56	0.23	14.11	6.88
Winter 2026	5.91	63.80	60.91	0.20	9.92	3.44
Maximum Daily Emissions*	**6.87**	**74.01**	**69.56**	**0.23**	**14.11**	**6.88**
SDAPCD Threshold	75	250	550	250	100	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix B.
Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SDAPCD= San Diego Air Pollution Control District.
* Emissions shown are unmitigated, however, the project would include the use of Tier 4 equipment pursuant to Mitigation Measure AQ-1, which is required to address impacts to sensitive receptors, which would further reduce emissions.

As shown in Table 3.2-8, maximum daily construction emissions would not exceed the SDAPCD significance thresholds for any criteria air pollutant during the cast-in-place construction method, and short-term construction air quality impacts would be **less than significant**.

Operational Emissions

Pre-Cast and Cast-in-Place Construction Methods

Once project construction is complete, the project would provide a two-lane roadway extension of Fenton Parkway south with a bridge over the San Diego River to Camino Del Rio North. The roadway extension would include separated bike lanes and sidewalks, providing a new high-water crossing over the San Diego River. Similar to existing conditions, there could be occasional routine maintenance (e.g., re-striping, re-paving) during operation of the roadway expansion; however, these activities would be minor and result in only a nominal increase of emissions. Additionally, per the transportation study prepared for the proposed project, the project is not expected to increase area VMT because the project provides a more direct route to and from destinations (Appendix I). Because the project would not result in a net increase in transportation-related emissions in the region, which is the source of long-term operational air pollutant emissions for the project, there would be no significant air quality impacts associated with operational air pollutant emissions.

As discussed above, the SDAB has been designated as a national nonattainment area for O_3 and a California nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. The nonattainment status is the result of cumulative emissions from various sources of air pollutants and their precursors within the SDAB, including motor vehicles, off-road equipment, and commercial and industrial facilities. Construction and operation of the project would generate VOC and NO_x emissions (which are precursors to O_3) and emissions of PM_{10} and $PM_{2.5}$. However, as indicated, project-generated construction emissions and operational emissions would not exceed the emission-based significance thresholds for VOC, NO_x, PM_{10}, or $PM_{2.5}$.

Because the project-generated construction and operational emissions of VOC, NOx, PM_{10}, and $PM_{2.5}$ would not exceed the SDAPCD thresholds, the project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants. Therefore, the project's cumulative air quality impact would be **less than significant**.

Health Effects of Criteria Pollutants

Pre-Cast and Cast-in-Place Construction Methods

Project construction and operation would not exceed regional significance thresholds for VOC, NO_x, CO, SO_x, $PM_{10,}$ or $PM_{2.5}$. VOCs and NO_x are precursors to O_3, for which the SDAB is designated as nonattainment with respect to the NAAQS and CAAQS. The health effects associated with O_3 are generally associated with reduced lung function. The contribution of VOC and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the SDAB due to O_3 precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the VOC emissions would occur because exceedances of the O_3 CAAQS/NAAQS tend to occur between April and October when solar radiation is highest. The holistic effect of a single project's emissions of O_3 precursors is speculative due to the lack of quantitative methods to assess this impact. Operation of the project would not exceed the regional significance threshold for NO_x; therefore, implementation of the project would contribute minimally to regional O_3 concentrations and the associated health effects.

Operation of the project would not contribute to exceedances of the NAAQS and CAAQS for NO_2. Health effects that result from NO_2 and NO_x include respiratory irritation, which could be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. However, project construction would be relatively short term, and off-road construction equipment would be operating at various portions of the site and would not be concentrated in one portion of the site at any one time. In addition, existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards. Because project generated NO_x emissions would not exceed the regional significance threshold, the project would not result in potential health effects associated with NO_2 and NO_x.

CO tends to be a localized impact associated with congested intersections. The associated potential for CO hotspots is discussed under the following threshold and are determined to be a less-than-significant impact. Furthermore, the existing CO concentrations in the area are well below the NAAQS and CAAQS standards. Thus, the project's CO emissions would not contribute to significant health effects associated with this pollutant.

Construction and operation of the project would also not exceed regional thresholds for PM_{10} or $PM_{2.5}$ and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter or obstruct the SDAB from coming into attainment for these pollutants. Additionally, the project would implement dust control strategies and be required to comply with SDAPCD Rule 55, Fugitive Dust, which limits the amount of fugitive dust generated during construction (SDAPCD 2009). Due to the minimal contribution of particulate matter during construction and operation, the project is not anticipated to result in health effects associated with PM_{10} or $PM_{2.5}$.

In summary, because implementation of the project would not result in exceedances of the SDAPCD regional significance thresholds during construction and operation, the potential health effects associated with criteria air pollutants would be **less than significant**. Furthermore, there are numerous scientific and technological complexities associated with correlating criteria air pollutant emissions from an individual project to specific health effects or potential additional nonattainment days, and there are currently no modeling tools that could provide reliable and meaningful additional information regarding health effects from criteria air pollutants generated by individual projects within the SDAPCD jurisdiction.

Would the project expose sensitive receptors to substantial pollutant concentrations?

Carbon Monoxide Hotspots

Pre-Cast and Cast-in-Place Construction Methods

Mobile-source impacts occur on two basic scales of motion. Regionally, travel associated with a project could add to regional trip generation and increase the VMT within the local airshed and the SDAB. Locally, traffic associated with a project will be added to the City of San Diego's roadway system. If such traffic occurs during periods of poor atmospheric ventilation, consists of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds, and operates on roadways already crowded with non-project traffic, there is a potential for the formation of microscale CO "hotspots" in the area immediately around points of congested traffic. Because of continued improvement in mobile emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the basin is steadily decreasing.

During construction, the project would generate trips associated with construction worker vehicles and vendor and haul trucks. Title 40 of the California Code of Regulations, Section 93.123(c)(5), Procedures for Determining Localized CO, PM_{10}, and PM_2 Concentrations (hot-spot analysis), states that "CO, PM_{10}, and $PM_{2.5}$ hot-spot analyses are not required to consider construction-related activities, which cause temporary increases in emissions. Each site

which is affected by construction-related activities shall be considered separately, using established 'Guideline' methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site" (40 CFR 93.123). While project construction would involve on-road vehicle trips from trucks and workers during construction, construction activities would last up to approximately 11 months and therefore would not require a project-level construction hotspot analysis.

As discussed above, high CO concentrations would be associated with severely congested intersections operating at an unacceptable level of service (LOS) (LOS E or worse is unacceptable). Projects contributing to adverse traffic impacts may result in the formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a project would result in a significant impact or contribute to an adverse traffic impact (i.e., LOS E or worse) at a signalized intersection that would potentially subject sensitive receptors to CO hotspots. According to the project's transportation study, operation of the project would result in a nominal amount of vehicular traffic and would not result in intersections operating at or below LOS E (Appendix I). Therefore, the project would not result in CO hotspot-related impacts. As such, potential project-generated impacts associated with CO hotspots would be **less than significant**.

Toxic Air Contaminants

Pre-Cast and Cast-in-Place Construction Methods

Construction Health Risks

Project impacts may include emissions of pollutants identified by the state and federal government as TACs or HAPs. The greatest potential for TAC emissions during construction would be DPM emissions from heavy equipment operations and heavy-duty trucks, and the associated health impacts to sensitive receptors. The closest sensitive receptors to the project site are multifamily residences immediately adjacent on the northwest boundary of the site.[5] As such, a construction health risk assessment was performed for the project.

Based on results from the health risk analysis, the maximally exposed individual resident (MEIR) off site would be located at a multifamily residence located northwest of the intersection of Fenton Parkway and River Park Road. Table 3.2-9 summarizes the results of the health risk analysis for proposed project construction, and detailed results are provided in Appendix B.

Table 3.2-9. Construction Activity Health Risk Assessment Results Prior to Mitigation

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Offsite – Pre-Cast Construction Method				
Cancer Risk	Per Million	29.15	10	Potentially Significant
HIC	Not Applicable	0.04	1	Less than Significant
Offsite – Cast-in-Place Construction Method				
Cancer Risk	Per Million	29.21	10	Potentially Significant
HIC	Not Applicable	0.03	1	Less than Significant

[5] While the project site is surrounded by other land uses, such as offices uses, a library, and retail/commercial properties, these are not considered sensitive uses as they are transient in nature, and DPM health risk is related to long-term exposure.

Source: Appendix B.
Notes: HIC = Chronic Hazard Index.

The results of the HRA demonstrate that the TAC exposure from construction diesel exhaust emissions would result in a cancer risk of 29.15 in a million for the pre-cast construction method and 29.21 in a million for the cast-in-place construction method at the MEIR. The pre-cast construction method would have a Chronic Hazard Index of 0.04 and the cast-in-place construction method would have a Chronic Hazard index of 0.03. The chronic hazard index for both construction methods would be below the 1.0 significance threshold; however, both construction methods would exceed the cancer risk threshold of 10 in 1 million and would be **potentially significant** without mitigation.

Pre-Cast and Cast-in-Place Construction Methods

Roadway Health Risks

As noted previously, the project would locate a source of TAC in the form of DPM closer to existing receptors by constructing the new bridge. Like the construction HRA, the closest sensitive receptors to the project site are multifamily residences immediately adjacent on the northwest boundary of the site. A roadway HRA was performed for the project using the methodology discussed in the Air Quality and Greenhouse Gas Emissions Technical Report included as Appendix B of this EIR. Based on results from the operational HRA, the MEIR would be located at a multifamily residence located northwest of the intersection of Fenton Parkway and River Park Road. Table 3.2-10 summarizes the results of the roadway HRA for proposed project, and detailed results are provided in Appendix B.

Table 3.2-10. Summary of Maximum Roadway Cancer and Chronic Health Risks

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Offsite				
Cancer Risk	Per Million	1.02	10	Less than Significant
HIC	Not Applicable	0.0003	1	Less than Significant

Source: Appendix B.
Notes: HIC = Chronic Hazard Index.

The results of the roadway HRA demonstrate that the TAC exposure from roadway vehicle diesel exhaust emissions would result in a cancer risk of 1.02 in a million and a chronic hazard index of 0.0003. The project cancer risk would not exceed the cancer risk threshold of 10 in 1 million nor would the chronic hazard index exceed the 1.0 significance threshold; thus, the residential receptors near the new bridge would have cancer and chronic health risk impacts that are less than the SDAPCD health risk thresholds. The impact would be **less than significant**.

Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Pre-Cast and Cast-in-Place Construction Methods

The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Odors potentially would be generated from vehicles and equipment exhaust emissions during construction of the project. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction of either method would be **less than significant**.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The project would not create any new sources of odor from these types of operations. Therefore, project operations, regardless of the construction method, would result in an odor impact that is **less than significant**.

3.2.5 Cumulative Impacts

Would the project result in a cumulative impact related to air quality?

As previously stated, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and SDAPCD develops and implements plans for future attainment of the NAAQS and CAAQS. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether the project's individual emissions would have a cumulatively significant impact on air quality.

In considering cumulative impacts from the proposed project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SDAB is designated as nonattainment for the CAAQS and NAAQS. As discussed previously, the SDAB has been designated as a national nonattainment area for O_3 and a California nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. Construction and operation of the project would result in emissions of criteria air pollutants, which may result in a cumulatively considerable increase in emissions of criteria air pollutants for which the SDAB is designated as nonattainment under the NAAQS or CAAQS.

As determined above, because the project-generated construction and operational emissions of VOC, NOx, PM_{10}, and $PM_{2.5}$ would not exceed the SDAPCD thresholds, the project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants. Therefore, the project's cumulative air quality impact would be **less than significant**.

3.2.6 Summary of Impacts Prior to Mitigation

Air quality impacts to sensitive receptors were determined to be **potentially significant** and mitigation measures are required. All other air quality impacts were determined to be less than significant and no mitigation measures are required.

3.2.7 Mitigation Measures

MM-AQ-1 Tier 4 Final Construction Equipment. Prior to the commencement of any construction activities, the applicant or its designee shall provide evidence to the San Diego State University (University) that for off-road equipment with engines rated at 25 horsepower or greater, no construction equipment shall be used that is less than Tier 4 Final. An exemption from these requirements may be granted by the University if the applicant documents that equipment with the required tier is not reasonably available and equivalent reductions in PM_{10} exhaust emissions are achieved from other construction equipment. Before an exemption may be considered by the University, the applicant shall be required to demonstrate that three construction fleet owners/operators in the San Diego Region were contacted and that those owners/operators confirmed Tier 4 equipment could not be located within the San Diego region. The University shall review the exemption request and provide a determination within 10 business days from receipt of the request.

3.2.8 Level of Significance After Mitigation

Mitigation Measure (MM) AQ-1 would require that all diesel-fueled off-road construction equipment greater than 25 horsepower be zero-emissions or equipped with CARB Tier 4 Final compliant engines (as set forth in Section 2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 of the Code of Federal Regulations). An exemption from these requirements may be granted, at the University's discretion, if the contractor documents that the required tier is not reasonably available and corresponding reductions in diesel particulate matter are achieved from other construction equipment to remain below the applicable SDAPCD cancer risk threshold. Table 3.2-11 summarizes the results of the HRA for project construction after mitigation.

Table 3.2-11. Construction Activity Health Risk Assessment Results With Mitigation

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Offsite – Pre-Cast Construction Method				
Cancer Risk	Per Million	7.28	10	Less than Significant
HIC	Not Applicable	0.009	1	Less than Significant
Offsite – Cast-in-Place Construction Method				
Cancer Risk	Per Million	8.32	10	Less than Significant
HIC	Not Applicable	0.008	1	Less than Significant

Source: Appendix B.
Notes: HIC = Chronic Hazard Index.

As shown in Table 3.2-11, mitigated project construction emissions would result in a cancer risk of 7.28 in a million at the MEIR) for the pre-cast construction method and 8.32 in a million for the cast-in-place construction method, which are both less than the significance threshold of 10 in 1 million. Mitigated project construction emissions would result in a chronic hazard index of 0.009 for the pre-cast construction method and 0.008 for the cast-in-place construction method, which are below the 1.0 significance threshold. The project construction health impacts would be **less than significant with mitigation**.

Air quality impacts would be **less than significant with mitigation**.

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3.3 Biological Resources

This section describes the existing biological resources conditions of the project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Fenton Parkway Bridge Project (project). A Biological Resources Technical Report was prepared by Dudek in October 2023 and is included herein as Appendix C.

A Notice of Preparation (NOP) was circulated from May 22, 2023, to June 20, 2023. A total of 16 letters were received during this comment period. Comments on the NOP related to biological resources included requests for analysis of potential impacts to special-status species, impacts within the Multi-Habitat Planning Area (MHPA), and impacts to wildlife connectivity. Please see Appendix A, NOP and Scoping Comments, for a complete compilation of comments received on the NOP.

3.3.1 Existing Conditions

The project site is situated south of Fenton Parkway and the Fenton Marketplace and north of Camino Del Rio North and would connect these two roadways. The San Diego River bisects the project site from east to west. Surrounding uses include commercial and residential uses to the north, the San Diego State University (SDSU) Mission Valley development (including Snapdragon Stadium) to the northeast, office and healthcare uses to the south, and open space to the east, including the San Diego River. The bridge would be within the City of San Diego's (City's) MHPA and the City's Stadium Wetland Mitigation Site (no credit area).

The elevation ranges from approximately 35 feet above mean sea level to 300 feet above mean sea level. The project site includes developed areas and native habitat. The project site includes the lower floodplain of the San Diego River, developed areas associated with the SDSU Mission Valley Campus, Camino Del Rio North, and an undeveloped area south of Camino Del Rio North.

According to the Natural Resources Conservation Service (USDA 2023), there are three soil types found within the project site: Riverwash; Tujunga sand, 0% to 5% slopes; and made land.

3.3.1.1 Vegetation Communities

Five vegetation communities/land covers were mapped within the project site. Native vegetation communities within the project site include Baccharis-dominated Diegan coastal sage scrub, Diegan coastal sage scrub, and southern cottonwood–willow riparian forest. Two non-native land cover types—developed and unvegetated channel—occur within the project site. The acreages for these vegetation communities and land cover types are presented in Table 3.3-1, and their spatial distributions are presented on Figures 3.3-1 – View 1 through 3.3-1 – View 4, Biological Resources.

Table 3.3-1. Vegetation Communities/Land Cover Types on the Project Site

Habitat Types/Vegetation Communities	Oberbauer Code	City of San Diego Habitat Tier Code	Project Site (acres)	% of Project Site
Non-Native Vegetation Community/Land Cover Types				
Developed (DEV)	12000	Tier IV	9.58	74%
Non-Vegetated Channel or Floodway (NVC)	64200	City Wetland (Natural Flood Channel)	0.04	<1%
Subtotal	*N/A*	*N/A*	*9.62*	*74%*
Native Vegetation Communities				
Baccharis-Dominated Diegan Coastal Sage Scrub (BD-CSS)	32350	Tier II	0.03	<1%
Diegan Coastal Sage Scrub (CSS)	32500	Tier II	2.05	16%
Southern Cottonwood–Willow Riparian Forest (SCWRF)	61330	City Wetland (Riparian Habitat)	1.18	9%
Subtotal	*N/A*	*N/A*	*3.27*	*26%*
Total*	**N/A**	**N/A**	**12.89**	**100%**

Note:
* Acreages may not sum due to rounding.

Baccharis-Dominated Diegan Coastal Sage Scrub (32530)

Diegan coastal sage scrub is the most widespread coastal sage scrub in coastal Southern California, extending from Los Angeles into Baja California (Oberbauer et al. 2008). The community mostly consists of drought-deciduous species such as California sagebrush (i.e., coastal sagebrush; *Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), white sage (*Salvia apiana*), laurel sumac (*Malosma laurina*), and black sage (*Salvia mellifera*). Baccharis-dominated Diegan coastal sage scrub is similar to Diegan coastal sage scrub except that it is dominated by Baccharis species including desertbroom (*Baccharis sarothroides*) and/or coyote brush (*Baccharis pilularis*) (Oberbauer et al. 2008). This community typically occurs on disturbed sites or those with nutrient-poor soils and is often found within other forms of Diegan coastal sage scrub and on upper terraces of river valleys. This community is distributed along coastal and foothill areas in San Diego County. According to the San Diego Biology Guidelines (SDBG), Diegan coastal sage scrub is considered a Tier II vegetation community (City of San Diego 2018).

Diegan coastal sage scrub and all its variants are generally recognized as sensitive plant communities by local, state, and federal resource agencies. They support a diversity of sensitive plants and animals, and it is estimated that their acreage has been reduced by 75% to 80% of their historical coverage throughout Southern California.

Baccharis-dominated Diegan coastal sage scrub is located within the northwestern portion of the project site and totals 0.03 acres and is dominated by coyote brush and desertbroom, with Menzies's golden bush (*Isocoma menziesii*) and California brittle bush (*Encelia californica*) (Figures 3.3-1 – View 1 through 3.3-1 – View 4).

Diegan Coastal Sage Scrub (32500)

According to Holland (1986), Diegan coastal sage scrub is composed of a variety of soft, low shrubs, characteristically dominated by drought-deciduous species such as California sagebrush, California buckwheat, and sages (*Salvia* spp.), with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*), and laurel sumac. It typically develops on xeric (dry) slopes.

Diegan coastal sage scrub and all its variants are generally recognized as sensitive plant communities by local, state, and federal resource agencies. They support a diversity of sensitive plants and animals, and it is estimated that their acreage has been reduced by 75% to 80% of their historical coverage throughout Southern California. According to the SDBG, Diegan coastal sage scrub is considered a Tier II vegetation community (City of San Diego 2018).

Diegan coastal sage scrub vegetation occurs primarily to the east of Mission City Parkway in a potential staging area and in a small strip just north of the San Diego River (Figures 3.3-1 – View 1 through 3.3-1 – View 4). The Diegan coastal sage scrub totals approximately 2.05 acres and is dominated by California sagebrush, Menzies's golden bush, and black sage, with annual yellow sweetclover (*Melilotus indicus*), compact brome (*Bromus madritensis*), and shortpod mustard (*Hirschfeldia incana*); crowndaisy (*Glebionis coronaria*) grows along the edges.

Southern Cottonwood–Willow Riparian Forest (61330)

Southern cottonwood–willow riparian forest generally consists of tall, open, broadleaved forests that are winter-deciduous. This community is typically dominated by cottonwood (*Populus fremontii*, *P. trichocarpa*), with several tree willows (*Salix* sp.) and shrubby willows dominating the understory. Dominant species require moist, bare mineral soils for germination and establishment and are located on subirrigated or frequently overflowed lands along rivers and streams (Oberbauer et al. 2008). According to the SDBG, southern cottonwood–willow riparian forest is considered a City wetland (riparian forest) habitat (City of San Diego 2018).

There are 1.18 acres of southern cottonwood–willow riparian forest within the project site, located in the northwestern portion of the project site and associated with a storm drain outlet channel that discharges into the San Diego River and along the San Diego River channel (Figures 3.3-1 – View 1 through 3.3-1 – View 4). Dominant species in this area are Goodding's willow (*Salix gooddingii*), Fremont cottonwood (*Populus fremontii*), and black elderberry (*Sambucus nigra*), with a sparse understory.

Urban/Developed (12000)

Urban/developed refers to areas that have been constructed upon or disturbed so severely that native vegetation is no longer supported. Developed land includes areas with permanent or semi-permanent structures, pavement or hardscape, landscaped areas, and areas with a large amount of debris or other materials (Oberbauer et al. 2008). According to the SDBG, urban/developed land is considered a Tier IV vegetation community (City of San Diego 2018).

Within the project site, developed land dominates the overall land cover, totaling 9.58 acres (74% of the project site), and includes paved roads and construction areas associated with the Mission Valley River Park (Figures 3.3-1 – View 1 through 3.3-1 – View 4).

Non-Vegetated Channel or Floodway (64200)

According to Oberbauer et al. (2008), non-vegetated channel is the sandy, gravelly, or rocky fringe of waterways or flood channels that is unvegetated on a relatively permanent basis. Vegetation may be present but is usually less than 10% total cover and grows on the outer edge of the channel. According to the SDBG, non-vegetated channel is considered a City wetland (natural flood channel) habitat (City of San Diego 2018).

Within the project site, there is 0.04 acres of non-vegetated channel, which is a portion of the San Diego River (Figures 3.3-1 – View 1 through 3.3-1 – View 4).

3.3.1.2 Flora

A total of 101 species of native or naturalized plants, 45 native (45%) and 56 non-native (55%), was recorded on the site (see Appendix C).

3.3.1.3 Fauna

The project site supports habitat for both common upland and riparian species and some special-status species. Riparian vegetation within the project site provides foraging and nesting habitat for migratory and resident bird species and other wildlife species. The project site is within the Stadium Wetland Mitigation Site, part of the City of San Diego's Multiple Species Conservation Program (MSCP).

A total of 74 wildlife species have been recorded during the 2022–2023 focused surveys (Appendix C).

3.3.1.4 Sensitive Plant Species

Endangered, rare, or threatened plant species, as defined in the California Environmental Quality Act (CEQA) Guidelines Section 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status plant species" herein and include (1) endangered or threatened plant species recognized in the context of the California Endangered Species Act (CESA) and the federal Endangered Species Act (FESA) (CNDDB 2023a) and (2) plant species with a California Rare Plant Rank (CRPR) 1 through 3 (CNPS 2023). This analysis also includes CRPR 4 plant species.

Special-status plant surveys were conducted within the project site to determine the presence or absence of plant species that are considered endangered, rare, or threatened under CEQA Guidelines Section 15380 (14 CCR 15000 et seq.). A list of potentially occurring plants was generated as part of the literature review. Each species' potential to occur on site was evaluated based on the elevation, habitat, and soils present on site and Dudek's knowledge of biological resources in the area and regional distribution of each species. A number of potentially occurring plant species are conspicuous (e.g., large, woody shrubs) and readily observed if present within an open and largely disturbed site. Special-status plant species observed within the project site are presented in Appendix C.

Rainfall levels prior to the May 2022 survey were drier than normal, while rainfall prior to the May 2023 and July 2023 surveys was normal (USACE 2023a). Further, the drought index at the time of the May 2023 survey was severe wetness due to the above-average rainfall in the winter of 2022/2023. Surveys for special-status plants demonstrate the species' presence or absence on site. San Diego County viguiera (*Viguiera laciniata*; CRPR 4.3) and San Diego marsh-elder (*Iva hayesiana*; CRPR 2B.2) were observed within the San Diego River portion of the project site.

All of the target species typically bloom in May or July, and the surveys conducted in May 2022 and May and July 2023 coincide with the bloom periods for annual species; therefore, the target species would have been detected if they occurred on site. No additional rare plants have high or moderate potential to occur that would not have been identified during the spring surveys.

Special-status plant species known to occur in the surrounding region that are not expected to occur on site are presented in Appendix C.

Critical Habitat

There is no U.S. Fish and Wildlife Service (USFWS) designated critical habitat mapped for plant species within the project site. However, there is USFWS-designated critical habitat for one species located approximately 2.5 miles north of the project site: spreading navarretia (*Navarretia fossalis*; federally threatened, CRPR 1B.1) (USFWS 2023).

3.3.1.5 Sensitive Wildlife Species

Endangered, rare, or threatened wildlife species, as defined in CEQA Guidelines Section 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status wildlife species" and, as used herein, include (1) endangered or threatened wildlife species recognized in the context of CESA and FESA (CNDDB 2023b); (2) California Species of Special Concern (SSC) and Watch List (WL) species, as designated by the California Department of Fish and Wildlife (CDFW) (CNDDB 2023c); (3) mammals and birds that are fully protected species, as described in the California Fish and Game Code, Sections 4700 and 3511; and (4) Birds of Conservation Concern, as designated by USFWS (USFWS 2008).

Special-status wildlife species that were observed on site or that have a high or moderate potential to occur are presented in Appendix C, as are special-status wildlife species known to occur in the surrounding region but that were absent or have low potential to occur on site. For each species listed, Dudek determined whether the species had the potential to occur on site based on information gathered during the literature review and site visits, including the location of the project site, vegetation communities or land covers present, current site conditions, and past and present land use.

Critical Habitat

There is no USFWS-designated critical habitat for wildlife species mapped within the project site. However, there is USFWS-designated critical habitat for two species located within 5 miles of the project site: San Diego fairy shrimp (*Branchinecta sandiegonensis*; federally endangered [FE]) and least Bell's vireo (*Vireo bellii pusillus*; FE, state endangered [SE]) (USFWS 2023).

Species Observed or with Potential to Occur On Site

Special-Status Amphibians and Reptiles

There is potential for Southern California legless lizard (*Anniella stebbinsi*; SSC), orange-throated whiptail (*Aspidoscelis hyperythra*; WL), Coronado skink (*Plestiodon skiltonianus interparietalis*; WL), two-striped gartersnake (*Thamnophis hammondii*; SCC, SCE), southwestern pond turtle (*Actinemys pallida [Emys marmorata]*;

federally proposed as threatened, SSC), and western spadefoot (*Spea hammondii*; SSC) to occur within the riparian habitat associated with the San Diego River and associated riparian habitat.

Special-Status Birds

In 2017 and 2022, Dudek conducted focused surveys for least Bell's vireo and southwestern willow flycatcher (*Empidonax traillii extimus*) for the Stadium Wetland Mitigation Project, overlapping the project site within the San Diego River. In 2019, Dudek conducted focused surveys for least Bell's vireo and southwestern willow flycatcher as part of the SDSU Mission Valley Campus Master Plan Project, overlapping the northern portion of the San Diego River and the unnamed channel to the north (Dudek 2019a). In 2022, focused surveys for southwestern willow flycatcher were completed for the project site.

Least Bell's vireo has been detected within and adjacent to the project site during the 2017, 2019, and 2022 surveys. Figures 3.3-1 – View 1 through 3.3-1 – View 4 include these observations.

Focused protocol surveys for southwestern willow flycatcher (FE, SE) in 2022 were negative. Surveys conducted in the San Diego River as part of the SDSU Mission Valley Campus Master Plan Project and the Stadium Wetland Mitigation Project were also negative for all willow flycatcher subspecies (Dudek 2017, 2019a). There is one record of southwestern willow flycatcher in the San Diego River downstream of El Capitan Reservoir (approximately 20 miles from the project site) from June 22, 2009; one record in Chocolate Canyon just south of El Capitan Reservoir on July 8, 2010; and two pairs nesting at the north end of El Capitan Reservoir in 2001 (USFWS 2023; CDFW 2023). There are no other records of the southwestern willow flycatcher in the San Diego River (CDFW 2023; USFWS 2023; Cornell Lab of Ornithology 2019; Unitt 2004). There are willow flycatcher (*Empidonax traillii*) in the San Diego River. However, none of the records is during the "non-migrant" period (i.e., about June 15 to July 20); willow flycatchers detected only outside of this period are likely migrants (Sogge et al. 2010). Given the lack of possible breeding individuals (i.e., southwestern willow flycatchers) recorded since 2009 and the complete lack of willow flycatchers detected during the 2022 focused protocol surveys, it is unlikely that southwestern willow flycatcher occurs within the project site. However, there is suitable habitat in the San Diego River for this species, and thus it has the potential to occur on site in the future.

Cooper's hawk (*Accipiter cooperii*; WL), yellow-breasted chat (*Icteria virens*; SSC), yellow warbler (*Setophaga petechia*; Bird of Conservation Concern, SSC), and song sparrow (*Melospiza melodia*; SSC) were detected within the project site (Figures 3.3-1 – View 1 through 3.3-1 – View 4).

Surveys for coastal California gnatcatcher (*Polioptila californica californica*; federally threatened; SSC) were conducted in 2019 and 2023. Focused surveys within the coastal sage scrub in the northern portion of the site were completed as part of the SDSU Mission Valley Campus Master Plan Project in 2019 (Dudek 2019a, 2019b). In 2023, protocol surveys were conducted in the southern portion of the site where a staging area is proposed. No coastal California gnatcatcher have been observed within the project site. A pair of coastal California gnatcatcher with fledglings was observed approximately 350 feet east of the proposed staging area in the southern portion of the project site during the 2023 surveys. There is suitable coastal sage scrub within the southern portion of the site near this observation that could be used by this species in the future. No coastal California gnatcatchers were observed in the coastal sage scrub communities north of the San Diego River during the 2019 surveys.

Other avian species with a moderate potential to occur include tricolored blackbird (*Agelaius tricolor*; Bird of Conservation Concern, SSC, State Threatened), which has the potential to nest within riparian habitat of the San Diego River, although it has not been observed in the vicinity of the project site during statewide monitoring

surveys or incidentally detected during on-site surveys. Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*; federally threatened, SE), white-tailed kite (*Elanus leucurus*; FP), and least bittern (*Ixobrychus exilis*; SSC) also have a moderate potential to nest in the riparian woodlands of the San Diego River, although there are no recent occurrences in the area.

Special-Status Mammals

There is potential for Mexican long-tongued bat (*Choeronycteris mexicana*; SSC), western yellow bat (*Dasypterus xanthinus*; SCC), and western red bat (*Lasiurus blossevillii*; SSC) to forage and roost in the riparian habitat associated with the San Diego River. No special-status mammals have been observed on site.

Special-Status Invertebrates

Crotch's bumble bee (*Bombus crotchii*) has potential to occur within the coastal sage scrub communities on site where floral resources are present. There are several records of Crotch's bumble bee within 5 miles of the site, including one from 2019 located approximately 4 miles west of the site along the northern side of the San Diego River (CDFW 2023).

3.3.1.6 Wetlands/Jurisdictional Resources

The project site was surveyed to determine the presence and extent of jurisdictional aquatic features, including a drainage channel and the San Diego River (Table 3.3-2).

Table 3.3-2. Jurisdictional Aquatic Resources within the Project Site

Jurisdictional Aquatic Resource	Project Site (acres)
USACE/RWQCB/CDFW/City of San Diego Jurisdictional	
Non-wetland Waters/City Wetland	0.08
Wetland/City Wetland	0.82
Subtotal	*0.90*
CDFW/City of San Diego Jurisdictional	
Riparian Area/City Wetland	0.33
Total*	**1.23**

Notes: USACE = U.S. Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife.
* Acreages may not sum due to rounding.

There is one National Hydrographic Database blue-line stream channel within the project site, the San Diego River, which is located in the center of the project site. The San Diego River is a traditional navigable water (USACE 2023b) and is regulated by the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW. Wetland habitat borders the river, with hydrophytic vegetation, hydrology, and hydric soils. Surrounding the wetland is riparian forest habitat regulated by CDFW. The wetland determination data forms are included in Appendix C. Vegetation present along the river was predominantly willow but included mulefat (*Baccharis salicifolia*), mugwort (*Artemisia douglasii*), and blackberry (*Rubus californica*). The portion of the river observed on site had a defined bed and bank, evidence of an OHWM, and a channel bed 22 feet wide and approximately 4 feet deep at OHWM.

There is another feature located to the north of the San Diego River, which conveys runoff from the surrounding developments into a defined channel, with evidence of an OHWM and a channel bed approximately 5 feet wide. It then is directed into a culvert, where it flows beneath the stadium parking lot and outlets into the San Diego River. This feature typically conveys flow year-round and therefore is considered a relatively permanent water. This feature is regulated by USACE, RWQCB, and CDFW, and the surrounding riparian vegetation (southern cottonwood–willow riparian forest) is regulated by CDFW.

The City regulates Environmentally Sensitive Lands under the San Diego Municipal Code Chapter 143.0110 and the SDBG (City of San Diego 2018). Section 114 of the San Diego Municipal Code describes specific development regulations pertaining to sensitive biological resources, including wetlands. The City's definition of wetlands is broader than the definition applied by USACE. The City regulates wetlands as defined in the SDBG (City of San Diego 2018). Under the City's definition, wetlands can include vegetation communities such as freshwater marsh, riparian forest, riparian scrub, or vernal pools. They may also include areas that have hydric soil or wetland hydrology, but where human activities have resulted in a lack of hydrophytic vegetation (e.g., channelized streambeds) or recurring natural events. However, according to the SDBG (City of San Diego 2018):

> Seasonal drainage patterns that are sufficient enough to etch the landscape (i.e., ephemeral/ intermittent drainages) may not be sufficient enough to support wetland dependent vegetation. These types of drainages would not satisfy the City's wetland definition unless wetland dependent vegetation is either present in the drainage or lacking due to past human activities. Seasonal drainage patterns may constitute "waters of the United States," which are regulated by the Army Corps of Engineers and/or the California Department of Fish and Game.

Collectively, areas under the jurisdiction of one or all of the resource agencies (USACE, RWQCB, and CDFW) and/or the City are termed "jurisdictional resources." All of the jurisdictional resources within the project site are considered wetlands under the City's jurisdiction.

Permanent and temporary impacts are planned along the San Diego River and along the drainage in southern cottonwood–willow riparian forest, of which a portion is considered wetland waters of the United States; the area along the slope is riparian vegetation regulated by CDFW only.

3.3.1.7 Habitat Connectivity and Wildlife Corridors

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that function as stepping-stones for wildlife dispersal. Natural features such as canyon drainages, ridgelines, or areas with vegetation cover provide corridors for wildlife travel. Wildlife corridors are important because they provide access to mates, food, and water; allow the dispersal of wildlife from high-density areas; and facilitate the exchange of genetic traits between populations (Beier and Loe 1992). Wildlife corridors are considered sensitive by resource and conservation agencies.

Canyon lands in San Diego are disappearing and are largely the only habitat corridors that remain within urbanized areas of San Diego. There are no canyon lands within or adjacent to the project site. The San Diego River is the largest open space area within the vicinity of the project site; other open space and wildlife habitat occurs in Murphy Canyon, northeast of the project site; Marine Corps Air Station Miramar, located 5.2 miles north of the project site; and Mission Trails Regional Park, located approximately 5.6 miles northeast of the project site.

None of these areas are directly connected to the San Diego River and only dense urban developments and highways connect them. The San Diego River continues west from the project site in a narrow, development-constrained alignment for approximately 4.8 miles, where it crosses Interstate (I) 5 and turns into estuary and tidally influenced open water for another 2.7 miles before terminating at the Pacific Ocean. Along this 7-mile route to the west, there are approximately 25 bridges—mostly high-volume vehicular, but also rail, trolley, and a few pedestrian structures. Upstream, the river is similarly constrained, with a northward turn approximately 1.3 miles to the east and the first widening approximately 2.3 miles upstream. From that point, there are a few finger canyons that radiate out between urban developments. There are approximately five high-volume vehicle bridges within this stretch. The project site vicinity includes existing urban development to the west and I-805 (approximately 2,500 feet); existing urban development and I-15 (approximately 4,000 feet) to the east; I-8 approximately 700 feet to the south; and steep hillsides and residential development to the north.

While several structural design attributes can influence wildlife use (DOT 2011), the openness of underpasses has been proposed to be one potentially influential determinant (Gordon and Anderson 2003; Clevenger and Barrueto 2014). Openness influences the amount of light that penetrates the interior and the corresponding view of the opposite side of a structure perceived by wildlife. It is related to the cross-sectional area of the opening (and thus underpass size) and is greatly influenced by distance (length) through the structure tied to highway width (Clevenger and Huijser 2011). Although unknown for other wildlife groups, openness seems particularly important to certain ungulate species (e.g., deer) in being able to overcome their hesitancy to pass through unnatural, confined spaces that are perceived as a predation risk. Reed et al. (1975) first employed the concept of openness to evaluate deer use of underpasses using an openness ratio, or index (length × width/length [in meters]). Gordon and Anderson (2003) conducted rigorous experimental evaluation of the influence of underpass openness on mule deer use. They found that use was influenced more by underpass width than height (given constant length) and recommended a minimum index of 0.8 for deer and other small ungulates.

The proposed project's bridge structure is between 10 and 20 feet (4.6 meters averaged) above the river bottom, approximately 58 feet (17.7 meters) wide, and approximately 90 feet (27.4 meters) long. This translates into an openness ratio of roughly 3:1, which exceeds the minimum index for deer (the largest wildlife species that would occur in the river).

The San Diego River serves as a wildlife movement corridor and migratory habitat for migratory birds and year-round birds, as well as foraging habitat and movement for avian and terrestrial species both upstream and downstream. Other urban-adapted mammals, such as coyotes (*Canis latrans*), bobcats (*Lynx rufus*), opossums (*Didelphidae*), raccoons (*Procyon lotor*), and rabbits (*Oryctolagus cuniculus*) could use the San Diego River for movement through the area. It is highly unlikely that larger species like mountain lions and mule deer are able to access or persist in this stretch of the San Diego River. Because of surrounding urban development that limits or prevents wildlife movement in the vicinity of the San Diego River, the San Diego River is likely to be highly used and important as a wildlife corridor for local common ground-based species, though it does not lead to large blocks of habitat to the west and more likely serves as a linear stretch of live-in habitat. For common and special-status avian species, it likely serves as live-in habitat and a local wildlife corridor, perhaps serving at a regional scale as well.

3.3.2 Relevant Plans, Policies, and Ordinances

Federal

Federal Endangered Species Act

FESA of 1973 (16 USC 1531 et seq.), as amended, is administered by USFWS, National Oceanic and Atmospheric Administration, and National Marine Fisheries Service. This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend and provide programs for the conservation of those species, thus preventing extinction of plants and wildlife. Under provisions of Section 9(a)(1)(B) of FESA, it is unlawful to "take" any listed species. "Take" is defined in Section 3(19) of FESA as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

FESA allows for the issuance of incidental take permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans (HCPs) on private property without any other federal agency involvement. Upon development of an HCP, USFWS can issue incidental take permits for listed species.

FESA provides for designation of critical habitat, defined in Section 3(5)(A) as specific areas within the geographical range occupied by a species where physical or biological features "essential to the conservation of the species" are found and "which may require special management considerations or protection." Critical habitat may also include areas outside the current geographical area occupied by the species that are nonetheless "essential for the conservation of the species."

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so (16 USC 703 et seq.). The MTBA was updated in 2004 with the Migratory Bird Treaty Reform Act of 2004, which amended the MTBA to apply only to migratory bird species that are "native to the United States or U.S. territories, and that a native migratory bird species is one that is present as a result of natural biological or ecological processes." A list of non-native, human-introduced species that are not covered by the MBTA was published in 2020. On January 7, 2021, USFWS published a final rule, to be effective December 3, 2021, defining the scope of the MBTA to prohibit incidental take and applying enforcement discretion, consistent with judicial precedent and longstanding agency practice (USFWS 2021). Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The Executive Order requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

Clean Water Act

The Clean Water Act (CWA) is the major federal legislation governing water quality, providing guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 of the CWA requires an applicant for a federal license or permit that may result in a discharge of pollutants into

waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the CWA. The State Water Resources Control Board and RWQCBs administer the 401 certification program in California. Section 402 of the CWA establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. Section 404 establishes a permit program administered by USACE that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. USACE implementing regulations are found in 33 Code of Federal Regulations (CFR) Parts 320 to 332. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed by the U.S. Environmental Protection Agency (EPA) in conjunction with USACE (40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic ecosystem only if there is no practicable alternative that would have less-adverse impacts.

Wetlands and Other Waters of the United States

The definition of waters of the United States establishes the geographic scope for authority under Section 404 of the CWA; however, the CWA does not specifically define waters of the United States, leaving the definition open to statutory interpretation and agency rulemaking. The definition of what constitutes "waters of the United States" (provided in 33 CFR Section 328.3[a]) has changed multiple times over the past few decades, starting with the *United States v. Riverside Bayview Homes Inc*. court ruling in 1985. Subsequent court proceedings, rule makings, and congressional acts in 2001 (*Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers*), 2006 (*Rapanos v. United States*), 2015 (Clean Water Rule), 2018 (suspension of the Clean Water Rule), 2019 (formal repeal of the Clean Water Rule), 2020 (Navigable Waters Protection Rule), and 2021 (*Pasqua Tribe et al v. United States Environmental Protection Agency* resulting in remand and vacatur of the Navigable Waters Protection Rule and a return to "the pre-2015 regulatory regime") have attempted to provide greater clarity to the term and its regulatory implementation. On December 30, 2022, the agencies announced the final Revised Definition of "Waters of the United States" rule (Rule) (88 CFR 3004–3144). The Rule was published in the Federal Register on January 18, 2023, and became effective on March 20, 2023, restoring federal jurisdiction over waters that were protected prior to 2015 under the CWA for traditional navigable waters, the territorial seas, interstate waters, and upstream water resources that significantly affect those waters. The Rule represents a re-expansion of federal jurisdiction over certain water bodies and wetlands previously exempt pursuant to the 2020 Navigable Waters Protection Rule. The Rule also considers various subsequent court decisions, including two notable Supreme Court decisions.

There are two key changes that the Rule incorporates. Firstly, the Rule reinstates the "Significant Nexus" test. The Significant Nexus test refers to waters that either alone, or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, or the territorial seas (86 FR 69372-69450). The Significant Nexus test attempts to establish a scientific connection between smaller water bodies, such as ephemeral or intermittent tributaries, and larger, more traditional navigable waters such as rivers. Significant Nexus evaluations take into consideration hydrologic and ecologic factors including, but not limited to, volume, duration, and frequency of surface water flow in the resource and its proximity to a traditional navigable water, and the functions performed by the resource on adjacent wetlands. Second, the Rule adopts the "Relatively Permanent Standard" test. To meet the Relatively Permanent Standard, water bodies must be relatively permanent, standing, or continuously flowing and have a continuous surface connection to such waters.

On May 25, 2023, the Supreme Court issued its long-anticipated decision in *Sackett v. EPA*, in which it rejected the EPA's claim that "waters of the United States," as defined in the CWA, includes wetlands with an ecologically significant nexus to traditional navigable waters. The Supreme Court held that only those wetlands with a

continuous surface water connection to traditional navigable waterways would be afforded federal protection under the CWA. Specifically, to assert jurisdiction over an adjacent wetland under the CWA, a party must establish that (1) the adjacent body of water constitutes waters of the United States (i.e., a relatively permanent body of water connected to traditional interstate navigable waters) and (2) the wetland has a continuous surface connection with that water, making it difficult to determine where the water ends and the wetland begins. On August 29, 2023, EPA and USACE announced the final rule amending the 2023 definition of "waters of the United States," conforming with the *Sackett v. EPA* decision. Some of the key changes include removing the significant nexus test from consideration when identifying tributaries and other waters as federally protected and revising the adjacency test when identifying federally jurisdictional wetlands. Under EPA's new "waters of the United States" definition, a water of the United States is a relatively permanent, standing, or continuously flowing body of water that has an apparent surface connection to a "traditionally navigable water" to fall within federal purview. The new rule applies to wetlands and streams throughout the United States. Although the *Sackett* opinion did not specifically reference streams, EPA's new rule extends the "continuous surface connection" standard to streams, thereby removing non-permanent, ephemeral streams that do not meet these standards from federal jurisdiction.

The term "wetlands" (a subset of waters of the United States) is defined in 33 CFR, Section 328.3(c)(16), as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In the absence of wetlands, the limits of USACE jurisdiction in non-tidal waters, such as intermittent streams, extend to the OHWM, which is defined in 33 CFR 328.3(c)(7) as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."

State

California Endangered Species Act

CDFW administers CESA (California Fish and Game Code, Section 2050 et seq.), which prohibits the "take" of plant and animal species designated by the Fish and Game Commission as endangered or threatened in the State of California. Under CESA Section 86, take is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA Section 2053 stipulates that state agencies may not approve projects that will "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

CESA Section 2080 prohibits the taking of threatened, endangered, or candidate species by stating:

> No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided in this chapter, the Native Plant Protection Act (Fish and Game Code, Sections 1900–1913), or the California Desert Native Plants Act (Food and Agricultural Code, Section 80001).

CESA Sections 2080.1 through 2085 provide exceptions to the take prohibition.

California Fish and Game Code

According to Sections 3511 and 4700 of the California Fish and Game Code, which regulate certain birds and mammals, respectively, a "fully protected" species may not be taken or possessed without a permit from the Fish and Game Commission and "incidental takes" of these species are not authorized.

According to Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. Finally, Section 3513 states that is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

For the purposes of these state regulations, CDFW currently defines an active nest as one that is under construction or in use and includes existing nests that are being modified. For example, if a hawk is adding to or maintaining an existing stick nest in a transmission tower, then it would be considered to be active and covered under these California Fish and Game Code sections.

Pursuant to Section 1602 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. A Streambed Alteration Agreement is required for impacts to jurisdictional features in accordance with Section 1602 of the California Fish and Game Code.

Porter–Cologne Water Quality Control Act

The intent of the Porter–Cologne Water Quality Control Act is to protect water quality and the beneficial uses of water, and it applies to both surface water and groundwater. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the RWQCBs develop basin plans that identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under the Porter–Cologne Water Quality Control Act include waters that are not regulated by USACE. Developments with impact to jurisdictional waters must demonstrate compliance with the goals of the act by developing stormwater pollution prevention plans, standard urban stormwater mitigation plans, and other measures to obtain a CWA Section 401 certification or waste discharge requirements.

California Environmental Quality Act

CEQA requires identification of a project's potentially significant impacts on biological resources and feasible mitigation measures and alternatives that could avoid or reduce significant impacts. CEQA Guidelines Section 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors" (14 CCR 15000 et seq.). A rare animal or plant is defined in CEQA Guidelines Section 15380(b)(2) as a species that, although not presently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that

term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guidelines Section 15380(c). CEQA also requires identification of a project's potentially significant impacts on riparian habitats (such as wetlands, bays, estuaries, and marshes) and other sensitive natural communities, including habitats occupied by endangered, rare, and threatened species.

Regional

Natural Community Conservation Plan

Section 2835 of the California Fish and Game Code allows CDFW to authorize incidental take in a natural community conservation plan (NCCP). Take may be authorized for identified species whose conservation and management is provided for in the NCCP, whether or not the species is listed as threatened or endangered under FESA or CESA, provided that the NCCP complies with the conditions established in Section 2081 of the California Fish and Game Code. The NCCP provides the framework for the San Diego MSCP Plans (see the following discussion).

Multiple Species Conservation Program

The MSCP is a comprehensive regional long-term habitat conservation program designed to provide permit issuance authority for take of covered species to the local regulatory agencies. The MSCP addresses habitat and species conservation within approximately 900 square miles in the southwestern portion of San Diego County (County of San Diego 1998). It serves as an approved HCP pursuant to FESA and an approved NCCP in accordance with the state Natural Communities Conservation Planning Act (County of San Diego 1998).

The City of San Diego MSCP Subarea Plan (Subarea Plan) establishes a preserve system designed to conserve large blocks of interconnected habitat having high biological value, which are delineated in the MHPA. The City's MHPA is an area within which a "hard line" preserve will be established in cooperation with the wildlife agencies, property owners, developers, and environmental groups. The MHPA identifies biological core resource areas and corridors targeted for conservation, in which only limited development may occur (City of San Diego 1997).

The MSCP identifies 85 plants and animals to be "covered" under the plan (Covered Species). Many of these Covered Species are subject to one or more protective designations under state and/or federal law, and some are endemic to San Diego. The MSCP seeks to provide adequate habitat in the preserve to maintain ecosystem functions and persistence of extant populations of the 85 Covered Species, while also allowing participating landowners' take of Covered Species on lands located outside of the preserve. The purpose of the MSCP is to address species conservation on a regional level and thereby avoid project-by-project biological mitigation, which tends to fragment habitat.

Signatory agencies/districts administer their portions of the MSCP through subarea plans and implementing agreements. Within the City, the MSCP is implemented through the City's Subarea Plan and Implementing Agreements (City of San Diego 1997), as well as referenced companion documents, including the Environmentally Sensitive Lands Regulations (ESL Regulations) and SDBG of the Land Development Manual.

SDSU is not signatory to the MSCP and is therefore not a "Permittee" under this HCP. However, pursuant to a memorandum of understanding between SDSU and the City, project activities will require discretionary approval from the City and, therefore, bridge design and construction will be done in a manner consistent with the MSCP,

including the City's ESL Regulations and SDBG, which provide a compliance and implementation mechanism for the Subarea Plan and its Implementing Agreements (City Land Development Code [LDC] Section 143.0103). Because SDSU is not a Permittee of this HCP, and because SDSU does not need to obtain any entitlements that would constitute a discretionary action by the City, the restrictions typically placed on land within the MHPA as per the SDBG do not apply to SDSU or SDSU-owned land. SDSU also is not subject to the City's land use policies.

Local

As a state agency, the California State University (CSU) is not subject to local land use regulatory/planning documents, ordinances, regulations, policies, rules, fees, or exactions. However, as part of the purchase and sale agreement between SDSU and the City for the SDSU Mission Valley site, which was executed in August 2020, SDSU agreed to help fund the planning, design, and construction of the Fenton Parkway Bridge. In furtherance thereof, and pursuant to a Memorandum of Understanding between SDSU and the City, once constructed, the City would assume operation and maintenance obligations for the bridge. As such, City regulations and guidelines are used as guidance during the planning and design of the project.

City of San Diego Multiple Species Conservation Program Subarea Plan

The Subarea Plan (1997) encompasses 206,124 acres within the MSCP Subregional Plan area. The project site is located within an area designated as Urban in the Subarea Plan. Urban habitat areas within the City's MHPA include existing designated open space such as Mission Bay, Tecolote Canyon, Marian Bear Memorial Park, Rose Canyon, San Diego River, the southern slopes along Mission Valley, Carroll and Rattlesnake Canyons, Florida Canyon, Chollas Creek, and a variety of smaller canyon systems.

The Subarea Plan is characterized by urban land uses, with approximately three-quarters either built out or retained as open space/park system. The City MHPA is a "hard line" preserve developed by the City in cooperation with the wildlife agencies, property owners, developers, and environmental groups. The MHPA identifies biological core resource areas and corridors targeted for conservation, in which only limited development may occur (City of San Diego 1997). The MHPA is considered an urban preserve that is constrained by existing or approved development and comprises habitat linkages connecting several large core areas of habitat (Figure 1-3, Multi-Habitat Planning Area, and Figure 1-4, Core Areas and Habitat Linkages, in City of San Diego 1997). The criteria used to define core and linkage areas involves maintaining ecosystem function and processes, including large animal movement. Each core area is connected to other core areas or to habitat areas outside of the MSCP either through common boundaries or through linkages. Core areas have multiple connections to help ensure that the balance in the ecosystem will be maintained (City of San Diego 1997). Critical habitat linkages between core areas are conserved in a functional manner, with a minimum of 75% of the habitat within identified linkages conserved (City of San Diego 1997).

SDSU was not involved in the preparation of the City's Subarea Plan and is not a "permittee" under this HCP. However, pursuant to a Memorandum of Understanding between SDSU and the City outlining the provisions of the planning and design of the bridge, SDSU will evaluate the project in the context of the City's Subarea Plan and companion documents, including the ESL Regulations and SDBG, even though authorization of incidental take for potential impacts to special-status species will be obtained by SDSU directly from USFWS and CDFW.

City of San Diego Municipal Code

Specific development regulations pertaining to sensitive biological resources exist in the City's Municipal Code in the ESL Regulations (Chapter 14, Division 1, Section 143.0141) and the Open Space Residential (OR-1-2) Zone (Chapter 13, Division 2, Section 131.0230) of the Land Development Code (Chapters 11 to 15 of the Municipal Code).

Environmentally Sensitive Lands Regulations

The ESL Regulations provide a compliance and implementation mechanism for the MSCP Subarea Plan and its Implementing Agreements. According to LDC Section 143.0101, the purpose of the ESL Regulations is to "protect, preserve, and, where damaged restore, the [environmentally sensitive lands] of San Diego and the viability of the species supported by those lands." In addition to serving as the implementation mechanism for the MSCP Subarea Plan, the ESL Regulations and Land Development Manual supporting documents (Biology, Steep Hillside, and Coastal Bluffs and Beaches Guidelines) serve as standards for the determination of impacts and mitigation under CEQA.

As defined in LDC Section 113.0103, environmentally sensitive lands are lands containing steep hillsides, sensitive biological resources, coastal beaches, sensitive costal bluffs, or Special Flood Hazard Areas. Development on environmentally sensitive lands requires a development permit in accordance with Section 143.0110, unless exempted pursuant to LDC Section 143.0110(c), and is subject to the ESL Regulations and various guidelines in the Land Development Manual, with limited exceptions as outlined in LDC Section 143.0111. Deviations from the ESL Regulations may be granted in accordance with LDC Section 143.0150. Deviations to the wetland regulations in Section 143.0141(b), in particular, may be granted for development that is located outside of the Coastal Overlay Zone and that qualifies under either the Essential Public Project Option, the Economic Viability Option, or the Biologically Superior Option according to LDC Section 143.0150(d). Because Fenton Parkway Bridge is a linear infrastructure project identified in the Mission Valley Community Plan as a proposed connection, it meets the criteria to be categorized as an Essential Public Project (see LDC Section 143.0150[d][1][B][ii]).

City of San Diego Biology Guidelines

The City of San Diego Development Services Department developed the SDBG presented in the Land Development Manual "to aid in the implementation and interpretation of the Environmentally Sensitive Lands Regulations, San Diego Land Development Code, Chapter 14, Division 1, Section 143.0101 et seq., and the Open Space Residential (OR-1-2) Zone, Chapter 13, Division 2, Section 131.0201 et seq." (City of San Diego 2018). The SDBG also provide standards for the determination of impact and mitigation under CEQA. SDSU, as the lead agency, is not generally subject to the City's guidelines; however, for the reasons noted above and outlined in the memorandum of understanding between SDSU and the City for planning and design of the bridge, the biological resources technical report (Appendix C) includes the same level of detail and analysis that is required by the City for a report that is within the City's jurisdiction and is consistent with the SDBG.

City of San Diego Stadium Wetland Mitigation Site

The project site is located within and adjacent to the City's Stadium Wetland Mitigation Site. The 57-acre Stadium Wetland Mitigation Site was implemented by the City's Public Utilities Department to generate compensatory mitigation credit for the City by providing re-establishment, rehabilitation, and enhancement of wetlands within

the San Diego River. The Stadium Wetland Mitigation Site includes multiple "no-credit areas" located throughout its boundary. One of these "no-credit areas" is the project site (Figure 3.3-2, Regulatory Setting).

3.3.3 Significance Criteria

The City's California Environmental Quality Act Significance Determination Thresholds (City of San Diego 2022) and Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) contain guidelines for determining the significance of impacts to biological resources. For the purposes of this project, significance thresholds have been adapted from the City's Significance Thresholds and Appendix G of the CEQA Guidelines. A potentially significant impact to biological resources would occur if the proposed project would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the MSCP or other local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
2. Have a substantial adverse effect on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the SDBG of the Land Development Manual or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
3. Have a substantial adverse effect on local, state, or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP, or impede the use of native wildlife nursery sites.
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, either within the MSCP area or in the surrounding region.

3.3.4 Impacts Analysis

Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the MSCP or other local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Direct Impacts

Least Bell's Vireo

Least Bell's vireo is a federally and state-listed endangered species and is a covered species under the City's Subarea Plan. Least Bell's vireo has been detected within and adjacent to the project site during the 2017, 2019, and 2022 surveys. Figures 3.3-1 – View 1 through 3.3-1 – View 4 include these observations.

The project would result in both permanent and temporary impacts to southern cottonwood–willow riparian forest (0.80 acres permanent, 0.38 acres temporary) and unvegetated channel (0.03 acres permanent, 0.02 acres temporary) within the San Diego River, which have the potential to support this special-status species. Permanent impacts include grading, bridge pier construction, and bridge shading. While vegetation removed under the bridge during construction would be revegetated with riparian species that could support special-status species, including least Bell's vireo, the restored habitat under the bridge may not have equal function and value as the habitat currently present and so is considered a permanent impact in this analysis.

By impacting southern cottonwood–willow riparian forest and the unvegetated channel within the San Diego River, the proposed project would adversely affect suitable habitat for least Bell's vireo, which is a federally and state-listed endangered species. Given the presence of least Bell's vireo on site, this impact would be **potentially significant** absent mitigation (Impact BIO-1).

Willow Flycatcher, Including Southwestern Willow Flycatcher

Willow flycatcher consists of five subspecies, three of which—*E. t. brewsteri*, *E. t. adastus*, and *E. t. extimus*—are native to Southern California. All three are listed as endangered under CESA, but only *E. t. extimus*, more commonly known as the southwestern willow flycatcher, is also federally listed. In addition, only the southwestern willow flycatcher is known to breed and reside in San Diego County, where it is a covered species under the City's Subarea Plan. The other two willow flycatcher subspecies, while occasionally observed in San Diego County, are considered migrants.

Southwestern willow flycatcher were not observed during focused protocol surveys in 2022, nor were they detected during focused surveys in this stretch of the river in 2017 and 2019 (Dudek 2017, 2019a). Given the lack of possible breeding individuals (i.e., southwestern willow flycatchers) recorded here since 2009 and the lack of any willow flycatchers detected during the 2017, 2019, and 2022 focused protocol surveys, it is unlikely that southwestern willow flycatcher occurs within the project site. However, there is suitable habitat in the San Diego River for this species, and thus it has the potential to occur on site in the future.

The project would result in both permanent and temporary impacts to southern cottonwood–willow riparian forest (0.80 acres permanent, 0.38 acres temporary) and unvegetated channel (0.03 acres permanent, 0.02 acres temporary) within the San Diego River, which could have the potential to support this special-status species in the future. If southwestern willow flycatcher were to occur on site in the future, impacts to individuals of the species and/or occupied habitat would be **potentially significant** absent mitigation (Impact BIO-2).

Coastal California Gnatcatcher

Coastal California gnatcatcher is a federally listed threatened species, a CDFW SSC, and a covered species under the City's Subarea Plan. Focused surveys were conducted in 2019 and 2023 to determine presence or absence within the Baccharis-dominated Diegan coastal sage scrub and Diegan coastal sage scrub on site. No coastal California gnatcatcher were observed. A pair of coastal California gnatcatcher with fledglings was observed approximately 350 feet east of the proposed staging area in the southern portion of the project site during the 2023 surveys. There is suitable coastal sage scrub within the southern portion of the site near this observation that could be used by this species in the future.

No coastal California gnatcatchers were observed in the coastal sage scrub communities north of the San Diego River during the 2019 surveys, and the species has low potential to occur there. The Baccharis-dominated Diegan coastal sage scrub and Diegan coastal sage scrub north of the river is marginal and patchy and not expected to support this species. However, the 1.99-acre patch of coastal sage scrub in the southern portion of the site where the proposed staging area is located is near an observed pair and fledglings and could be used by this species in the future. There are 1.99 acres of temporary impacts associated with this staging area. Impacts to this habitat would be **potentially significant** absent mitigation (Impact BIO-3).

Other Special-Status Birds

Other special-status birds were detected within the project site during the focused riparian bird surveys, including Cooper's hawk, yellow-breasted chat, and yellow warbler.

Riparian forest habitat in the San Diego River provides suitable habitat for these species, and the project would result in both permanent and temporary impacts to southern cottonwood–willow riparian forest (0.80 acres permanent, 0.38 acres temporary) and unvegetated channel (0.03 acres permanent, 0.02 acres temporary) within the San Diego River, which could support these special-status species. Impacts to this habitat would be **potentially significant** absent mitigation (Impact BIO-4).

Special-Status Amphibians and Reptiles

The Southern California legless lizard, orange-throated whiptail, southwestern pond turtle, two-striped gartersnake, and western spadefoot have moderate potential to occur in the riparian vegetation of aquatic habitats within the San Diego River. Orange-throated whiptail also has a moderate potential to occur in the coastal sage scrub habitat south of the river. These species are not federally or state listed as threatened or endangered but are CDFW-designated WLs or SSCs and/or covered species under the City's Subarea Plan.

The project would result in both permanent (0.78 acres) and temporary impacts (0.38 acres) to southern cottonwood–willow riparian forest and unvegetated channel (0.03 acres permanent, 0.02 acres temporary) within the San Diego River, which could have the potential to support these special-status reptiles and amphibians. The project would also result in both permanent impacts (0.07 acres) and temporary impacts (2.03 acres) to coastal sage scrub communities south of the San Diego River, which could have the potential to support orange-throated whiptail. Impacts to potentially occupied habitat would be **potentially significant** absent mitigation (Impact BIO-5).

Special-Status Mammals

The Mexican long-tongued bat, western yellow bat, and western red bat have potential to forage over the project site and could roost within the riparian forests of the San Diego River. These species are not federally or state listed as threatened or endangered but are CDFW SSCs. While the project would result in both permanent and temporary impacts to southern cottonwood willow riparian forest (0.80 acres permanent, 0.38 acres temporary) and unvegetated channel (0.03 acres permanent, 0.02 temporary) within the San Diego River, which support these species, it is anticipated that foraging habitat would have similar function and quality after project implementation. Impacts to foraging habitat would not have a substantially adverse effect on these species and would be **less than significant**. Maternity roosts are protected under California Fish and Game Code and can be considered a nursery site; riparian trees in the San Diego River could provide suitable roosting habitat for these species. Impacts to maternity roosts would be **potentially significant** absent mitigation (Impact BIO-6).

Special-Status Invertebrates

There is suitable habitat for Crotch's bumble bee where floral resources are present, primarily in the coastal sage scrub habitat types. There are permanent impacts (0.07 acres) and temporary impacts (2.03 acres) to coastal sage scrub communities. Impacts to potentially occupied habitat would be **potentially significant** absent mitigation (Impact BIO-7).

Birds Protected Under the Migratory Bird Treaty Act and Fish and Game Code

Construction activities are anticipated to occur during a period lasting up to 60 weeks, and some activities would occur during the bird nesting season (typically February 1 through September 15). There are numerous birds that could nest within or adjacent to the project site. Therefore, impacts to migratory birds or destruction of active migratory bird nests and/or eggs would be **potentially significant** because the species and their nests are protected under the MBTA and California Fish and Game Code (Impact BIO-8).

Other Species

No special-status fish have potential to occur (see Appendix C). Fish in the low flow channel could be temporarily disturbed by turbidity, piledriving vibrations, and noise, should in-channel construction activities take place. Most fish would leave the immediate project area. After in-channel activities are complete, reduced numbers of invertebrates (until recolonization is complete) would reduce the food supply for some fish species; however, those effects would be short term and localized.

Invertebrate organisms and fish present in the low flow channel could also be affected should contaminated river sediments be released into the water column during construction-related activities. Contaminates could become incorporated into the surrounding environment and biomagnified in the river's food web, resulting in direct or indirect impacts to organisms present in the river channel. However, upon implementation of avoidance and minimization measures and mitigation listed in Section 3.3.7, the release of contaminated sediments into the environment, and the potential for incorporation and biomagnification of contaminates in the food web, would be avoided or reduced.

Special-Status Plants

Two special-status plants were observed within the project site: San Diego County viguiera and San Diego marsh-elder. Grading, vegetation removal, and habitat conversion could directly impact special-status plants if they occur within the construction footprint. San Diego County viguiera occurrences are located along the southern edge of the potential staging area, within a temporary impact area; therefore, impact to San Diego County viguiera is **potentially significant** absent mitigation (Impact BIO-9). Three San Diego marsh-elder occurrences are mapped within the development footprint. Impact to one San Diego marsh-elder is **potentially significant** absent mitigation (Impact BIO-9).

Indirect Impacts

Short-Term Indirect Impacts to Special-Status Plants

Short-term indirect impacts associated with project implementation could affect special-status plants if they occur adjacent to the project site. Short-term or temporary indirect impacts to special-status plants adjacent to the project site could primarily result from construction activities and include impacts related to or resulting from the

generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of chemical pollutants (including herbicides).

Generation of Fugitive Dust. Excessive dust can decrease the vigor and productivity of vegetation through effects on light, penetration, photosynthesis, respiration, transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases.

Changes in Hydrology. There is potential for construction to result in hydrologic and water-quality-related impacts adjacent to and downstream of the limits of grading. The hydrologic regime will not be altered since that is dictated by the climate and watershed. Altered hydraulics can have a localized effect on immediately adjacent and downstream (off-site) aquatic, wetland, and riparian vegetation communities. Water-quality impacts could include chemical-compound pollution (fuel, oil, lubricants, paints, release agents, and other construction materials) or increased sediment load. Removal of native vegetation associated with direct impacts could result in localized increased scour and transport of sediment downstream. The low flow channel will remain in place and removal of vegetation will be limited to areas outside of the low flow channel within the impact footprint. In addition, a stormwater pollution prevention plan outlining best management practices to reduce discharges of pollutants in stormwater from construction sites to the maximum extent practicable and effectively prohibit non-stormwater discharges from the construction site will be developed and implemented.

Aerial imagery from the past 10 years indicates that unvegetated areas have been regularly present within the San Diego River floodplain and have likely resulted in the natural mobilization of sediment into and out of the Stadium Wetland Mitigation Site during storm events, which is consistent with the natural processes of the river system. Nevertheless, absent implementation of mitigation and minimization measures, construction-related impacts could have minimal downstream effects on aquatic, wetland, and riparian vegetation communities, including the adjacent Stadium Wetland Mitigation Site. Implementation of the measures described in Section 3.3.7, such as the installation of coir mat ahead of rain events,[1] will act as a soil stabilization measure and prevent downstream sedimentation.

Chemical Pollutants. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect special-status plants. The use of chemical pollutants can decrease the number of plant pollinators, increase the existence of non-native plants, and cause damage to and destruction of native plants.

Short-term indirect impacts to special-status plants associated with project implementation would be **potentially significant** absent mitigation (Impact BIO-10).

Long-Term Indirect Impacts to Special-Status Plants

Long-term (operation-related) or permanent indirect impacts could result from the proximity of the proposed development to special-status plants adjacent to the project site after construction. Permanent indirect impacts associated with project implementation that could affect special-status plants include habitat fragmentation, chemical pollutants, altered hydrology, and non-native invasive species.

[1] Coir mat will be installed prior to rain events that are expected to result in surface flows exceeding a depth of 4 feet. Predicted depths will be based on the National Weather Service Advanced Hydrologic Prediction Service for the San Diego River at Fashion Valley, as reported here: https://water.weather.gov/ahps2/hydrograph.php?wfo=sgx&gage=fsnc1.

Chemical Pollutants. The effects of chemical pollutants on special-status plant species are described above. Landscaping has not been finalized; however, only plants that do not need fertilizers would be used in the landscape palette. Additionally, no herbicides or pesticides would be used in the landscaped areas. For stormwater runoff on the bridge, because the roadway would not have shoulders, standard California Department of Transportation (Caltrans) Type D-1 deck drains are proposed on the bridge to minimize water flowing in traffic lanes. Drainpipes would carry water longitudinally below the bridge deck through the bridge abutments into the storm drain system, where the stormwater would be treated in accordance with water quality regulations.

Altered Hydrology. The river's low flow channel would remain in place, with water flowing relatively unobstructed through the floodplain during higher flood events. For stormwater runoff on the bridge, because the roadway would not have shoulders, standard Caltrans Type D-1 deck drains are proposed on the bridge to minimize water flowing in traffic lanes. Drainpipes would carry water longitudinally below the bridge deck through the bridge abutments into the storm drain system, where the stormwater would be treated in accordance with water quality regulations.

Non-Native, Invasive Plant and Animal Species. Invasive plant species that thrive in edge habitats are well documented in Southern California and throughout the United States. Bossard et al. (2000) list several adverse effects of non-native species in natural open areas, including, but not limited to, exotic plant competition for light, water, and nutrients and the formation of thatches that block sunlight from reaching smaller native plants.

The project site already contains invasive species, and other invasive plant species may establish adjacent to the project site and alter habitats and displace native species over time, leading to extirpation of native plant species and unique vegetation communities. The introduction of non-native, invasive animal species could negatively affect native species that may be pollinators of or seed dispersal agents for plants within vegetation communities and special-status plant populations.

Long-term indirect impacts to special-status plants associated with project implementation would be **potentially significant** absent mitigation (Impact BIO-11).

Short-Term Indirect Impacts to Special-Status Wildlife Species

Short-term, construction-related, or temporary indirect impacts to special-status wildlife species that have moderate potential to occur (see Appendix C) would primarily result from construction activities associated with project implementation. Potential temporary indirect impacts could occur as a result of generation of fugitive dust, noise, lighting, chemical pollutants, increased human activity, and non-native animal species.

Generation of Fugitive Dust. Dust and applications for fugitive dust control can impact vegetation surrounding the limits of grading, resulting in changes in community structure and function. These changes could result in impacts to suitable habitat for special-status wildlife species.

Noise. Construction-related noise would result from equipment used during construction. Noise impacts can have a variety of indirect impacts on wildlife species, including increased stress, weakened immune systems, altered foraging behavior, displacement due to startle, degraded communication with conspecifics (e.g., masking), damaged hearing from extremely loud noises, and increased vulnerability to predators (Lovich and Ennen 2011; Brattstrom and Bondello 1983, as cited in Lovich and Ennen 2011). The predicted construction-related concurrent phase "without barrier" noise levels for the nearest noise-sensitive receptor range from 68 A-weighted decibels (dBA) equivalent continuous sound level (L_{eq}) to 81 dBA L_{eq} over the duration of up to 60 weeks (Dudek

2023). The predicted construction-related concurrent phase "with barrier" noise levels for the nearest noise-sensitive receptor range from 60 dBA L_{eq} to 71 dBA L_{eq} over the duration of 60 weeks (Dudek 2023). The noise model ranges are based primarily on construction equipment, such as (but not limited to) pile drivers, excavators, cranes, and loaders.

The coastal sage scrub located outside of the project work area in the north was surveyed for coastal California gnatcatcher in 2019 and the results were negative. While the probability of coastal California gnatcatcher occurring here is low, construction-related noise impacts could affect upland bird species within this area.

Lighting. Nighttime lighting may occur during portions of the construction phasing but would be limited in use, as nighttime construction work would be limited, if performed at all.

Chemical Pollutants. Accidental spills of hazardous chemicals could contaminate nearby surface waters and groundwater and indirectly impact wildlife species through poisoning or altering suitable habitat.

Increased Human Activity. Construction activities adjacent to the San Diego River can deter wildlife from using already constrained habitat areas near the project site.

Non-native Animal Species. Trash from construction-related activities could attract invasive predators (e.g., ravens [*Corvus corvax*], coyotes, rats [*Rattus* spp.], Virginia opossums [*Didelphis virginiana*], raccoons, American crows [*Corvus brachyrhynchos*], and gulls [*Larus* spp.]) that could impact the wildlife species in the project site or surrounding areas.

Short-term indirect impacts to special-status wildlife species associated with project implementation would be **potentially significant** absent mitigation (Impact BIO-12).

Long-Term Indirect Impacts to Special-Status Wildlife Species

Potential long-term or permanent indirect impacts associated with project implementation to special-status wildlife species that have been observed or have high or moderate potential to occur (see Appendix C) include non-native, invasive plant and animal species; lighting; increased vehicle traffic; and altered hydrology.

Non-native, Invasive Plant and Animal Species. Invasive plant species that thrive in edge habitats are well-documented in Southern California and throughout the United States. Bossard et al. (2000) list several adverse effects of non-native species in natural open areas, including, but not limited to, the fact that exotic plants compete for light, water, and nutrients and can create a thatch that blocks sunlight from reaching smaller native plants. Exotic plant species may alter habitats and displace native species over time, leading to extirpation of native plant species and subsequently suitable habitat for special-status wildlife species. In addition, trash can attract invasive predators, such as ravens and coyotes, that could impact the wildlife species in the project site. Least bell's vireo, which have been documented in the San Diego River, are susceptible to nest parasitism from brown-headed cowbirds (*Molothrus ater*). Microhabitat cover is an important habitat feature that influences incidence of brown-headed cowbird parasitism of vireo nests, with more cover near a nest reducing the chances that a cowbird will observe vireo nesting activity and subsequently parasitize a nest (Sharp and Kus 2010). Removal of riparian habitat reduces the amount of available habitat utilized by vireos or may reduce the amount of dense riparian cover available for hiding nests, which increases the risks of nest parasitism. Therefore, bridge construction activities that reduce riparian habitat or cover may increase vireo susceptibility to nest parasitism.

Noise. Operation-related noise, including noise from car traffic on the new bridge, can have the same type of impacts to wildlife as described above under the short-term indirect impacts. The measured ambient noise levels within the San Diego River near the project area and riparian vegetation adjacent to Fenton Parkway ranged from 51 dBA L_{eq} to 64 dBA L_{eq} (Dudek 2023). Some of these measured levels are higher than the 60 dBA hourly L_{eq} threshold typically used for analyzing impacts to special-status species, such as least Bell's vireo and coastal California gnatcatcher. The predicted "with project" traffic noise levels for the project area in 2035 (the worst-case traffic noise scenario for the project) range from 55 dBA L_{eq} to 72 dBA L_{eq} (Dudek 2023). Dudek acousticians analyzed two scenarios to determine if there would be significant indirect impacts affecting the occupation of otherwise potentially suitable habitat for special-status species: (1) areas that currently have noise levels averaging less than 60 dBA Leq that would exceed 60 dBA Leq under the modeled noise levels in 2035 and (2) areas where the change between the current average noise levels and modeled noise levels in 2035 exceeds 3 dBA Leq. It is assumed that a 3 dBA L_{eq} increase is the threshold for an increase that would be perceptible to wildlife. These areas are depicted on Figure 3.3-3, Noise Modeling. The height of the bridge (20 feet) from the ground and the walls of the bridge (7.5 feet) sufficiently buffer habitat and result in modeled noise levels at approximately 2 meters from the ground (with 2035 levels) that are almost always less than 60 dBA L_{eq} within the San Diego River. Least Bell's vireo typically nest 0.6–0.9 meters (2–3 feet), but sometimes 0.3–3.0 meters (1–10 ft), off the ground (USFWS 1998; Kus et al. 2022; Zeiner et al. 1998-1990). Where noise levels were higher, the existing ambient conditions are generally higher than 60 dBA L_{eq} at current noise levels; birds in these areas have likely adapted to the higher noise levels through increasing their own vocalization levels (Caltrans 2016).

Least Bell's vireo's breeding territory sizes ranges by region, but in a study in the San Diego River the territory size was approximately 0.7 hectares or 1.7 acres (7,000 square meters) (Kus et al. 2022). In 2016, Caltrans published the Technical Guidance for Assessment and Mitigation of the Effects of Highway and Road Construction Noise on Birds. This document describes communication types (comfortable communication, individual recognition, discrimination, and detection) at varying distances depending on traffic noise levels (dBA). At 60 dBA, birds can comfortably communicate up to 60 meters, recognition of vocalization can occur up to 210 meters, discrimination between two vocalizations at about 270 meters, and detection at about 340 meters (Caltrans 2016). The diameter of 7,000 square meters (estimated breeding territory) is approximately 94 meters, meaning birds can recognize vocalizations well within noise levels at 60 dBA. At higher levels, such as 65 dBA, birds can comfortably communicate up to 35 meters, recognition of vocalization can occur up to 125 meters, discrimination between two vocalizations at about 150 meters, and detection at about 180 meters (Caltrans 2016). This indicates that birds such as least Bell's vireo could continue to effectively communicate within their territories in the San Diego River after the bridge is built and at maximum modeled noise levels.

Areas where noise levels would result in a 3 dBA Leq (or more) change between the current average noise levels and modeled noise levels in 2035 are limited to the fringes of the San Diego River where it meets Mission City Parkway and Camino Del Rio North (southern boundary of the river) or near the Mission Valley River Park, trolley tracks, Fenton Parkway, and River Park Road (northern boundary of the river). Birds such as least Bell's vireo have not been recorded along these outer fringes of the river and are less likely to nest in these areas compared to the interior protected portions of the river. The modeled areas with potentially significant noise levels (see Figure 3.3-3) that intersect with southern cottonwood–willow riparian forest in the north are within the permanent impact area; modeled noise levels do not result in additional impacts to this habitat beyond the permanent impact area.

Lighting. Standard cobra-head light fixtures would be mounted on concrete pedestals behind the bridge barrier. Luminaire shielding may be necessary to reduce light levels in the river habitat in compliance with the MSCP's Land Use Adjacency Guidelines. There may be some light spill into the river from the City's standard fixtures. Regardless of design, additional light spill into the San Diego River and associated habitat would occur due to car headlights from traffic on the new bridge. Based on feedback received during final design, including input from the City, SDSU may adjust the specific types of light poles, arms, and luminaires to suit aesthetics, if necessary.

Increased Human Activity/Vehicle Traffic. The proposed project includes a bridge spanning the San Diego River, where currently none exists. Wildlife associated with the San Diego River could be subject to increased car-wildlife interaction (and lighting/noise, discussed above) due the presence of increased traffic. A study performed by Dudek (2018) tracked avian mortalities and avoidance flight behaviors at the West Mission Bay Bridge (along the San Diego River, but coastal) in 2017, resulting in 100 surveys over 21 weeks (16,000 hours of observation time). The study detected over- or under-flights of the bridge by 12,854 birds with only six avian mortalities detected including three western gulls (*Larus occidentalis*), a double-crested cormorant (*Phalacrocorax auritus*), a western grebe (*Aechmophorus occidentalis*), and a rock pigeon (*Columba livia*). Bridge and vehicle avoidance behavior was detected for 16 species, primarily in the central portion of the bridge, and was highest at dawn or dusk periods. Vehicles on the bridge could result in occasional avian mortality due to collisions with vehicles. Birds such as doves (Columbidae), barn owls (*Tyto alba*), and waterfowl may fly in the elevation range of the bridge (i.e., 25-30 feet) and collide with vehicles. Rock pigeons and doves are likely to sit on bridge structural components. However, smaller passerine birds such as least Bell's vireo, yellow warbler, and yellow-breasted chat are expected to avoid the road surface and traffic areas of the bridge as they typically fly shorter distances (outside of migration) and within the tree canopy and understory to avoid predation and are less likely to fly over the bridge and collide with vehicles. Least Bell's vireo capture insects through foliage gleaning or hover-gleaning mid-air and have been documented to typically forage below 4 meters (13 feet) (Salata 1983) and between 3 and 6 meters (9.8 feet and 22.8 feet) (Miner 1989).

Altered Hydrology. The river's low flow channel would remain in place, with water flowing relatively unobstructed through the floodplain during higher flood events. The placement of piers and abutments within the San Diego River could alter local aquatic habitat by constraining the channel at times during high flows or redirecting flows around the piers, leaded to scouring and creation of artificial pools or other habitat features adjacent to the piers. As described in the Hydraulic Report for the San Diego State University Mission Valley Campus Fenton Parkway Bridge (Chang Consultants 2023), the bridge would cause a minor decrease in base flood elevations in the immediate two cross-sections just upstream, then a slight increase from cross sections 43153 to 44513 (Chang Consultants 2023). The decrease occurs because vegetative cover would be reduced by the bridge shadow. The nearly negligible base flood elevation increases would be contained with the southerly San Diego River channel bank and would not cause adverse off-site impacts. In addition, the bridge would have over 6 feet of freeboard over the base flood elevation, so it could adequately convey the 100-year flow. Less intense storm events, such as 10-year flows, would have even less impacts compared to the 100-year flow. No long-term impacts to wildlife within the river are anticipated.

For stormwater runoff on the bridge, because the roadway would not have shoulders, standard Caltrans Type D-1 deck drains are proposed on the bridge to minimize water flowing in traffic lanes. Drainpipes would carry water longitudinally below the bridge deck through the bridge abutments into the storm drain system, where the stormwater would be treated in accordance with water quality regulations.

Long-term indirect impacts to special-status wildlife species associated with project implementation would be **potentially significant** absent mitigation (Impact BIO-13).

Would the project have a substantial adverse effect on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the SDBG of the Land Development Manual or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Direct Impacts

Sensitive Natural Communities

The project site was surveyed for vegetation communities. The results of the surveys are provided in Table 3.3-1. A total of three vegetation communities were mapped on the project site, including the native vegetation communities of Baccharis-dominated Diegan coastal sage scrub, Diegan coastal sage scrub, and southern cottonwood–willow riparian forest, as well as two non-native vegetation communities—urban/developed and unvegetated channel. Anticipated temporary and permanent impacts to these communities/land covers are shown in Tables 3.3-3 and 3.3-4 and on Figures 3.3-4 – View 1 through 3.3-4 – View 4, Impacts to Biological Resources.

Table 3.3-3. Temporary Impacts to Vegetation Communities/Land Cover Types

Habitat Types/Vegetation Communities	City of San Diego Habitat Tier Code	Existing Acres	Total Temporary Impacts (acres)
Native Vegetation Communities			
Baccharis-dominated Diegan Coastal Sage Scrub	Tier II	0.03	N/A
Diegan Coastal Sage Scrub	Tier II	2.05	2.03
Southern Cottonwood–Willow Riparian Forest	City Wetland (Riparian Habitat)	1.18	0.38
Subtotal	*N/A*	*3.27*	*2.41*
Non-Native Vegetation Community/Land Cover Types			
Urban/Developed	Tier IV	9.58	8.44
Non-Vegetated Channel	City Wetland (Natural Flood Channel)	0.04	0.02
Subtotal	*N/A*	*9.62*	*8.46*
Total*	**N/A**	**12.89**	**10.86**

Note:
* Acreages may not sum due to rounding.

Table 3.3-4. Permanent Impacts to Vegetation Communities/Land Cover Types

Habitat Types/Vegetation Communities		Existing On-Site Acres	Total Permanent Impacts (acres)
Native Vegetation Communities			
Baccharis-Dominated Diegan Coastal Sage Scrub	Tier II	0.03	0.03
Diegan Coastal Sage Scrub (Restored)	Tier II	2.05	0.03

Table 3.3-4. Permanent Impacts to Vegetation Communities/Land Cover Types

Habitat Types/Vegetation Communities		Existing On-Site Acres	Total Permanent Impacts (acres)
Southern Cottonwood–Willow Riparian Forest	City Wetland (Riparian Habitat)	1.18	0.80
Subtotal	*N/A*	*3.27*	*0.86*
Non-Native Vegetation Community/Land Cover Types			
Urban/Developed	Tier IV	9.58	1.14
Non-Vegetated Channel	City Wetland (Natural Flood Channel)	0.04	0.03
Subtotal	*N/A*	*9.62*	*1.17*
Total*	**N/A**	**12.89**	**2.03**

Note:
* May not sum due to rounding.

There are temporary impacts to 2.03 acres of Diegan coastal sage scrub and 8.44 acres of urban/developed land. Temporary impacts to Diegan coastal sage scrub would be **potentially significant** absent mitigation (Impact BIO-15).

Southern cottonwood–willow riparian forest is regulated as riparian habitat by California Fish and Game Code Section 1600. The layback cut, potential staging, and work areas would result in temporary impacts to up to 0.38 acres of southern cottonwood–willow riparian forest. Temporary impacts to these sensitive natural communities would be **potentially significant** absent mitigation (Impact BIO-14).

Project implementation would result in permanent impacts to Baccharis-dominated Diegan coastal sage scrub (0.03 acres), 0.03 acres of Diegan coastal sage scrub, and 1.14 acres of urban/developed land. Permanent impacts to Baccharis-dominated Diegan coastal sage scrub and restored Diegan coastal sage scrub would be **potentially significant** absent mitigation (Impact BIO-14). Project implementation would permanently impact 0.80 acres of southern cottonwood–willow riparian forest. Permanent impacts to this sensitive natural community would be **potentially significant** absent mitigation (Impact BIO-14).

Jurisdictional Waters

Impacts to jurisdictional features are summarized in Tables 3.3-5 and 3.3-6. Temporary impacts total approximately 0.40 acres. Permanent impacts total approximately 0.83 acres, including 0.50 acres of wetland, 0.07 acres of non-wetlands waters/CDFW riparian area, and 0.27 acres of CDFW riparian area. Temporary and permanent impacts to jurisdictional features would be **potentially significant** absent mitigation (Impact BIO-15).

Table 3.3-5. Temporary Impacts to Jurisdictional Aquatic Resources

Habitat Types/Vegetation Communities	Temporary Impacts[1] (acres)
USACE/RWQCB/CDFW/City of San Diego Jurisdictional	
Non-wetland Waters/City Wetland	0.02
Wetland/City Wetland	0.32
Subtotal	*0.34*

Table 3.3-5. Temporary Impacts to Jurisdictional Aquatic Resources

Habitat Types/Vegetation Communities	Temporary Impacts[1] (acres)
CDFW/City of San Diego Jurisdictional	
Riparian Area/City Wetland	0.06
Total*	**0.40**

Notes: USACE = U.S. Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife.

1 City regulations do not differentiate between temporary and permanent wetland impacts. This impact would be mitigated as permanent and in accordance with SDBG Table 2a for an Essential Public Project.

* May not sum due to rounding.

Table 3.3-6. Permanent Impacts to Jurisdictional Aquatic Resources

Jurisdictional Aquatic Resource	Permanent Impacts (acres)
USACE/RWQCB/CDFW/City of San Diego Jurisdictional	
Non-wetland Waters–Riparian Area/City Wetland	0.07
Wetland/City Wetland	0.50
Subtotal	*0.57*
CDFW/City of San Diego Jurisdictional	
Riparian Area/City Wetland	0.27
Total*	**0.83**

Notes: USACE = U.S. Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife.

* May not sum due to rounding.

Indirect Impacts

Sensitive Natural Communities (Short Term and Long Term)

Potential short-term and long-term indirect impacts to sensitive natural communities associated with project implementation would be the same as those described for special-status plants (Impacts BIO-9, BIO-10, and BIO-11). These impacts would be **potentially significant** absent mitigation.

Jurisdictional Waters (Short Term)

The City's Stadium Wetland Mitigation Site is located adjacent to the project site (see Figure 3.0-1). Potential short-term or temporary indirect impacts to jurisdictional waters and wetlands adjacent to or downstream from the project site would primarily result from construction activities, and would include impacts related to or resulting from changes in hydrology resulting from construction, including sedimentation and erosion, and the introduction of chemical pollutants (including herbicides). Potential short-term indirect impacts associated with project implementation that could affect jurisdictional waters and wetlands of the San Diego River and a drainage (Figures 3.3-4 – View 1 through 3.3-4 – View 4) are described in detail as follows.

Changes in Hydrology. Construction could result in hydrologic and water-quality-related impacts within the San Diego River. The effects of changes in hydrology would be similar to those described above.

Chemical Pollutants. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect jurisdictional waters. The use of chemical pollutants can decrease the number of plant pollinators, increase the existence of non-native plants, and cause damage to and destruction of native plants.

Short-term indirect impacts to jurisdictional waters associated with project implementation would be **potentially significant** absent mitigation (Impact BIO-16).

Jurisdictional Waters (Long Term)

Long-term (operation-related) or permanent indirect impacts could result from the bridge spanning the jurisdictional waters and wetlands of the San Diego River after construction, including impacts related to operation and maintenance. Operation and maintenance activities would occur within the project site. Permanent indirect impacts associated with project implementation that could affect jurisdictional waters and wetlands include habitat fragmentation, chemical pollutants, altered hydrology, non-native invasive species, and increased human activity, especially vehicle traffic.

Chemical Pollutants. The effects of chemical pollutants on jurisdictional waters and wetlands are described above.

Altered Hydrology. The river's low flow channel would remain in place, with water flowing unobstructed through the floodplain during higher flood events. For stormwater runoff on the bridge, because the roadway would not have shoulders, standard Caltrans Type D-1 deck drains are proposed on the bridge to minimize water flowing in traffic lanes. Drainpipes would carry water longitudinally below the bridge deck through the bridge abutments into the storm drain system, where the stormwater would be treated in accordance with water quality regulations.

Non-native, Invasive Plant and Animal Species. The effects of chemical pollutants would be similar to those described above. The introduction of non-native, invasive animal species could negatively affect native species that may be pollinators of or seed dispersal agents for plants within jurisdictional waters and wetlands.

Increased Human Activity/Vehicle Traffic. The effects of increased human activity and vehicle traffic would be similar to those described above.

Long-term indirect impacts to jurisdictional waters associated with project implementation would be **potentially significant** absent mitigation (Impact BIO-17).

Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Project implementation would permanently impact 0.80 acres of southern cottonwood–willow riparian forest. Permanent impacts to this sensitive natural community would be **potentially significant** absent mitigation (Impact BIO-14).

Impacts to jurisdictional features are summarized in Tables 3.3-4 and 3.3-5. Temporary impacts total approximately 0.40 acres. Permanent impacts total approximately 0.85 acres. Temporary and permanent impacts to jurisdictional features would be **potentially significant** absent mitigation (Impact BIO-15).

Short-term and long-term indirect impacts to state and federal wetlands would be **potentially significant** absent mitigation (see Impacts BIO-16 and BIO-17).

Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP, or impede the use of native wildlife nursery sites?

Direct Impacts

While the project site is 74% developed, the proposed Fenton Parkway Bridge would cross the San Diego River, which functions as a regionally important wildlife corridor and live-in habitat for species. It is expected that wildlife movement within the San Diego River corridor would be impacted during construction due to vegetation removal, presence of ongoing construction activity, fencing, noise, lighting, and the presence of equipment and bridge falsework. However, many of the potentially affected species would be able to move through the area at night or crepuscular periods, when work has ceased and when a majority of the anticipated mammalian species (e.g., coyote, bobcat, mesocarnivores) are expected to be active. Species that would normally move through the riparian forests would have limited ways to move up or downstream through the San Diego River during construction activities (developed areas surrounding the site would make it difficult or impossible for wildlife to go around the construction areas). Temporary fencing would be installed in the work area to prevent impacts to resources outside of the limits of work. Due to the potential for flood events in the river, the fencing material may be more substantial than the standard orange construction fencing. If fencing such as chain-link fencing is required within the river, it would be constructed to allow for wildlife to continue to move through the river. The proposed conditions of the San Diego River floodplain are anticipated to be very similar to existing conditions and therefore would not limit movement for ground-based species any more than current conditions. Under both current and proposed conditions, few species would be expected to attempt movements during these rain events and no special-status ground-based species are expected to be affected. Avian species flying above the riparian canopy may have increased vehicle interaction risk after project completion due to traffic on the new bridge, though the area currently supports over 25 bridges, with many supporting high-volume traffic.

Because the bridge structure provides a much greater openness ratio than the minimum recommended 0.8, the structure design itself is not expected to affect wildlife movement ability.

Short-term and long-term direct impacts to the San Diego River wildlife corridor would be **potentially significant** absent mitigation (Impacts BIO-18 and BIO-19).

Special-Status Bat Roosts

The impacts to the riparian forest could impact roosting bats (including maternity roosts). While specific surveys for bats were not done and bats were not observed during various biological resource surveys done on or adjacent to the project site, the riparian trees provide suitable roosting habitat for some bats species, including Mexican long-tongued bat, western yellow bat, and western red bat. Maternity roosts are protected under the California Fish and Game Code and can be considered a nursery site. Impacts to maternity roosts would be **potentially significant** absent mitigation (Impact BIO-6).

Indirect Impacts

Short Term

The project site is within the San Diego River and is an important habitat area for wildlife and possibly local wildlife movement, particularly birds. Short-term indirect impacts to the San Diego River could result from increased human activity lighting (possible bridge-lighting and vehicle-headlight overspill) and noise (traffic- and pedestrian-related).

Increased Human Activity. Construction activities would generally be limited to between 7:00 a.m. and 5:30 p.m. Monday through Saturday, which would be consistent with the provisions of the City's noise ordinance. However, limited nighttime and Sunday work may be required. Daytime construction activities would have less effects on wildlife species such as mammals that are most active in evenings and nighttime; however, these species could be affected if nighttime construction occurs near natural habitat areas. Wildlife species such as birds, rabbits, and lizards are active in the daytime. The presence of construction activities within the San Diego River would impact wildlife living and moving through the area day or night.

Lighting. Nighttime lighting may occur during portions of the construction phasing but would be limited in use, as nighttime construction work would be limited, if performed at all. If nighttime work occurs, lighting could impact wildlife movement in and use of the immediate vicinity.

Noise. Construction-related noise would occur from equipment used during vegetation clearing. Noise impacts can have a variety of indirect impacts on wildlife species, including increased stress, weakened immune systems, altered foraging behavior, displacement due to startle, degraded communication with conspecifics (e.g., masking), damaged hearing from extremely loud noises, and increased vulnerability to predators (Lovich and Ennen 2011; Brattstrom and Bondello 1983, as cited in Lovich and Ennen 2011). The predicted construction-related concurrent phase "without barrier" noise levels for the nearest noise-sensitive receptor range from 68 dBA L_{eq} to 81 dBA L_{eq} over the duration of up to 60 weeks (Dudek 2023). Several options would be reviewed and implemented as feasible to reduce noise from construction activities (see Section 3.3.7). The predicted construction-related concurrent phase "with barrier" noise levels for the nearest noise-sensitive receptor range from 60 dBA L_{eq} to 71 dBA L_{eq} over the duration of 60 weeks (Dudek 2023). The noise model ranges are based primarily on construction equipment, such as (but not limited to) pile drivers, excavators, cranes, and loaders.

The coastal sage scrub located outside of the project work area in the north was surveyed for coastal California gnatcatcher in 2019 and the results were negative. While the probability of coastal California gnatcatcher occurring here is low, construction-related noise impacts could affect upland bird species within this area.

Short-term indirect impacts to wildlife movement would be **potentially significant** absent mitigation (Impact BIO-18).

Long Term

Long-term indirect impacts include noise, lighting, and increased human activity.

Noise. The noise impacts would be the same as those described above.

Lighting. Standard cobra-head light fixtures would be mounted on concrete pedestals behind the bridge barrier. Luminaire shielding may be necessary to reduce light levels in the river habitat in compliance with the MSCP's Land Use Adjacency Guidelines. There may be some light spill into the river from the City's standard fixtures.

Regardless of design, additional light spill into the San Diego River and associated habitat would occur due to car headlights from traffic on the new bridge. There would likely be lighting overspill from vehicles at night. This could have a negative effect on species occurring within the affected areas. Based on the bridge design and elevations, it is anticipated that any vehicular light spill would affect the adjacent tree canopy (and species occurring within the canopy) and not the lower movement areas. Therefore, light spill is expected to not pose much deterrence to ground-based wildlife moving along the river at night.

Increased Human Activity/Vehicle Traffic. As described above, the proposed bridge would connect existing developed areas, but its placement over the San Diego River could increase noise, vehicle lights, and disturbance on the bridge above this important wildlife corridor. Wildlife species that use the San Diego River could be impacted once construction is complete in a variety of ways, ranging from people throwing trash over the bridge (including cigarette butts leading to fire), to accidents releasing chemicals, or any number of other hypothetical situations. Development of the bridge could create shaded, disturbed areas that might increase encampments and access in the river corridor. There is existing chain-link fencing along the southern portion of the river to keep people from accessing the river, and this fencing would remain after the bridge is built. In addition, abutments would be designed to limit abutment clearance, and slopes intersecting with bridge abutments would be angled to limit accessibility and the potential for encampments to be established. Because there is no other option for wildlife in the vicinity, the level of disturbance and disruption would likely be tolerated by wildlife species that use the corridor, and use of the San Diego River is not expected to decrease over time due to the project.

Vehicles on the bridge could result in avian mortality due to collisions with vehicles. Birds such as doves, barn owls, and ducks may fly in the elevation range of the bridge (i.e., 25–30 feet) and collide with vehicles. However, smaller passerine birds such as least Bell's vireo, yellow warbler, and yellow-breasted chat typically fly within smaller distances in the tree canopy and understory and are less likely to fly over the bridge and collide with vehicles. Least Bell's vireo capture insects through foliage gleaning or hover-gleaning mid-air; they have been documented foraging below 4 meters (13 feet) (Salata 1983) and between 3 and 6 meters (9.8 feet and 22.8 feet) (Miner 1989).

Long-term indirect impacts to wildlife movement would be **potentially significant** absent mitigation (Impact BIO-19).

Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The lead agency is a state agency; therefore, it is not subject to the policies and ordinances set forth by local agencies such as the City or County of San Diego. The City does not have a tree protection policy or other ordinance that would apply to natural habitat such as is present in the project work area. Deviations to the wetland regulations in LDC Section 143.0141(b) may be granted for development that is located outside of the Coastal Overlay Zone and qualifies under either the Essential Public Project Option, the Economic Viability Option, or the Biologically Superior Option according to LDC Section 143.0510(d). The Fenton Parkway Bridge is a linear infrastructure project identified in the Mission Valley Community Plan Circulation Element as a proposed roadway connection, and thus qualifies as an Essential Public Project.

Therefore, the project would not conflict with local policies and ordinances, and **no impact** would occur.

Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, either within the MSCP area or in the surrounding region?

MSCP Consistency Analysis

Compliance with MHPA Guidelines

According to the Subarea Plan, the project site is located within an urban habitat area. The Subarea Plan identifies specific guidelines for features that were incorporated into the MHPA, including the San Diego River, which are required to be implemented for take authorization of MSCP Covered Species. Guideline B15 states, "Native vegetation shall be restored as a condition of future development proposals along this portion of the San Diego River Corridor" (City of San Diego 1997).

Mitigation Measure (MM) BIO-17 requires temporarily impacted areas to be restored to their original condition and the preparation of a conceptual restoration plan outlining these restoration activities, subject to review and approval by City, including PUD and MSCP reviewers. The conceptual restoration plan shall be consistent with the long-term maintenance requirements for the City's Stadium Wetland Mitigation Site and will satisfy the requirements of MHPA Guideline B15 by restoring temporarily impacted native vegetation within the MHPA.

Compliance with the Conditions of Coverage for Impacts to Covered Wildlife Species

This subsection provides an analysis of project's compliance with the Conditions of Coverage, including Area Specific Management Directives, outlined in Appendix A of the City's MSCP Subarea Plan, for MSCP Covered Species. In addition to project-specific mitigation, the project is required to implement the conditions, as stated in Appendix A of the City's MSCP Subarea Plan, for each Covered Species proposed to be impacted. The project must demonstrate how the Conditions of Coverage (or Area Specific Management Directives) would be implemented in order for the species to be considered "covered" by the MSCP and for take authority to be issued under the City's Incidental Take Permit. Table 3.3-7 provides the Conditions of Coverage for each Covered Species that has a potential to be impacted by the project and outlines the project's compliance with each.

Table 3.3-7. Compliance with Conditions of Coverage for Impacts to Covered Wildlife Species

Covered Species	Conditions of Coverage	Project Compliance
Cooper's hawk	ASMDs must include 300-foot impact avoidance areas around the active nests, and minimization of disturbance in oak woodlands and oak riparian forests.	MM-BIO-6 requires the establishment of 500-foot avoidance buffers around raptor nests.
Western bluebird	None.	Not applicable.
Southwestern willow flycatcher	Jurisdictions must require surveys (using appropriate protocols) during the CEQA review process in suitable habitat proposed to be impacted and incorporate mitigation measures consistent with the 404(b)1 guidelines into the project. Participating jurisdictions' guidelines and ordinances, and state and federal wetland regulations will provide additional habitat protection resulting	Focused protocol surveys for southwestern willow flycatcher were conducted on the project site in 2017, 2019, and 2022 (Dudek 2017, 2019a, 2022a, 2022b). All vegetation clearing will occur between September 15 and March 15. MM-BIO-1, which requires habitat mitigation and take avoidance, and MM-BIO-2, which requires habitat mitigation, will be implemented to

Table 3.3-7. Compliance with Conditions of Coverage for Impacts to Covered Wildlife Species

Covered Species	Conditions of Coverage	Project Compliance
	in no net loss of wetlands. For new developments adjacent to preserve areas that create conditions attractive to brown-headed cowbirds, jurisdictions must require monitoring and control of cowbirds. ASMDs must include measures to provide appropriate successional habitat, upland buffers for all known populations, cowbird control and specific measures to protect against detrimental edge effects to this species. Any clearing of occupied habitat must occur between September 1 and May 1 (i.e., outside of the nesting period).	mitigate direct impacts to this species. Noise generating project activities that may disturb this species will be conducted outside of the breeding season to the extent possible. For project activities that are conducted during the breeding season, indirect impacts due to construction noise would be mitigated by implementation of MM-BIO-15, which requires noise monitoring and noise-reducing strategies/features to be utilized where possible, including but not limited to the utilization of quieter equipment, adherence to equipment maintenance schedules, installation of temporary sound barriers, or shifting construction work further from the nest. Other potential indirect impacts during construction will be mitigated by implementation of MM-BIO-8 and MM-BIO-9, requiring delineation of disturbance limits and biological monitoring, respectively. Long-term, development-related edge effects would be mitigated by implementation of MM-BIO-11, MM-BIO-13, and MM-BIO-14. which require a lighting plan, signage/barriers, and restrictions on landscape planting. MM-BIO-15, which requires initiation of a brown-headed cowbird trapping program within the project area, as necessary, would mitigate potential impacts resulting from reduced riparian habitat or cover, which could increase flycatcher susceptibility to nest parasitism by cowbirds.
coastal California gnatcatcher	ASMDs must include measures to reduce edge effects and minimize disturbance during the nesting period, fire protection measures to reduce the potential for habitat degradation due to unplanned fire, and management measures to maintain or improve habitat quality including vegetation structure. No clearing of occupied habitat within the cities' MHPAs and within the County's Biological Resource Core Areas may occur between March 1 and August 15.	MM-BIO-11, MM-BIO-13, and MM-BIO-14 require a lighting plan, signage/barriers, and restrictions on landscape planting.
Least Bell's vireo	Jurisdictions will require surveys (using appropriate protocols) during the CEQA review process in suitable habitat proposed to be impacted and incorporate mitigation	Focused protocol surveys for least Bell's vireo were conducted on the project site in 2017, 2019, and 2022 (Dudek 2017, 2019a, 2022a, 2022b). All vegetation

Table 3.3-7. Compliance with Conditions of Coverage for Impacts to Covered Wildlife Species

Covered Species	Conditions of Coverage	Project Compliance
	measures consistent with the 404(b)1 guidelines into the project. Participating jurisdictions' guidelines and ordinances and state and federal wetland regulations will provide additional habitat protection resulting in no net loss of wetlands. Jurisdictions must require new developments adjacent to preserve areas that create conditions attractive to brown-headed cowbirds to monitor and control cowbirds. ASMDs must include measures to provide appropriate successional habitat, upland buffers for all known populations, cowbird control and specific measures to protect against detrimental edge effects to this species. Any clearing of occupied habitat must occur between September 15 and March 15 (i.e., outside of the nesting period).	clearing will occur between September 15 and March 15. MM-BIO-1, which requires habitat mitigation and take avoidance, and MM-BIO-2, which requires habitat mitigation, will be implemented to mitigate direct impacts to this species. Noise generating project activities that may disturb this species will be conducted outside of the breeding season to the extent possible. For project activities that are conducted during the breeding season, indirect impacts due to construction noise would be mitigated by implementation of MM-BIO-15, which requires noise monitoring and noise-reducing strategies/features where possible, including but not limited to the utilization of quieter equipment, adherence to equipment maintenance schedules, and installation of temporary sound barriers. Other potential indirect impacts during construction will be mitigated by implementation of MM-BIO-8 and MM-BIO-9, requiring delineation of disturbance limits and biological monitoring, respectively. Long-term, development-related edge effects would be mitigated by implementation of MM-BIO-11, MM-BIO-13, and MM-BIO-14, which require a lighting plan, signage/barriers, and restrictions on landscape planting. MM-BIO-15, which requires initiation of a brown-headed cowbird trapping program within the project area, as necessary, would mitigate potential impacts resulting from reduced riparian habitat or cover, which could increase flycatcher susceptibility to nest parasitism by cowbirds.
Orange-throated whiptail	ASMDs must address edge effects.	MM-BIO-11, MM-BIO-13, and MM-BIO-14 require a lighting plan, signage/barriers, and restrictions on landscape planting.
Southwestern pond turtle	Maintain and manage a 1,500-foot area around known locations within preserve lands for the species. Within this impact avoidance area, human impacts will be minimized, non-native species detrimental to pond turtles controlled/removed and habitat restoration/enhancement measures implemented.	There are no known locations of southwestern pond turtle within the project area. There is some permanent open water, and there are recorded occurrences of the species within the San Diego River in Mission Trails Regional Park. MM-BIO-9 requires a biologist be on site to monitor all activities within native habitat to avoid impacts to native species.

Note: ASMD = Area Specific Management Directive.

Consistency Determination with MSCP

The proposed project will occur within and adjacent to the Subarea Plan (City of San Diego 1997) MHPA. Table 3.3-8 describes the Land Use Considerations and various guidelines and the proposed project's consistency with them.

Table 3.3-8. Consistency Determination with MSCP Land Use Considerations and Framework Management Plan

Compatible Land Uses MSCP Subarea Plan Section 1.4.1	Applicability	Implementation
The following land uses are considered conditionally compatible with the biological objectives of the MSCP and thus will be allowed within the City's MHPA: ▪ Passive recreation ▪ Utility lines and roads in compliance with policies described in Section 1.4.2 ▪ Limited water facilities and other essential public facilities ▪ Limited low density residential uses ▪ Brush management (Zone 2) ▪ Limited agriculture	The proposed project is for the construction of an essential public facility (Fenton Parkway Bridge), proposed where it minimizes impacts by siting the bridge where it directly connects the existing Fenton Parkway to the other side of the San Diego River. The Fenton Parkway Bridge is identified as a roadway connection in the Mission Valley Community Plan Circulation Element. For these reasons, the Fenton Parkway Bridge is a conditionally compatible land use within the MHPA.	The Fenton Parkway Bridge is identified as a roadway connection in the Mission Valley Community Plan Circulation Element and is an essential public facility as well as a road in compliance with policies described in Section 1.4.2. As such, the proposed project is considered a conditionally compatible land use pursuant to MSCP Subarea Plan, Section 1.4.1. Bridge structures (abutments, piers, bridge deck, etc.) have been designed to minimize temporary and permanent impacts to natural resources (shading, wildlife movement, native plant regrowth, etc.), consistent with the San Diego River Park Master Plan bridge design guidelines. Impacts to natural topography and sensitive biological resources are further minimized by siting the bridge where it directly connects the existing Fenton Parkway to the other side of the San Diego River.

General Planning Policies and Design Guidelines MSCP Subarea Plan Section 1.4.2	Applicability	Implementation
Roads and Utilities		
All proposed utility lines (e.g., sewer, water, etc.) should be designed to avoid or minimize intrusion into the MHPA. These facilities should be routed through developed or developing areas rather than the MHPA, where possible. If no other routing is feasible, then the lines should follow previously existing roads, easements, rights-of-way and disturbed areas, minimizing habitat fragmentation.	The proposed project includes the relocation and/or extension of existing storm drains within the MHPA. An existing 96-inch reinforced concrete pipe storm drain located near the northern terminus of the bridge would be extended south and a 54-inch storm drain located near the southern terminus of the bridge would be relocated west of the proposed south bridge abutment.	Both storm drains currently discharge directly into the San Diego River. New headwalls would be installed for both storm drains, with riprap at the outfall of the southern drain for erosion protection and energy dissipation. The storm drain modifications are necessary to accommodate storm drain outfalls into the river without impacting the bridge's structural integrity. For stormwater runoff on the bridge, because the roadway will not have shoulders, standard Caltrans Type D-1 deck drains are proposed on the bridge to minimize water flowing in traffic lanes. Drainpipes would carry water longitudinally below the bridge deck through the bridge abutments into the storm drain system, where the stormwater will be treated in accordance with water quality regulations, therefore minimizing intrusion into the MHPA. Although no wet utility extensions through the bridge cells are included as a part of the proposed project, the bridge would include 24-inch cells that could accommodate potential future wet utilities, averting the future need for utilities outside the bridge right-of-way.
All new development for utilities and facilities within or crossing the MHPA shall be planned, designed, located and constructed to minimize environmental impacts. All such activities must avoid disturbing the habitat of MSCP covered species and wetlands. If avoidance is infeasible, mitigation will be required.	The proposed project includes the installation of a new facility (i.e., the Fenton Parkway Bridge) in the MHPA. The project has been planned, designed, and sited to minimize environmental impacts. However, project activities will disturb the habitat of MSCP covered species and wetlands, which cannot be avoided due to the location of the bridge.	The proposed project would involve construction of a vehicular and pedestrian bridge. The design and construction of the approach roadways and bridge would comply with applicable City, County of San Diego, and California Department of Transportation design standards. Concrete abutments supporting bridge spans will be protected with energy dissipating riprap that will

General Planning Policies and Design Guidelines MSCP Subarea Plan Section 1.4.2	Applicability	Implementation
		be buried to allow for plant growth over the riprap. Construction of the Fenton Parkway Bridge will result in impacts to MSCP-covered species and wetlands, as described in Section 6. Implementation of mitigation measures described in Section 7, including MM-BIO-2, MM-BIO-17, and MM-BIO-18, which require compensatory habitat mitigation and restoration of temporarily impacted habitat, would mitigate for these unavoidable impacts.
Temporary construction areas and roads, staging areas, or permanent access roads must not disturb existing habitat unless determined to be unavoidable. All such activities must occur on existing agricultural lands or in other disturbed areas rather than in habitat. If temporary habitat disturbance is unavoidable, then restoration of, and/or mitigation for, the disturbed area after project completion will be required.	Staging areas are proposed outside of the MHPA in the disturbed portions of the Mission Valley River Park and an undeveloped area south of the river between Mission City Parkway and Camino Del Rio North. Staging in the area south of the river, as well as construction of the bridge in the MHPA, would include unavoidable habitat disturbance.	Temporary staging areas are proposed in the existing disturbed portions of the Mission Valley River Park and an area south of the river. Temporary impact areas around the bridge within the MHPA will be required for the construction of the bridge. Temporary and permanent impacts to habitat and the MHPA are mitigated through implementation of mitigation measures MM-BIO-2, MM-BIO-17 and MM-BIO-18, which require compensatory habitat mitigation and restoration of temporary impacts to their original condition. Additionally, MM-BIO-11 will prevent downstream sedimentation during construction.
Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/emergency access roads. Local streets should not cross the MHPA except where needed to access isolated development areas.	The Fenton Parkway Bridge is a linear infrastructure project identified in the Mission Valley Community Plan Circulation Element and is an essential public facility that is considered a conditionally compatible land use pursuant to Subarea Plan Section 1.4.1.	N/A
Development of roads should be avoided whenever feasible. If an alternative location outside the MHPA is not feasible, then the road	The project is the potential development of an essential public facility (Fenton Parkway bridge), proposed where it minimizes	The bridge structure provides a much greater openness ratio than the minimum recommended 0.8; therefore, the structure design

General Planning Policies and Design Guidelines MSCP Subarea Plan Section 1.4.2	Applicability	Implementation
must be designed to cross the shortest length possible of the MHPA in order to minimize impacts and fragmentation of sensitive species and habitat. If roads cross the MHPA, they should provide for fully- functional wildlife movement capability. Bridges are the preferred method of providing for movement, although culverts in selected locations may be acceptable. Fencing, grading and plant cover should be provided where needed to protect and shield animals, and guide them away from roads to appropriate crossings.	impacts by siting the bridge where it directly connects the existing Fenton Parkway to the other side of the San Diego River. The essential public facility is considered a conditionally compatible land use within the MHPA.	itself is not expected to affect wildlife movement ability.
Where possible, roads within the MHPA should be narrowed from existing design standards to minimize habitat fragmentation and disruption of wildlife movement and breeding areas. Roads must be located in lower quality habitat or disturbed areas to the extent possible.	The project is the potential development of an essential public facility (Fenton Parkway bridge), proposed where it minimizes impacts by siting the bridge where it directly connects the existing Fenton Parkway to the other side of the San Diego River. This direct connection is the least-impactful area to build the bridge, with the minimal amount of pilings and bank stabilization required to support the bridge.	The proposed project would involve construction of a vehicular and pedestrian bridge. The design and construction of the approach roadways and bridge would comply with applicable City, County of San Diego, and California Department of Transportation design standards. The bridge design was modified to reduce the number of lanes to two 11-foot-wide lanes rather than four lanes per the previous plan. Concrete abutments supporting bridge spans will be protected with energy dissipating riprap that will be buried to allow for plant growth over the riprap. Because the bridge structure provides a much greater openness ratio than the minimum recommended 0.8, the structure design itself is not expected to affect wildlife movement ability.
For the most part, existing roads and utility lines are considered a compatible use within the MHPA and therefore will be maintained.	This project proposes a new road through the MHPA (see above).	N/A

General Planning Policies and Design Guidelines MSCP Subarea Plan Section 1.4.2	Applicability	Implementation
Exceptions may occur where underutilized or duplicative road systems are determined not to be necessary as identified in the Framework Management Section 1.5.		
Fencing, Lighting, and Signage		
Fencing or other barriers will be used where it is determined to be the best method to achieve conservation goals and adjacent to land uses incompatible with the MHPA. For example, use chain link or cattle wire to direct wildlife to appropriate corridor crossings, natural rocks/boulders or split rail fencing to direct public access to appropriate locations, and chain link to provide added protection of certain sensitive species or habitats (e.g., vernal pools).	No permanent fencing or barriers are required or proposed. The river is already fenced in many of these areas and will be maintained in place. Temporary construction fencing will be used to demarcate the approved limits of work to avoid unanticipated impacts outside the proposed impact area.	MM-BIO-8 requires temporary installation of fencing; MM-BIO-13 requires signage and, if needed, visual barriers (e.g., berm, fence, rocks, plantings, etc.) shall be installed where appropriate to deter access from the bridge into the San Diego River.
Lighting shall be designed to avoid intrusion into the MHPA and effects on wildlife. Lighting in areas of wildlife crossings should be of low sodium or similar lighting. Signage will be limited to access and litter control and educational purposes.	Nighttime lighting may occur during portions of the construction phasing but would be limited in use, as nighttime construction work would be limited, if at all. If nighttime work occurs, lighting could impact wildlife movement in and use of the immediate vicinity.	MM-BIO-11 requires all artificial outdoor light fixtures within 100 feet of the Multi-Habitat Planning Area shall be installed so they are shielded and directed away from sensitive areas, resulting in very little light spillage over the bridge into the San Diego River. Any safety lighting required should be directed away from sensitive areas to ensure compliance with the Multiple Species Conservation Program's Land Use Adjacency Guidelines and to be in accordance with the Land Development Code Section 142.0740 (Outdoor Lighting Regulations).
Materials Storage		
Prohibit storage of materials (e.g., hazardous or toxic chemicals, equipment, etc.) within the MHPA and ensure appropriate storage per applicable regulations in any areas that may impact the MHPA, especially due to potential leakage.	SDSU would store and utilize all hazardous materials, chemicals, and substances consistent with their use and storage recommendations. No storage of these chemicals and substances would occur within the MHPA; therefore, the proposed project would not be inconsistent with the	All work will be performed in compliance with the City's Storm Water Standards – Part 2 (2018). Specifically, Project Planning (Table 5-1), Good site Management "Housekeeping" (Table 5-2), Non-Storm Water Management (Table 5-3), Erosion Control (Table 5-4), Sediment Control (Table 5-5), Run-

General Planning Policies and Design Guidelines MSCP Subarea Plan Section 1.4.2	Applicability	Implementation
	Subarea Plan's guidelines regarding hazardous substance storage in sensitive habitat areas.	on and run-off Control (Table 5-6). A storm water pollution prevention plan outlining specifics of how this project will comply with each of the above City BMP standards will be prepared to guide the contractor's activities. Examples of BMPs include limitation of in river equipment storage to a single, unvegetated and contained area, installation of drip pans beneath all equipment and the use of visqueen and fiber rolls around the work areas. These measures will prevent unintended erosion and potential spoil soil spillage into areas outside of the immediate work area, and ensure containment of any potential equipment leakage.
Mining, Extraction, and Processing Facilities		
Mining operations include mineral extraction, processing and other related mining activities (e.g., asphaltic processing). Currently permitted mining operations that have approved restoration plans may continue operating in the MHPA. New or expanded mining operations on lands conserved as part of the MHPA are incompatible with MSCP preserve goals for covered species and their habitats unless otherwise agreed to by the wildlife agencies at the time the parcel is conserved. New operations are permitted in the MHPA if: 1) impacts have been assessed and conditions incorporated to mitigate biological impacts and restore mined areas; 2) adverse impacts to covered species in the MHPA have been mitigated consistent with the Subarea Plan; and 3) requirements of other City land use policies and regulations (e.g., Adjacency Guidelines, Conditional Use Permit) have been satisfied. Existing and any newly permitted operations	The proposed project does not include any existing, new, or expanded mining operations; therefore, the proposed project would not be inconsistent with the Subarea Plan's guidelines regarding mining operations in the MHPA.	N/A.

General Planning Policies and Design Guidelines MSCP Subarea Plan Section 1.4.2	Applicability	Implementation
adjacent to or within the MHPA shall meet noise, air quality and water quality regulation requirements, as identified in the conditions of any existing or new permit, in order to adequately protect adjacent preserved areas and covered species. Such facilities shall also be appropriately restored upon cessation of mining activities.		
All mining and other related activities must be consistent with the objectives, guidelines, and recommendations in the MSCP plan, the City of San Diego's Environmentally Sensitive Lands Ordinance, all relevant long-range plans, as well as with the State Surface Mining and Reclamation Act (SMARA) of 1975.	The proposed project does not include any mining or related operations; therefore, the proposed project would not be inconsistent with this planning policy.	N/A.
Any sand removal activities should be monitored for noise impacts to surrounding sensitive habitats, and all new sediment removal or mining operations proposed in proximity to the MHPA, or changes in existing operations, must include noise reduction methods that take into consideration the breeding and nesting seasons of sensitive bird species.	The proposed project does not include any mining operations, sand removal activities, or sediment removal activities; therefore, the proposed project would not be inconsistent with the Subarea Plan's guidelines regarding proposed activities in proximity to the MHPA.	N/A.
All existing and future mined lands adjacent to or within the MHPA shall be reclaimed pursuant to SMARA. Ponds are considered compatible uses where they provide native wildlife and wetland habitats and do not conflict with conservation goals of the MSCP and Subarea Plan.	The proposed project site does not contain any existing mined lands; therefore, the proposed project would not be inconsistent with the Subarea Plan's guidelines regarding mined lands in the MHPA.	N/A.
Any permitted mining activity including reclamation of sand must consider changes and impacts to water quality, water table level, fluvial hydrology, flooding, and wetlands and habitats upstream and downstream, and provide	The proposed project does not include any permitted mining activity; therefore, the proposed project would not be inconsistent with the Subarea Plan's guidelines related to these activities.	

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adequate mitigation.		
Flood Control		
Flood control should generally be limited to existing agreements with resource agencies unless demonstrated to be needed based on a cost benefit analysis and pursuant to a restoration plan. Floodplains within the MHPA, and upstream from the MHPA if feasible, should remain in a natural condition and configuration in order to allow for the ecological, geological, hydrological, and other natural processes to remain or be restored.	The proposed project is for the construction of an essential public facility (Fenton Parkway Bridge), proposed where it minimizes impacts by siting the bridge where it directly connects the existing Fenton Parkway to the other side of the San Diego River. However, bridge construction will occur in the San Diego River floodplain.	The Fenton Parkway Bridge is an essential public facility and is considered a conditionally compatible land use within the MHPA. The direct connection design is the least-impactful area to build the bridge, with the minimal amount of pilings and bank stabilization required to support the bridge. MM-BIO-17 requires restoration of temporarily impacted habitat. In addition, concrete abutments supporting bridge spans will be protected with energy dissipating riprap that will be buried to allow for plant growth over the riprap and areas where native vegetation would be removed would be reseeded or replanted with appropriate native plant species. Implementation of these design features and measures will ensure the floodplain remains in a natural condition to the greatest extent possible.
No berming, channelization, or man-made constraints or barriers to creek, tributary, or river flows should be allowed in any floodplain within the MHPA unless reviewed by all appropriate agencies, and adequately mitigated. Review must include impacts to upstream and downstream habitats, flood flow volumes, velocities and configurations, water availability, and changes to the water table level.	No permanent berming or channelization is proposed. The proposed project would involve construction of a vehicular and pedestrian bridge, which would include man-made constraints, such as piers within the river channel and concrete seat-type abutments in the river embankments, that would constrain flows in the San Diego River.	The design and construction of the bridge would comply with applicable City, County of San Diego, and California Department of Transportation design standards. The river's low flow channel will remain in place, with water flowing relatively unobstructed through the floodplain during higher flood events. The 100-year HEC-RAS analyses show that the project will not cause adverse off-site hydraulic impacts and that it can convey the 100-year flow with several feet of freeboard (Chang Consultants 2023). Concrete abutments supporting bridge spans will be protected with

General Planning Policies and Design Guidelines MSCP Subarea Plan Section 1.4.2	Applicability	Implementation
		energy dissipating riprap that will be buried to allow for plant growth over the riprap. The bridge structure provides a much greater openness ratio than the minimum recommended 0.8 for wildlife movement. No impacts to upstream or downstream habitats are anticipated. Areas where native vegetation would be removed would be reseeded or replanted with appropriate native plant species. These restored areas would be monitored consistent with City's Stadium Wetland Mitigation Site and resource agency permit requirements. Implementation of mitigation measures described in Section 7, including MM-BIO-2, MM-BIO-17, and MM-BIO-18, which require compensatory habitat mitigation and restoration of temporarily impacted habitat, would mitigate for unavoidable impacts to habitat resulting from bridge construction. Additionally, MM-BIO-11 will prevent downstream sedimentation during construction.
No riprap, concrete, or other unnatural material shall be used to stabilize river, creek, tributary, and channel banks within the MHPA. River, stream, and channel banks shall be natural, and stabilized where necessary with willows and other appropriate native plantings. Rock gabions may be used where necessary to dissipate flows and should incorporate design features to ensure wildlife movement.	The proposed project is for the construction of an essential public facility (Fenton Parkway Bridge), proposed where it minimizes impacts by siting the bridge where it directly connects the existing Fenton Parkway to the other side of the San Diego River. However, bridge construction will require the installation of riprap in the MHPA.	The Fenton Parkway Bridge would be approximately 450 feet long, 58 feet wide, and 7 feet, 6 inches deep, and would consist of up to four spans. Bridge spans would be supported on concrete seat-type abutments in the river embankments at each end. Each abutment would be protected with energy dissipating riprap that will be buried to allow for plant growth over the riprap. Riprap will also be required at the outfall of the new southern storm drain alignment for erosion protection and energy dissipation. MM-BIO-17 requires restoration of temporarily impacted habitat.

General Planning Policies and Design Guidelines MSCP Subarea Plan Section 1.4.2	Applicability	Implementation
		Areas where native vegetation would be removed would be reseeded or replanted with appropriate native plant species.

Land Use Adjacency Guidelines MSCP Subarea Plan Section 1.4.3	Applicability	Implementation
Drainage: All new and proposed parking lots and developed areas in and adjacent to the preserve must not drain directly into the MHPA. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem processes within the MHPA.	The river's low flow channel will remain in place, with water flowing relatively unobstructed through the floodplain during higher flood events. The bridge will include drainpipes for stormwater and treat it in accordance with water quality regulations. Therefore, the work would be consistent with this policy.	For stormwater runoff on the bridge, because the roadway will not have shoulders, standard Caltrans Type D-1 deck drains are proposed on the bridge to minimize water flowing in traffic lanes. Drainpipes would carry water longitudinally below the bridge deck through the bridge abutments into the storm drain system, where the stormwater will be treated in accordance with water quality regulations.
Toxics: Land uses, such as recreation and agriculture, that use chemicals or generate by-products such as manure, that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA.	SDSU would store and utilize all hazardous materials, chemicals, and substances consistent with their use and storage recommendations. No storage of these chemicals and substances would occur within the MHPA; therefore, the proposed project would not be inconsistent with the Subarea Plan's guidelines regarding hazardous substance storage in sensitive habitat areas. Therefore, the work would not be inconsistent with this policy.	As noted above, all work will be performed in compliance with the storm water pollution prevention plan that will be prepared for this project. Vehicles and equipment will be affixed with drip pans while not in use. Temporary best management practices will be employed, including the use of visqueen and fiber rolls around the work areas to prevent erosion or spoil soil spillage into areas outside of the immediate work area, and to prevent potential leakage from the equipment.
Lighting: Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting.	Nighttime lighting may occur during portions of the construction phasing but would be limited in use, as nighttime construction work would be limited, if at all. If nighttime work occurs, lighting could impact wildlife movement in and use of the immediate vicinity.	MM-BIO-11 requires all artificial outdoor light fixtures within 100 feet of the Multi-Habitat Planning Area shall be installed so they are shielded and directed away from sensitive areas, resulting in very little light spillage over the bridge into the San Diego River. Any safety lighting required should be directed away from sensitive areas to ensure

Land Use Adjacency Guidelines MSCP Subarea Plan Section 1.4.3	Applicability	Implementation
		compliance with the Multiple Species Conservation Program's Land Use Adjacency Guidelines and to be in accordance with the Land Development Code Section 142.0740 (Outdoor Lighting Regulations).
Noise: Uses in or adjacent to the MHPA should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the MHPA. Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures should also be incorporated for the remainder of the year.	Construction-related noise will result from equipment used during construction. Operation-related noise, including noise from car traffic on the new bridge, can have the same type of impacts to wildlife. Noise measurements and on-site noise reduction techniques will be used as needed to minimize impacts to breeding areas. Therefore, the work would not be inconsistent with this policy.	MM-BIO-15 addresses short-term noise impacts. The modeled areas with potentially significant noise levels (see Figure 7) that intersect with southern cottonwood willow riparian forest in the north are within the permanent impact area; modeled noise levels do not result in additional impacts to this habitat beyond the permanent impact area.
Barriers: New development adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along the MHPA boundaries to direct public access to appropriate locations and reduce domestic animal predation.	No permanent fencing or barriers are required or proposed. The river is already fenced in many of these areas and will be maintained in place. Temporary construction fencing will be used to demarcate the approved limits of work to avoid unanticipated impacts outside the proposed impact area.	There is existing chain-link fencing along the southern portion of the river to keep people from accessing the river, and this fencing will remain after the bridge is built. MM-BIO-13 requires signage and, if needed, visual barriers (e.g., berm, fence, rocks, plantings, etc.) shall be installed where appropriate to deter access from the bridge into the San Diego River.
Invasives: No invasive non-native plant species shall be introduced into areas adjacent to the MHPA.	No landscaping or other activities that would introduce non-native plants are proposed as part of this work. Therefore, the work would not be inconsistent with this policy. Any restoration work needed will be conducted in accordance with the City's Biology Guidelines and MSCP Subarea Plan. Therefore, the work is consistent with this guideline.	MM-BIO-14 prohibits landscaping and/or restoration plans to prohibit invasive plant species as included on the most recent version of the California Invasive Plant Council California Invasive Plant Inventory for the project region.

Land Use Adjacency Guidelines MSCP Subarea Plan Section 1.4.3	Applicability	Implementation
Brush Management: New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) must be set back from slope edges to incorporate Zone 1 brush management areas on the development pad and outside of the MHPA.	The proposed project would not necessitate new brush management zones. Therefore, work would not be inconsistent with this guideline.	N/A
Grading/Land Development: Manufactured slopes associated with site development shall be included within the development footprint for projects within or adjacent to the MHPA.	Energy dissipating riprap would be required at the outfall of the new southern storm drain alignment and around the bridge abutments, within the banks of the San Diego River. All slopes and work areas are included in the development footprint. Therefore, proposed work would not be inconsistent with this policy.	Riprap installed around bridge abutments will be buried to allow for plant growth over the riprap and areas where native vegetation would be removed would be reseeded or replanted with appropriate native plant species. Impacts associated with manufactured slopes have been quantified as a part of the development footprint. The design of the bridge minimizes these impacts to the greatest extent possible and implementation of mitigation measures described in Section 7, including MM-BIO-2, MM-BIO-17, and MM-BIO-18, which require compensatory habitat mitigation and restoration of temporarily impacted habitat, would mitigate for unavoidable impacts to habitat resulting from bridge construction, including manufactured slopes.

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
Mitigation		
Mitigation, when required as part of project approvals, shall be performed in accordance with the City of San Diego Environmentally Sensitive Lands Ordinance and Biology Guidelines.	Mitigation is required to reduce some of the impacts associated with the proposed project to a less than significant level. Mitigation Measures are presented in Section 6.	Mitigation Measures presented in Section 6 outline the mitigation program to reduce impacts associated with the proposed project to below a level of significance, as required in Section B of the Land Development Manual Biology Guidelines. Implementation of these

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
		mitigation measures are consistent with the City of San Diego Environmentally Sensitive Lands Ordinance and associated Biology Guidelines as described in Section 6 and Section 7. Indirect impacts from construction-related noise will be reduced to the extent feasible, as described in MM-BIO-15, but may result in significant, unavoidable impacts.
Restoration		
Restoration or revegetation undertaken in the MHPA shall be performed in a manner acceptable to the City. Where covered species status identifies the need for reintroduction and/or increasing the population, the covered species will be included in restoration/revegetation plans, as appropriate. Restoration or revegetation proposals will be required to prepare a plan that includes elements addressing financial responsibility, site preparation, planting specifications, maintenance, monitoring and success criteria, and remediation and contingency measures. Wetland restoration/revegetation proposals are subject to permit authorization by federal and state agencies.	Vegetation within the MHPA that will be temporarily impacted by the proposed project will be restored/revegetated.	As described in MM-BIO-17, a conceptual restoration plan will be prepared to restore temporarily impacted Diegan coastal sage scrub, unvegetated channel, and southern cottonwood–willow riparian forest to their original condition. The conceptual restoration plan will be subject to review and approval by City of San Diego.
Public Access, Trails, and Recreation		
Priority 1		
1. Provide sufficient signage to clearly identify public access to the MHPA. Barriers such as vegetation, rocks/boulders or fencing may be necessary to protect highly sensitive areas. Use appropriate type of barrier based on location, setting and use. For example, use chain link or cattle wire to direct wildlife movement, and natural	The MHPA/river is already fenced in many areas around the project site; existing fencing will be maintained in place. Temporary construction fencing will be used to demarcate the approved limits of work to avoid unanticipated impacts outside the proposed impact area.	MM-BIO-8 requires temporary installation of fencing; if fencing is required within the river, it will be constructed to allow for wildlife to continue to move through the river. There is existing chain-link fencing along the southern portion of the river to keep people from accessing the river, and this fencing will remain after the bridge is built. MM-BIO-13 requires

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
rocks/boulders or split rail fencing to direct public access away from sensitive areas. Lands acquired through mitigation may preclude public access in order to satisfy mitigation requirements.		signage and, if needed, visual barriers (e.g., berm, fence, rocks, plantings, etc.) shall be installed where appropriate to deter access from the bridge into the San Diego River.
2. Locate trails, view overlooks, and staging areas in the least sensitive areas of the MHPA. Locate trails along the edges of urban land uses adjacent to the MHPA, or the seam between land uses (e.g., agriculture/habitat), and follow existing dirt roads as much as possible rather than entering habitat or wildlife movement areas. Avoid locating trails between two different habitat types (ecotones) for longer than necessary due to the typically heightened resource sensitivity in those locations.	No trails or view overlooks are proposed. Staging areas are proposed outside of the MHPA in the disturbed portions of the Mission Valley River Park and within the MHPA in an undeveloped area south of the river between Mission City Parkway and Camino Del Rio North. Staging in the area south of the river, as well as construction of the bridge in the MHPA, would include unavoidable habitat disturbance.	Temporary staging areas proposed in portions of the Mission Valley River Park are already disturbed and are outside of both the MHPA and the river channel. Temporary staging areas proposed south of the river are within the MHPA, but outside of the river channel. Temporary impacts to habitat and the MHPA associated with staging areas south of the river, along with temporary and permanent impacts required for construction of the bridge, are mitigated through implementation of mitigation measures MM-BIO-2, MM-BIO-17, and MM-BIO-18, which require compensatory habitat mitigation and restoration of temporarily impacted habitat to their original condition.
3. In general, avoid paving trails unless management and monitoring evidence shows otherwise. Clearly demarcate and monitor trails for degradation and off-trail access and use. Provide trail repair/maintenance as needed. Undertake measures to counter the effects of trail erosion including the use of stone or wood crossjoints, edge plantings of native grasses, and mulching of the trail.	No trails are proposed.	N/A.
4. Minimize trail widths to reduce impacts to critical resources. For the most part, do not locate trails wider than four feet in core areas or wildlife corridors. Exceptions are in the San Pasqual Valley where other agreements have been made, in Mission Trails Regional	No trails are proposed.	N/A.

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
Park, where appropriate, and in other areas where necessary to safely accommodate multiple uses or disabled access. Provide trail fences or other barriers at strategic locations when protection of sensitive resources is required.		
5. Limit the extent and location of equestrian trails to the less sensitive areas of the MHPA. Locate staging areas for equestrian uses at a sufficient distance (e.g., 300-500 feet) from areas with riparian and coastal sage scrub habitats to ensure that the biological values are not impaired.	No equestrian uses or trails are proposed.	N/A.
6. Off-road or cross-country vehicle activity is an incompatible use in the MHPA, except for law enforcement, preserve management or emergency purposes. Restore disturbed areas to native habitat where possible or critical, or allow to regenerate.	No off-road or cross-country vehicle activity is proposed or would occur in association with construction of the bridge.	N/A.
7. Limit recreational uses to passive uses such as birdwatching, photography and trail use. Locate developed picnic areas near MHPA edges or specific areas within the MHPA, in order to minimize littering, feeding of wildlife, and attracting or increasing populations of exotic or nuisance wildlife (opossums, raccoons, skunks). Where permitted, restrain pets on leashes.	The proposed project does not include any recreational uses or picnic tables.	N/A.
8. Remove homeless and itinerant worker camps in habitat areas as soon as found pursuant to existing enforcement procedures.	N/A.	N/A.
9. Maintain equestrian trails on a regular basis to remove manure (and other pet feces) from the trails and preserve system in order to control cowbird invasion and predation. Design and maintain trails where possible to drain into a gravel bottom or vegetated (e.g.,	N/A.	N/A.

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grass-lined) swale or basin to detain runoff and remove pollutants.		
Litter/Trash and Materials Storage		
Priority 1		
Remove litter and trash on a regular basis. Post signage to prevent and report littering in trail and road access areas. Provide and maintain trash cans and bins at trail access points.	Impacts associated with litter and trash could occur during construction and after bridge construction is complete.	During construction, MM-BIO-11 prohibits trash outside approved construction limits and MM-BIO-9 requires monitoring, which will limit trash on site and ensure covered trash receptacles are present on site. MM-BIO-13 requires signage where appropriate to deter access from the bridge into the San Diego River and prohibit littering.
Impose penalties for littering and dumping. Fines should be sufficient to prevent recurrence and also cover reimbursement of costs to remove and dispose of debris, restore the area if needed, and to pay for enforcement staff time.	N/A.	N/A.
Prohibit permanent storage of materials (e.g., hazardous and toxic chemicals, equipment, etc.) within the MHPA and ensure appropriate storage per applicable regulations in any areas that may impact the MHPA, due to potential leakage.	SDSU would store and utilize all hazardous materials, chemicals, and substances consistent with their use and storage recommendations. No storage of these chemicals and substances would occur within the MHPA; therefore, the proposed project would not be inconsistent with the Subarea Plan's guidelines regarding hazardous substance storage in sensitive habitat areas.	All work will be performed in compliance with the City's Storm Water Standards – Part 2 (2018). Specifically, Project Planning (Table 5-1), Good site Management "Housekeeping" (Table 5-2), Non-Storm Water Management (Table 5-3), Erosion Control (Table 5-4), Sediment Control (Table 5-5), Run-on and run-off Control (Table 5-6). A storm water pollution prevention plan outlining specifics of how this project will comply with each of the above City BMP standards will be prepared to guide the contractor's activities. Examples of BMPs include limitation of in-river equipment storage to a single, unvegetated and contained area, installation of drip pans beneath all equipment and the use of visqueen and fiber rolls around the work areas. These measures will prevent

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
		unintended erosion and potential spoil soil spillage into areas outside of the immediate work area, and ensure containment of any potential equipment leakage.
Keep wildlife corridor undercrossings free of debris, trash, homeless encampments, and all other obstructions to wildlife movement.	Construction of the bridge could create shaded, disturbed areas that might increase encampments and access in the river corridor. Increased human activity after bridge construction could also result in increased litter in the river,	There is existing chain-link fencing along the southern portion of the river to keep people from accessing the river, and this fencing will remain after the bridge is built. In addition, abutments will be designed to limit abutment clearance and slopes intersecting with bridge abutments will be angled to limit accessibility and the potential for encampments to be established. During construction, MM-BIO-11 prohibits trash outside approved construction limits and MM-BIO-9 requires monitoring, which will limit trash on site and ensure covered trash receptacles are present on site. MM-BIO-13 requires signage where appropriate to deter access from the bridge into the San Diego River and prohibit littering.
Priority 2		
Evaluate areas where dumping recurs for the need for barriers. Provide additional monitoring as needed (possibly by local and recreational groups on a "Neighborhood Watch" type program), and/or enforcement	N/A.	N/A.
Adjacency Management Issues		
Priority 1		
2. Enforce, prevent and remove illegal intrusions into the MHPA (e.g., orchards, decks, etc.) on an annual basis, in addition to complaint basis.	N/A.	N/A.
3.Disseminate educational information to residents adjacent to and inside the MHPA to heighten environmental awareness, and inform residents of access, appropriate plantings, construction	N/A.	N/A.

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or disturbance within MHPA boundaries, pet intrusion, fire management, and other adjacency issues.		
4.Install barriers (fencing, rocks/boulders, vegetation) and/or signage where necessary to direct public access to appropriate locations.	No permanent fencing or barriers are required or proposed. The MHPA/river is already fenced in many areas around the project site; existing fencing will be maintained in place. Temporary construction fencing will be used to demarcate the approved limits of work to avoid unanticipated impacts outside the proposed impact area.	There is existing chain-link fencing along the southern portion of the river to keep people from accessing the river, and this fencing will remain after the bridge is built. MM-BIO-13 requires signage and, if needed, visual barriers (e.g., berm, fence, rocks, plantings, etc.) shall be installed where appropriate to deter access from the bridge into the San Diego River.
Invasive Exotics Control and Removal		
Priority 1		
1. Do not introduce invasive non-native species into the MHPA. Provide information on invasive plants and animals harmful to the MHPA, and prevention methods, to visitors and adjacent residents. Encourage residents to voluntarily remove invasive exotics from their landscaping.	No landscaping or other activities that would introduce non-native plants are proposed as part of this work. Therefore, the work would not be inconsistent with this policy. Any restoration work needed will be conducted in accordance with the City's Biology Guidelines and MSCP Subarea Plan.	MM-BIO-14 prohibits landscaping and/or restoration plans to prohibit invasive plant species as included on the most recent version of the California Invasive Plant Council California Invasive Plant Inventory for the project region.
2. Remove giant reed, tamarisk, pampas grass, castor bean, artichoke thistle, and other exotic invasive species from creek and river systems, canyons and slopes, and elsewhere within the MHPA as funding or other assistance becomes available. If possible, it is recommended that removal begin upstream and/or upwind and move downstream/downwind to control reinvasion. Priorities for removal should be based on invasive species' biology (time of flowering, reproductive capacity, etc.), the immediate need of a specific area, and where removal could increase the habitat available for use by covered species such as the least Bell's vireo. Avoid removal activities during the reproductive	N/A.	N/A.

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
seasons of sensitive species and avoid/ minimize impacts to sensitive species or native habitats. Monitor the areas and provide additional removal and apply herbicides if necessary. If herbicides are necessary, all safety and environmental regulations must be observed. The use of heavy equipment, and any other potentially harmful or impact-causing methodologies, to remove the plants may require some level of environmental or biological review and/or supervision to ensure against impacts to sensitive species.		
Priority 2		
3. If funding permits, initiate a baseline survey with regular follow-up monitoring to assess invasion or re-invasion by exotics, and to schedule removal. Utilize trained volunteers to monitor and remove exotic species as part of a neighborhood, community, school, or other organization's activities program (such as Friends of Peñasquitos Preserve has done). If - 55 - done on a volunteer basis, prepare and provide information on methods and timing of removal to staff and the public if requested. For giant reed removal, the Riverside County multi-jurisdictional management effort and experience should be investigated and relevant techniques used. Similarly, tamarisk removal should use the Nature Conservancy's experience in the Southern California desert regions, while artichoke thistle removal should reference the Nature Conservancy's experience in Irvine. Other relevant knowledge and experience is available from the California Exotic Pest Plant Council and the Friends of Los	N/A.	N/A.

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
Peñasquitos Canyon Preserve.		
4. Conduct an assessment of the need for cowbird trapping in each area of the MHPA where cattle, horses, or other animals are kept, as recommended by the habitat management technical committee in coordination with the wildlife agencies.	N/A.	N/A.
5. If eucalyptus trees die or are removed from the MHPA area, replace with appropriate native species. Ensure that eucalyptus trees do not spread into new areas, nor increase substantially in numbers over the years. Eventual replacement by native species is preferred.	No eucalyptus trees will be removed as part of the proposed project.	N/A.
6. On a case by case basis some limited trapping of non-native predators may be necessary at strategic locations, and where determined feasible to protect ground and shrub-nesting birds, lizards, and other sensitive species from excessive predation. This management directive may be considered a Priority 1 if necessary to meet the conditions for species coverage. If implemented, the program would only be on a temporary basis and where a significant problem has been identified and therefore needed to maintain balance of wildlife in the MHPA. The program would be operated in a humane manner, providing adequate shade and water, and checking all traps twice daily. A domestic animals release component would be incorporated into the program. Provide signage at access points and noticing of adjacent residents to inform people that trapping occurs, and how to retrieve and contain their pets.	Least bell's vireo and southwestern willow flycatcher are susceptible to nest parasitism from brown-headed cowbirds. Removal of vegetation may reduce the amount of dense riparian cover available for hiding nests, which could increase the risk of brown-headed cowbird nest parasitism.	MM-BIO-16 requires initiation of a brown-headed cowbird trapping program within the project area, as necessary, to mitigate potential indirect impacts resulting from reduced riparian habitat or cover, which could increase flycatcher and/or vireo susceptibility to nest parasitism by cowbirds.

General Management Directives MSCP Subarea Plan Section 1.5.2	Applicability	Implementation
Flood Control		
Priority 1		
7. Perform standard maintenance, such as clearing and dredging of existing flood channels, during the non-breeding or nesting season of sensitive bird or wildlife species utilizing the riparian habitat. For the least Bell's vireo, the non-breeding season generally includes mid-September through mid-March.	The proposed project does not include standard maintenance of existing flood channels.	N/A.
Priority 2		
8. Review existing flood control channels within the MHPA periodically (every five to ten years) to determine the need for their retention and maintenance, and to assess alternatives, such as restoration of natural rivers and floodplains.	N/A.	N/A.

Deviations to Environmentally Sensitive Lands Regulations

Development subject to ESL Regulations ordinarily requires the City to issue a Site Development Permit in accordance with LDC Section 143.0110. If proposed development does not comply with all applicable ESL Regulations, the proposed development permit may be denied or may be granted a deviation based on specific findings made in accordance with LDC Section 143.0150 and then approved or conditionally approved. As a state agency generally exempt from local permitting requirements, SDSU will not be required to obtain a Site Development Permit from the City for the proposed project, though, pursuant to the terms of the memorandum of understanding, the City will need to make deviation findings pursuant to LDC Section 143.0150, as applicable, in order for SDSU to proceed with the proposed project.

The City's ESL Regulations, Section 143.0141(b)(5), require impacts to wetlands within an MHPA to be avoided. Per Section 143.0141(a)(5)(C), any development with impacts to wetlands is required to process a deviation in accordance with Section 143.0150(d). Deviations to the wetland regulations in Section 143.0141(b), in particular, may be granted for development that is located outside of the Coastal Overlay Zone and qualifies under either the Essential Public Project Option, the Economic Viability Option, or the Biologically Superior Option according to LDC Section 143.0150(d).

Essential Public Projects Option

The definition of an Essential Public Project provided in LDC Section 143.0510(d)(1)(B)(ii) includes linear infrastructure such as major roads and land use plan circulation element roads and facilities including bike lanes, water and sewer pipelines including appurtenances, and stormwater conveyance systems including appurtenances. The Fenton Parkway Bridge is a linear infrastructure project identified in the Mission Valley Community Plan Circulation Element as a proposed roadway connection, and thus qualifies as an Essential Public Project. It is an essential public facility, as well as a road, in compliance with policies described in Section 1.4.2 of the Subarea Plan. As such, the proposed project is considered a conditionally compatible land use pursuant to Section 1.4.1 of the Subarea Plan.

According to LDC Section 143.0510(d)(1)(A), a deviation may only be requested for an Essential Public Project where no feasible alternative exists that would avoid impacts to wetlands. There are approximately 1.23 acres of jurisdictional resources on the project site, all of which are considered wetlands under the City's jurisdiction and all of which would be impacted by the proposed project. Construction of Fenton Parkway Bridge necessarily occurs within wetlands, and no feasible alternative exists that would avoid impacts to wetlands and allow for development of the bridge.

Chapter 5 of this EIR includes an alternatives analysis. The SDBG requires analysis of a no project alternative, a wetlands avoidance alternative, and "an appropriate range of substantial wetland impact minimization alternatives." A wetlands avoidance alternative, other than the No Project (No Build Alternative), could be designed and constructed in a way that bridge components are lifted into place from the banks of the river and no equipment would be needed in the riverbed, thus avoiding wetland impacts. Examples of this type of long-span signature bridge include suspension bridges (similar to the Suspension Bridge Alternative [Section 5.4.4]), but with a longer main span, prefabricated segmental arch bridges, and cable-stay bridges. However, without placing equipment to construct the bridge within the river bottom, a larger impact area on both ends of the bridge would be necessary for temporary towers, cranes, and staging bridge segments. The roadways/intersection south of the bridge (Camino Del Rio North and Mission City Parkway) would need to be realigned and the current location of the intersection would need to be used for the abutments to support the bridge structure. On the north side of the river, the trolley line would need to be relocated and the area where multifamily residential currently exists would be impacted. This type of "lift-into-place" suspension or arch bridge would require coordination with the California Public Utilities Commission and Metropolitan Transit System, and condemnation of private property and right-of-way would be necessary.

Although this bridge design would avoid impacts to wetlands, realigning the trolley track, obtaining rights-of-way to relocate the intersection of Camino Del Rio North and Mission City Parkway, and condemning private property, including occupied multifamily housing, is not a feasible option.

Chapter 5 of this EIR does include an alternative that would minimize impacts to wetlands, the Pedestrian/Bicycle Only Alternative (Section 5.4.2), and it was determined to be the environmentally superior alternative. Under this alternative, a smaller construction footprint would be required and a reduced amount of wetlands would be impacted. However, this alternative would not fully achieve the objectives of the project, which aims to provide a vehicle crossing in this location.

Table 3.3-9 provides a summary of the proposed project's compliance with deviation requirements under the Essential Public Project Option of the LDC.

Table 3.3-9. Summary of Compliance with Wetland Deviation Requirements Under Land Development Code Essential Public Project Option

Requirement	Compliance
Project meets Essential Public Project definition as defined in Land Development Code (LDC) Section 143.0150(d)(1) and the San Diego Biology Guidelines (SDBG)	The proposed project meets the Essential Public Project definition as stated in LDC Section 143.0150(d)(1)(ii) and (iii) and the SDBG because the activities described are a linear infrastructure project identified in the Mission Valley Community Plan as a proposed connection. In addition, the project would provide a high-water crossing in eastern Mission Valley and improve emergency evacuation.
No Project Alternative does not meet project objectives	The No Project Alternative would avoid impacts to wetlands, but would not improve emergency access or provide a high-water crossing in eastern Mission Valley.
Wetlands Avoidance Alternative does not meet project objectives	Wetland avoidance alternatives are not feasible either due to the amount of infrastructure that would need to be rerouted or occupied housing that would need to be demolished in order to accommodate a bridge that did not need piers.
Wetland Impact Minimization Alternatives do not meet project objectives	The wetland impact minimization alternative (Pedestrian/Bicycle Bridge Only Alternative) would result in a smaller bridge that could not accommodate vehicle access.
Wetland impacts are minimized to the maximum extent practicable	Construction of the proposed bridge is entirely within the "no credit area" of the City's Stadium Wetland Mitigation Site, which was reserved for a bridge crossing to be created, and further minimization would not meet the project objectives allowing vehicle access.
All impacts are mitigated in accordance with SDBG Table 2a	TBD - pending the City's decision about the boundary line adjustment to the MHPA
Project does not have a significant adverse impact to the MSCP or the Vernal Pool Habitat Conservation Plan	TBD - pending the City's decision about the boundary line adjustment to the MHPA

Direct Impacts

The proposed project would result in direct impacts to the San Diego River, which is in the MHPA. Section 1.4.2, General Planning and Design Guidelines, of the Subarea Plan (City of San Diego 1997) states that "Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/emergency access roads. Local streets should not cross the MHPA except where needed to access isolated development areas." The proposed project is referenced in the Mission Valley Community Plan (adopted by the City in 2019) and is a long-sought infrastructure enhancement in the Mission Valley community as a means of connecting residents and businesses south of the San Diego River to land uses north of the river off Friars Road, including the SDSU Mission Valley development, which was approved by the Trustees of the CSU in 2020 (City of San Diego 2019). SDSU Mission Valley includes Snapdragon Stadium and will include parks, open space, and new residential, commercial, and innovation-district uses. The proposed project would facilitate an additional vehicular, bicycle, and pedestrian connection between the businesses and residential areas north and south of the San Diego River. A full analysis of the project's consistency with Sections 1.4.1, 1.4.2, 1.4.3, and 1.5.2 of the MSCP Subarea Plan are described previously. Therefore, the development of the bridge within the MHPA is consistent with the Subarea Plan and there would be **no impact** to the City or other local agencies' abilities to implement the MSCP.

Indirect Impacts

SDSU reviewed Section 1.4.2, General Planning and Design Guidelines, of Chapter 1.4, Land Use Considerations, of the Subarea Plan (City of San Diego 1997) to determine if construction of the proposed project would affect the City's ability to comply with the provisions of their Subarea Plan.

Fencing, Lighting, and Signage. Standard cobra-head light fixtures would be mounted on concrete pedestals behind the bridge barrier. Luminaire shielding may be necessary to reduce light levels in the river habitat in compliance with the MSCP's Land Use Adjacency Guidelines. There may be some light spill into the river from the City's standard fixtures. Regardless of design, additional light spill into the San Diego River and associated habitat would occur due to car headlights from traffic on the new bridge. Based on feedback received during final design, including input from the City, SDSU may adjust the specific types of light poles, arms, and luminaires to suit aesthetics, if necessary.

The bridge would span the San Diego River with 20-foot-tall, 6-foot-diameter circular concrete columns at each pier located in the river channel. The San Diego River is approximately 350 feet wide where it flows through the project site, with a low flow channel ranging from 20 feet to 40 feet wide. Given the width of the river floodplain, the columns would not present a barrier within the MHPA. Therefore, the proposed project would avoid conflicts with the Subarea Plan's barriers adjacency guidelines.

The river is fenced around most of the area where the bridge is proposed. No additional fencing is proposed, but all existing fencing would be left in place or replaced as needed during the construction activities. If needed, visual barriers (e.g., berm, fence, rocks, plantings) shall be installed where appropriate to deter access from the bridge into the San Diego River.

Materials Storage. SDSU would store and utilize all hazardous materials, chemicals, and substances consistent with their use and storage recommendations. No storage of these chemicals and substances would occur within the MHPA; therefore, the proposed project would not be inconsistent with the Subarea Plan's guidelines regarding hazardous substance storage in sensitive habitat areas.

Mining or Extraction. The proposed project would not involve any type of mining or extraction activity, so no inconsistency with the Subarea Plan's mining and extraction policies would occur.

Flood Control. The San Diego River serves as a natural outlet for stormwater runoff from the surrounding areas. Table 3.3-8 describe the project's consistency with the "Flood Control" condition in Section 1.4.2 of the MSCP Subarea Plan. Specifically, the direct connection design is the least-impactful area to build the bridge, with the minimum amount of pilings and bank stabilization required to support the bridge. The river's low flow channel would remain in place, with water flowing unobstructed through the floodplain during higher flood events. Concrete abutments supporting bridge spans would be protected with energy dissipating riprap that would be buried to allow for plant growth over the riprap, and areas where native vegetation would be removed would be reseeded or replanted with appropriate native plant species. Implementation of these design features and measures would ensure the floodplain remains in a natural condition to the greatest extent possible. The 100-year HEC-RAS analyses show that the project would not cause adverse off-site hydraulic impacts and that it could convey the 100-year flow with several feet of freeboard (Chang Consultants 2023).

For stormwater runoff on the bridge, because the roadway would not have shoulders, standard Caltrans Type D-1 deck drains are proposed on the bridge to minimize water flowing in traffic lanes. Drainpipes would carry water longitudinally below the bridge deck through the bridge abutments into the storm drain system, where the stormwater would be treated in accordance with water quality regulations. There would be **no long-term indirect impacts** associated with altered hydrology.

Land Use Adjacency Guidelines. SDSU also reviewed Section 1.4.3, Land Use Adjacency Guidelines, of Chapter 1.4, Land Use Considerations, of the City's MSCP Subarea Plan. Similar to the guidelines above, Section 1.4.3 outlines the City's policies related to eight land development considerations: drainage, toxics, lighting, noise, barriers, invasive species, brush management, and grading/land development. An analysis of consistency with each provision is provided to ensure that the proposed project does not hinder the City's ability to meet the requirements of their Subarea Plan.

Drainage. Because the roadway would not have shoulders, standard Caltrans Type D-1 deck drains are proposed on the bridge to minimize water flowing in traffic lanes. Drainpipes would carry water longitudinally below the bridge deck through the bridge abutments into the storm drain system, where the stormwater would be treated in accordance with water quality regulations. Therefore, the proposed project would not be inconsistent with the City's drainage guidelines in Section 1.4.3 of the Subarea Plan.

Toxics. Landscaping has not been finalized; however, only plants that do not need fertilizers would be used in the landscape palette. Additionally, no herbicides or pesticides would be used in the landscaped areas. Therefore, the proposed project would not be inconsistent with the City's drainage guidelines in Section 1.4.3 of the Subarea Plan.

Lighting. Standard cobra-head light fixtures would be mounted on concrete pedestals behind the bridge barrier. Luminaire shielding may be necessary to reduce light levels in the river habitat in compliance with the MSCP's Land Use Adjacency Guidelines. There may be some light spill into the river from the City's standard fixtures. Regardless of design, additional light spill into the San Diego River and associate habitat would occur due to car headlights from traffic on the new bridge. Based on feedback received during final design, including input from the City, SDSU may adjust the specific types of light poles, arms, and luminaires to suit aesthetics, if necessary.

Noise. The City requires uses adjacent to the MHPA be designed to minimize noise impacts. The San Diego River is located in the MHPA. The measured ambient noise levels within the San Diego River near the project area and riparian vegetation adjacent to Fenton Parkway ranged from 51 dBA L_{eq} to 64 dBA L_{eq} (Dudek 2023). Some of these measured levels are higher than the 60 dBA hourly L_{eq} threshold typically used for analyzing impacts to special-status species, such as least Bell's vireo and coastal California gnatcatcher. The predicted "with project" traffic noise levels for the project area in 2035 (the worst-case traffic noise scenario for the project) range from 55 dBA L_{eq} to 72 dBA L_{eq} (Dudek 2023). Dudek analyzed two scenarios to determine if there would be significant impacts to habitat for special-status species: (1) areas that currently have noise levels averaging less than 60 dBA L_{eq} that would exceed 60 dBA L_{eq} under the modeled noise levels in 2035 and (2) areas where the change between the current average noise levels and modeled noise levels in 2035 exceeds 3 dBA L_{eq}. These areas are depicted on Figure 3.3-3. The height of the bridge (20 feet) from the ground and the walls of the bridge (7.5 feet) create a scenario where noise levels modeled approximately 2 meters from the ground (with 2035 levels) are almost always less than 60 dBA L_{eq} within the San Diego River. Where higher, the existing ambient conditions are generally higher than 60 dBA Leq at current noise levels; birds in these areas have likely adapted to the higher noise levels through increasing their own vocalization levels (Caltrans 2016).

Vegetation removal would occur outside of the nesting season; however, after the vegetation is removed, some project activities may occur during the nesting season. If these activities occur during the nesting season, pre-construction surveys (see Section 3.3.7, Mitigation Measures) would be conducted to determine the presence of sensitive wildlife in adjacent habitat. Construction would follow the guidelines outlined in these mitigation measures to minimize impacts to sensitive wildlife that may be in the riparian areas to a level below significance.

Barriers. The river is fenced around most of the area where the bridge is proposed. No additional fencing is proposed, but all existing fencing would be left in place or replaced as needed during the construction activities. If needed, visual barriers (e.g., berm, fence, rocks, plantings) shall be installed where appropriate to deter access from the bridge into the San Diego River. The bridge would span the San Diego River with 20-foot-tall, 6-foot-diameter circular concrete columns at each pier located in the river channel. The San Diego River is approximately 350 feet wide where it flows through the project site, with a low flow channel ranging from 20 feet to 40 feet wide. Given the width of the river floodplain, the columns would not present a barrier within the MHPA. Therefore, the proposed project would avoid conflicts with the Subarea Plan's barriers adjacency guidelines.

Invasives. The landscaping plan has not been finalized; however, only plants that do not need fertilizers would be used in the landscape palette. Additionally, no herbicides or pesticides would be used in the landscaped areas. Any landscaping would consist of native plant species where possible and shall not include any plants included on the most recent version of the California Invasive Plant Council's California Invasive Plant Inventory for the project region. Therefore, the proposed project would be consistent with the Subarea Plan's objectives for invasive species avoidance.

Brush Management. No brush management is required.

Grading/Land Development. All grading and land development work that is necessary for the proposed project would be contained within the project impact footprint as described above in the impact evaluation for biological resources. Therefore, the proposed project would be consistent with this provision of the City's Subarea Plan.

Because SDSU is not subject to the policies and ordinances set forth by the MSCP and the proposed project demonstrates consistency with the Land Use Considerations and Land Use Adjacency Guidelines, there would be **no impact** to the City or other local agencies' abilities to implement the MSCP.

3.3.5 Cumulative Impacts

Would the proposed project result in cumulative impacts related to biological resources?

Sensitive Wildlife and Plant Resources

Cumulative projects associated with the development of the SDSU Mission Valley Campus Master Plan Project may result in direct and indirect impacts to sensitive wildlife and plant resources and their habitats in and around Mission Valley. However, as analyzed in the Final Environmental Impact Report prepared for the SDSU Mission Valley Campus Master Plan (Dudek 2020), any impacts from these projects would need to be mitigated in order to avoid cumulative impacts. Any impacts to listed wildlife and plant resources and their habitat would be regulated by USFWS and/or CDFW, which require mitigation to offset such impacts. Cumulative projects associated with the development of the Purple Line by Metropolitan Transit System and any planned improvements to Caltrans-owned/operated transportation infrastructure, such as I-8 or I-15, may result in direct and indirect impacts to sensitive wildlife and plant resources and their habitats in and around Mission Valley.

With the exception of projects proposed by state agencies such as Caltrans, special districts, or other regional agencies such as the San Diego County Water Authority or Metropolitan Transit System, all remaining cumulatively considerable projects listed in Table 3.0-1, Cumulative Projects, are reviewed and approved by the City. During the City's entitlement review process, all projects are designed to be consistent with the City's regional HCP, which ensures that cumulative impacts to plant, wildlife, and habitat resources as a result of development are minimized. As outlined above, approximately 20 years ago, the San Diego MSCP was established as a regional habitat conservation program to help facilitate planned regional development while at the same time establishing a regional preserve system for the long-term benefit of the region's diverse plant and wildlife resources. In 1998, the City adopted their MSCP Subarea Plan, which covers the Mission Valley Community Plan Area, including the stadium site. The City's Subarea Plan implements the regional MSCP and through the City's development review process, all projects subject to the MSCP, including many of those listed in Table 3.0-1, must be consistent with and contribute to the establishment of this regional preserve system. The City enforces development siting restrictions, limits direct impacts to designated preserve areas, ensures compliance with adjacency and buffering techniques to reduce indirect impacts, and provides for the long-term management of the established preserves. Because all past, present and probable future projects subject to the MSCP must comply with the City's Subarea Plan, cumulative impacts to biological resources from these related projects would be **less than significant**.

As stated above, the proposed project is located in the San Diego MSCP and within the City's Subarea Plan Area. Direct avoidance of potential sensitive habitat resources, avoidance and minimization measures, and project design features that would reduce the potential for indirect impacts are consistent with the MSCP and City's Subarea Plan. Due to this consistency with these regional planning tools, the project would not result in cumulative impacts to plant and wildlife resources.

Sensitive Wetland and Riparian Resources

Included in the minor habitat and vegetation impacts described above, the proposed project would impact jurisdictional wetlands and waters of the United States, and thus, would be required to comply with wetlands mitigation requirements pursuant to Sections 401 of the state Clean Water Act, Section 404 of the federal CWA, and Section 1600 of the California Fish and Game Code. These regulations are all designed to ensure the "no net loss" of wetlands and riparian resources. As outlined in MM-BIO-15, these impacts would be mitigated and would result in no net loss of habitat. Similarly, cumulative projects may impact wetlands and waters of the United States in and around the Mission Valley area and within the greater San Diego River watershed. All of these resources are protected under Section 401 of the state Clean Water Act, Section 404 of the federal CWA, and Section 1600 of the California Fish and Game Code. Any project or agency that would impact these resources would need to mitigate for impacts to these resources at similar ratios as the proposed project. Accordingly, there would be no net loss of wetland resources from cumulatively considerable projects, and such cumulative impacts would be less than significant.

In summary, all of the project's impacts would be mitigated pursuant to state and federal wetland regulations and would be consistent with the mitigation and avoidance and minimization measures spelled out in the City's Subarea Plan. When combined with existing and probable future projects within the cumulative project site, the proposed project would result in **less than significant** cumulative impacts to sensitive biological resources.

3.3.6 Summary of Impacts Prior to Mitigation

Direct impacts to suitable habitat for least Bell's vireo, southwestern willow flycatcher, and coastal California gnatcatcher would be potentially significant (Impacts BIO-1, BIO-2, and BIO-3); direct impacts to suitable habitat for Cooper's hawk, yellow-breasted chat, and yellow warbler would be potentially significant (Impact BIO-4); and direct impacts to suitable habitat for southern California legless lizard, western pond turtle, two-striped gartersnake, and western spadefoot toad would be potentially significant (Impact BIO-5).

Potentially significant impacts to maternity bat roosts, if present, could occur from the removal of suitable riparian trees on site (Impact BIO-6).

Potentially significant impacts to Crotch's bumble bee could occur during removal of suitable habitat on site (Impact BIO-7).

Direct impacts to nesting birds protected under the MBTA could occur during construction (Impact BIO-8).

Direct impacts to two special-status plants, San Diego County viguiera and San Diego marsh-elder, could occur during construction (Impact BIO-9).

Potentially significant short-term and long-term indirect impacts to special-status plant and sensitive natural communities could occur during construction (Impacts BIO-10 and BIO-11).

Potentially significant short-term and long-term indirect impacts to special-status wildlife species could occur during construction (Impacts BIO-12 and BIO-13).

Potentially significant temporary and permanent direct impacts to Diegan coastal sage scrub, unvegetated channel, and southern cottonwood-willow riparian forest could occur during construction (Impact BIO-14).

Potentially significant temporary and permanent direct impacts to federally and state-regulated wetlands/riparian areas and non-wetland waters could occur during construction (Impact BIO-15).

Potentially significant short-term and long-term indirect impacts to federally and state-regulated wetlands/riparian areas and non-wetland waters could occur (Impacts BIO-16 and BIO-17).

Potentially significant short-term and long-term indirect impacts to native habitat, including the San Diego River, could occur (Impacts BIO-18 and BIO-19).

3.3.7 Mitigation Measures

The following mitigation measures would reduce the potential for direct and indirect impacts on special-status plant and wildlife species, sensitive natural communities, jurisdictional waters, and wildlife corridors by ensuring that special-status resources would be avoided to the extent possible and compensatory mitigation provided to address significant impacts. Implementation of the following mitigation measures would reduce all potentially significant impacts to a less-than-significant level, with the exception of Impact BIO-12, as described in Section 3.3.8, Level of Significance After Mitigation.

MM-BIO-1 Listed Species Take Avoidance. Based on observations of least Bell's vireo (*Vireo bellii pusillus*), riparian habitat on site is considered occupied. Southwestern willow flycatcher (*Empidonax traillii extimus*) and coastal California gnatcatcher (*Polioptila californica californica*) are not currently occupying the proposed impact areas; however, there is suitable habitat within the project site for these species. Habitat impacts will be mitigated at a 3:1 mitigation ratio as specified in MM-BIO-2 or as determined through the consultation process with U.S. Fish and Wildlife Service (USFWS) (if required). Take authorization may be obtained through the federal Section 7 Consultation or Section 10 and state 2081 incidental take permit requirements. California State University/San Diego State University or its designee shall comply with any and all conditions, including pre-construction surveys, that USFWS and/or California Department of Fish and Wildlife may require for take of these species pursuant to the federal Endangered Species Act and/or California Endangered Species Act.

To avoid take of least Bell's vireo and/or southwestern willow flycatcher, seasonal avoidance or pre-construction surveys will be conducted as follows unless USFWS authorizes a deviation from those protocols:

1. Clearing and grubbing in or within 500 feet (152.40 meters) of least Bell's vireo habitat will occur from September 16 (or sooner if a USFWS-approved project biologist demonstrates to the satisfaction of the USFWS and U.S. Army Corps of Engineers [Agencies] that all nesting is complete) to March 14 to avoid the least Bell's vireo breeding season. If project construction cannot be restricted to outside of the vireo breeding season, construction noise monitoring will be provided as detailed below.
2. To minimize potential adverse impacts to least Bell's vireo from construction-related noise, construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) within 500 feet of occupied habitat will be timed to occur outside of the breeding season if possible. If construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) within 500 feet of occupied habitat must occur during the breeding season, construction-related noise within the occupied habitat areas will not exceed 60 A-weighted decibels (dBA) equivalent continuous sound level (L_{eq}) (1 hour) or pre-construction ambient noise levels, whichever is greater, during the breeding season, when feasible. To the extent feasible, on-site noise reduction techniques shall be implemented to minimize construction noise levels so they do not exceed 60 dBA L_{eq} hourly equivalent noise level or the ambient noise level, whichever is higher at the nest location. If there are signs of disturbance, noise reduction techniques shall be implemented and may include constructing a sound barrier, utilization of quieter equipment, adherence to equipment maintenance schedules, installation of temporary sound barriers, or shifting construction work further from the nest.
3. To the extent feasible, construction noise levels at a least Bell's vireo nest will be kept below 60 dBA L_{eq}, or pre-construction ambient noise levels, whichever is higher, from 5:00 a.m. to 11:00 a.m. during the peak nesting period of March 15–September 15, for the least Bell's vireo. For the balance of the day/season, the noise levels at the nest will not exceed 60 dBA averages, or pre-construction ambient noise levels (whichever is higher), over a 1-hour period on an A-weighted dBA (i.e., 1 hour L_{eq}/dBA).

4. The USFWS-approved project biologist will be on site during initial clearing and grubbing of least Bell's vireo habitat and construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) within 500 feet (152.40 meters) of least Bell's vireo habitat, to ensure compliance with all conservation measures. The project biologist will be familiar with the habitats, plants, and wildlife along the San Diego River to ensure that issues relating to biological resources are appropriately and lawfully managed. The project biologist will perform the following duties:
    a. Perform a minimum of three surveys, on separate days, to determine the presence of least Bell's vireo nest building activities, egg incubation activities, or brood rearing activities within 500 feet (152.40 meters) of construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) proposed during the least Bell's vireo breeding season. The surveys will begin a maximum of 7 days prior to project construction and one survey will be conducted the day immediately prior to the initiation of work. Additional surveys will be done once a week during project construction in the breeding season. These additional surveys may be suspended as approved by the Agencies. The Applicant will notify the Agencies at least 7 days prior to the initiation of surveys and within 24 hours of locating any vireo.
    b. If an active least Bell's vireo nest is found within 500 feet (152.40 meters) of construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities), the project biologist shall flag and map the nest location and 500-foot avoidance buffer on the construction plans and provide the information to the construction supervisor and any personnel working near the nest buffer. A qualified biological monitor shall monitor the nest(s) for any signs of disturbance. Any signs of disturbance to the bird shall be documented, and noise reduction techniques triggered if applicable. To the extent feasible, on-site noise reduction techniques shall be implemented to ensure that construction noise levels do not exceed 60 dBA L_{eq} or the ambient noise level, whichever is higher at the nest location. If there are signs of disturbance, noise reduction techniques shall be implemented and may include constructing a sound barrier or shifting construction work further from the nest.
    c. Be on site during all construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) in least Bell's vireo habitat to be impacted or within 500 feet (152.40 meters) of least Bell's vireo habitat to be avoided.
    d. Halt work, if necessary, and confer with the Agencies to ensure the proper implementation of species and habitat protection measures. The project biologist will report any violation to the Agencies within 24 hours of its occurrence.
    e. Submit weekly letter reports (including photographs of impact areas) via regular or electronic mail (email) to the Agencies during clearing of vireo habitat and/or project construction within 500 feet (152.40 meters) of avoided habitat. The weekly reports will document that authorized impacts were not exceeded, document any project-related activities within 500 feet (152.40 meters) of active least Bell's vireo nests, and document general compliance with all conditions. The reports will also outline the duration of vireo monitoring, the location of construction activities, the type of construction that occurred, and equipment used. These reports will specify numbers, locations, and sex of vireos (if present); observed vireo behavior (especially in relation to construction activities); and

remedial measures employed to avoid, minimize, and mitigate impacts to vireos. Raw field notes should be available upon request by the Agencies.

f. Submit a final report to the Agencies within 60 days of project completion that includes as-built construction drawings with an overlay of habitat that was impacted and avoided, photographs of habitat areas that were to be avoided, and other relevant summary information documenting that authorized impacts were not exceeded and that general compliance with all conditions of this biological opinion was achieved.

Measures to protect coastal California gnatcatcher are outlined in MM-BIO-3.

Documentation: A Biological Opinion and Incidental Take Permit shall be issued by USFWS and the California Department of Fish and Wildlife prior to clearing and grubbing of habitat within the San Diego River.

Timing: Prior to approval of any grading plans and issuance of any grading or construction permits.

Monitoring: The USFWS-approved project biologist will be on site during the activities specified in condition 4 above.

Reporting: Submit a final report to the Agencies within 60 days of project completion as described in condition 4(f) above.

MM-BIO-2 Habitat Mitigation. Temporary and permanent impacts to southern cottonwood–willow riparian forest will be mitigated at a 3:1 mitigation ratio, and those to non-vegetated channel will be mitigated at a 1:1 or 2:1 mitigation ratio, as determined during the permitting process (see MM-BIO-17). Additionally, temporary and permanent impacts to Baccharis-dominated Diegan coastal sage scrub and restored Diegan coastal sage scrub shall be mitigated at a minimum of 1.5:1 mitigation ratio. Conservation of habitat shall be by land acquisition, off-site creation and/or enhancement, and/or purchase of appropriate credits at an approved mitigation bank in San Diego County. If required, any invasive plant removal shall be completed using hand equipment, and removal will be completed outside of the nesting bird season. If invasive removal cannot be completed outside of the nesting bird season, pre-work surveys shall be conducted per the nesting bird survey noted in MM-BIO-6. If off-site creation and/or enhancement is done, the California State University/San Diego State University or its designee shall prepare a conceptual mitigation plan outlining the enhancement/restoration of these communities and implement the plan, including monitoring and maintenance, for a period of at least 5 years. The conceptual mitigation plan shall be reviewed and approved by City of San Diego, including PUD and MSCP reviewers. If applicable, the mitigation land would be managed by an approved land manager through a non-wasting endowment.

The mitigation habitat shall be appropriate habitat for special-status amphibians, reptiles, mammals, invertebrates, and birds with potential to occur on site.

Documentation: The mitigation plan and/or proof of purchase of credits from a mitigation bank shall be provided to the City of San Diego, Wildlife Agencies (U.S. Fish and Wildlife Service and California Department of Fish and Wildlife), Regional Water Quality Control Board, and U.S. Army Corps of Engineers.

Timing: Prior to approval of any grading plans and issuance of any grading or construction permits.

MM-BIO-3 Coastal California Gnatcatcher Survey**.** Suitable habitat for coastal California gnatcatcher shall not be cleared between February 15 and August 31 (or sooner if a biologist demonstrates to the satisfaction of the U.S. Fish and Wildlife Service that all nesting is complete). Prior to the initiation of vegetation clearing activities outside of the nesting season, a biologist will perform a minimum of three focused surveys, on separate days, to determine the presence of gnatcatchers in the project impact footprint and suitable habitat within 500 feet of the impact area where access is granted. Surveys will begin a maximum of 7 days prior to performing vegetation clearing/grubbing and one survey will be conducted the day immediately prior to the initiation of clearing/grubbing. If any gnatcatchers are found within the project impact footprint, the biologist will direct construction personnel to begin vegetation clearing/grubbing in an area away from the gnatcatchers. It will be the responsibility of the biologist to ensure that gnatcatchers are not in the vegetation to be cleared/grubbed by flushing individual birds away from clearing/grubbing. The biologist will also record the number and location of gnatcatchers disturbed by vegetation clearing/grubbing.

Documentation: The biologist shall submit a 15-day notification letter to the U.S. Fish and Wildlife Service prior to conducting the surveys.

Timing: Surveys will begin a maximum of 7 days prior to performing vegetation clearing/grubbing and one survey will be conducted the day immediately prior to the initiation of clearing/grubbing.

Reporting: The biologist shall submit a report to the City of San Diego documenting the methods and results of the survey prior to clearing/grubbing activities, as well as to the U.S. Fish and Wildlife Service within 45 days of completing the surveys.

MM-BIO-4 Bat Surveys and Roost Avoidance or Exclusion**.** Prior to the removal of riparian trees that could support roosting bats, a bat biologist shall survey the areas that could provide suitable roosting habitat for bats to confirm they contain no potential maternity roosts. If a potential maternity roost is present, the following measures shall be implemented to reduce the potential impact to special-status bat species to a less-than-significant level:

1. Maternity Roosting Season Avoidance. All proposed demolition activities, including bat roost exclusion, should occur outside the general bat maternity roosting season of March through August to reduce any potentially significant impact to maternity roosting bats. If the maternity roosting season cannot be avoided, then roost exclusion can occur outside the maternity roosting season (September through February) to exclude bats from the demolition area prior to the start of demolition during the maternity roosting season.

2. Roost Exclusion. Roost exclusion must only occur during the time when bats are most active (early spring or fall) to increase the potential to exclude all bats from roosts and minimize the potential for a significant impact to occur by avoiding the maternity roosting season. The primary exit points for roosting bats will be identified, and all secondary ingress/egress locations will be covered with a tarp or wood planks to prevent bats from leaving from other locations. The primary exit point will remain uncovered to allow exclusion devices to be installed. Exclusion devices will consist of a screen (poly netting, window screen, or fiberglass screening) with mesh 1/6 of an inch or smaller, installed at the top of the roost location and sealed along the sides and passing 2 feet below the bottom of the primary exit point. The exclusion devices will be installed at night to increase the potential that bats have already left the roost and are less likely to return. Exclusion devices will be left in place for a 1-week period to ensure that any remaining bats in the roost are excluded. A passive acoustic monitoring detector will also be deployed during the exclusion period in order to verify excluded species and monitor if bat activity has decreased during the exclusion period. Periodic monitoring during the exclusion period should also be conducted to observe if any bats are still emerging from additional areas on the project site, and an active monitoring survey conducted on the final night of exclusion to ensure that no bats are emerging and determine that exclusion has been successful. Any continued presence of roosting bats will require an adjustment to the exclusion devices and schedule. The exclusion devices may remain in place until the start of tree removal activities. If any bats are found roosting in any proposed tree removal areas prior to clearing, additional exclusion will be required and will follow the same methodology described in this mitigation measure.

Documentation/Reporting: The biologist shall submit a report to the City of San Diego documenting the methods and results of the surveys prior to clearing/grubbing activities.

Timing: Surveys will be completed no more than one week prior to vegetation clearing/grubbing.

MM-BIO-5 Pre-Construction Survey for Crotch's Bumble Bee and Take Avoidance. If ground-disturbing activities occur outside of the overwintering season, a pre-construction survey for Crotch's bumble bee (*Bombus crotchii*) shall occur within the construction area between February and October prior to the start of construction activities. Crotch's bumble bee is a habitat generalist, ground-nesting bee. Surveys and other relevant recommendations will be in accordance with the most recent protocol available at the time of the surveys. The survey shall focus on detecting nests for Crotch's bumble bee within the construction area. If active nests of Crotch's bumble bee are present, an appropriate no disturbance buffer zone should be established around the nest to reduce the risk of disturbance or accidental take.

If active nests cannot be avoided, an Incidental Take Permit may be needed and mitigation for direct impacts to Crotch's bumble bee will be fulfilled through compensatory mitigation at a minimum 1:1 nesting habitat replacement of equal or better functions and values to those impacted by the project, or as otherwise determined through the Incidental Take Permit process. Mitigation will be accomplished either through off-site conservation or through a California Department of Fish and Wildlife (CDFW) approved mitigation bank. If mitigation is not purchased through a mitigation bank and lands are conserved separately, a cost estimate will be prepared to estimate the initial start-up costs and ongoing annual costs of management activities for the management of the conservation easement area(s) in perpetuity. The funding source will be in

the form of a maintenance fund to help the qualified natural lands management entity that is ultimately selected to hold the conservation easement(s). The endowment amount will be established following the completion of a project-specific Property Analysis Record to calculate the costs of in-perpetuity land management. The Property Analysis Record will take into account all management activities required in the Incidental Take Permit to fulfill the requirements of the conservation easement(s), which are currently in review and development.

Documentation/Reporting: The biologist shall submit a report to the City of San Diego and Wildlife Agencies (U.S. Fish and Wildlife Service and CDFW) documenting the methods and results of the surveys prior to clearing/grubbing activities.

Timing: Surveys will be completed between February and October prior to the start of construction activities.

MM-BIO-6 Nesting Bird Survey**.** Construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) that occur during the breeding season (typically February 1 through September 15) shall require a one-time biological survey for nesting bird species to be conducted within the proposed impact area and a 500-foot buffer within 72 hours prior to construction. This survey is necessary to assure avoidance of impacts to nesting raptors (e.g., Cooper's hawk [*Accipiter cooperii*]) and/or birds protected by the federal Migratory Bird Treaty Act and California Fish and Game Code, Sections 3503 and 3513. If any active nests are detected, the area shall be flagged and mapped on the construction plans and the information provided to the construction supervisor and any personnel working near the nest buffer. If occupied nests are found, then limits of construction (e.g., 250 feet for passerines to 500 feet for raptors) to avoid occupied nests shall be established by the project biologist in the field with brightly colored flagging tape, conspicuous fencing, or other appropriate barriers and signage; and construction personnel shall be instructed on the sensitivity of nest areas. A biological monitor will be present during those periods when construction activities occur near active nest areas to avoid inadvertent impacts to these nests. The project biologist may adjust the 250-foot or 500-foot setback at his or her discretion depending on the species and the location of the nest (e.g., if the nest is well protected in an area buffered by dense vegetation). However, if needed, additional qualified monitor(s) shall be provided in order to monitor active nest(s) or other project activities in order to ensure all of the project biologist's duties are completed. Once the nest is no longer occupied for the season, construction may proceed in the setback areas.

If construction activities, particularly clearing/grubbing, grading, and other intensive activities, stop for more than 3 days, an additional nesting bird survey shall be conducted within the proposed impact area and a 500-foot buffer.

Documentation/Reporting: The biologist shall submit a report to the City of San Diego documenting the methods and results of the surveys prior to clearing/grubbing activities.

Timing: Surveys will be completed within 72 hours prior to the start of construction activities during the breeding season (typically February 1 through September 15).

MM-BIO-7 Special-Status Plants. A qualified biologist will be present prior to and during construction to ensure avoidance of impacts on special-status plant species that were found on the project site during protocol plant surveys (San Diego marsh-elder [*Iva hayesiana*] and San Diego County viguiera [*Viguiera laciniata*]) by implementing one or more of the following, as appropriate, per the biologist's recommendation:

1. Flag the population or natural community areas to be protected
2. Allow adequate buffers
3. Time construction or other activities during dormant and/or non-critical life cycle periods

For unavoidable impacts to special-status plant species, compensatory mitigation may be required based on recommendations of the qualified biologist. If deemed necessary based on the type and extent of special-status plant populations affected, compensatory mitigation will entail one of the following:

1. The protection, through land acquisition or a conservation easement, of a population of equal or greater size and health. Individual plants lost shall be mitigated at a minimum 1:1 ratio, considering acreage as well as function and value.
2. If it is not feasible to acquire and preserve a known population of a special-status plant to be impacted, suitable unoccupied habitat capable of supporting the species will be acquired and used to create a new population. For population creation, the following considerations will also be met:
    i. Prior to unavoidable and permanent disturbance to a population of a special-status plant species, propagules shall be collected from the population to be disturbed. This may include seed collection or cuttings, and these propagules will be used to establish a new population on suitable, unoccupied habitat as described above. Transplantation may be attempted but will not be used as the primary means of plant salvage and new population creation.
    ii. Creation of new populations will require identifying suitable locations and researching and determining appropriate and viable propagation or planting techniques for the species. It will also require field and literature research to determine the appropriate seed sampling techniques and harvest numbers for acquisition of seed from existing populations.
    iii. Compensatory and preserved populations will be self-producing. Populations will be considered self-producing when:
        a. Plants reestablish annually for a minimum of 5 years with no human intervention such as supplemental seeding; and
        b. Reestablished and preserved habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types in the project vicinity.
        c. If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures will be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term

management requirements, success criteria such as those listed above, and other details, as appropriate, to target the preservation of long-term viable populations.

Documentation/Reporting: The biologist shall submit a report to the City of San Diego documenting the methods and results of the surveys prior to clearing/grubbing activities.

Timing: Surveys will be completed prior to the start of construction activities.

MM-BIO-8 Temporary Installation of Fencing**.** To prevent inadvertent disturbance to areas outside the limits of grading for each phase, the contractor shall install temporary fencing, or utilize existing fencing, along the limits of grading. The fencing shall be installed to ensure it does not prevent wildlife from moving through the San Diego River channel.

Documentation: The biologist shall submit a report to the City of San Diego documenting the installation of the fencing.

Timing: Prior to clearing/grubbing activities.

Monitoring: The temporary fencing will be examined during monitoring by the project biologist.

Reporting: The temporary fencing will be described in a monitoring report prepared after the construction activities are completed.

MM-BIO-9 Construction Monitoring and Reporting. To prevent inadvertent disturbance to areas outside the limits of grading for each phase, all grading of native habitat shall be monitored by a biologist. The biological monitor(s) shall be contracted to perform biological monitoring during all clearing and grubbing activities.

The project biologist(s) also shall perform the following duties:

1. Attend the pre-construction meeting with the contractor and other key construction personnel prior to clearing and grubbing to reduce conflict between the timing and location of construction activities with other mitigation requirements (e.g., seasonal surveys for nesting birds).
2. During clearing and grubbing, the project biologist shall conduct meetings with the contractor and other key construction personnel each morning prior to construction activities in order to go over the proposed activities for the day, and for the monitor(s) to describe the importance of restricting work to designated areas and of minimizing harm to or harassment of wildlife prior to clearing and grubbing.
3. Review the construction area in the field with the contractor in accordance with the final grading plan prior to clearing and grubbing.
4. Supervise and monitor vegetation clearing and grubbing weekly to ensure against direct and indirect impacts to biological resources that are intended to be protected and preserved and to document that protective fencing is intact.
5. Flush wildlife species (i.e., reptiles, mammals, avian, or other mobile species) from occupied habitat areas immediately prior to brush-clearing activities. This does not include disturbance of nesting birds (see MM-BIO-6) or “flushing” of federally or state-listed species (i.e., least Bell’s vireo (see MM-BIO-1).

6. Periodically monitor the construction site to verify that the project is implementing the following stormwater pollution prevention plan best management practices: dust control, silt fencing, removal of construction debris, a clean work area, covered trash receptacles that are animal-proof and weather-proof, prohibition of pets on the construction site, and a speed limit of 15 miles per hour during daylight and 10 miles per hour during hours of darkness.
7. Periodically monitor the construction site after grading is completed and during the construction phase to see that artificial security light fixtures are directed away from open space and are shielded, and to document that no unauthorized impacts have occurred.
8. Keep monitoring notes for the duration of the proposed project for submittal in a final report to substantiate the biological supervision of the vegetation clearing and grading activities and the protection of the biological resources.
9. Prepare a monitoring report after the construction activities are completed that includes the following: description of the biological monitoring activities, including a monitoring log; photos of the site before, during, and after the grading and clearing activities; and a list of special-status species observed.

Timing: Monitoring responsibilities will occur prior to construction (attendance of pre-construction meeting) and during clearing, grubbing and construction activities.

Reporting: A monitoring report will be prepared and submitted to the City of San Diego after the construction activities are completed.

MM-BIO-10 Air Quality Standards. The following guidelines shall be adhered to:

1. No person shall engage in construction or demolition activity subject to this rule in a manner that discharges visible dust emissions into the atmosphere beyond the property line (or work area) for a period or periods aggregating more than 3 minutes in any 60-minute period.
2. Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall:
    a. Be minimized by the use of any of the following, or equally effective track-out/carry-out and erosion control measures that apply to the project or operation: track-out grates or gravel beds at each egress point, wheel-washing at each egress during muddy conditions, soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding, and for outbound transport trucks, using secured tarps or cargo covering, watering, or treating of transported material.
    b. Be removed at the conclusion of each workday when active operations cease, or every 24 hours for continuous operations. If a street sweeper is used to remove any track-out/carry-out, only coarse particulate matter (PM_{10}) efficient street sweepers certified to meet the most current South Coast Air Quality Management District Rule 1186 requirements shall be used. The use of blowers for removal of track-out/carry-out is prohibited under any circumstances.

Timing: These guidelines shall be adhered to during the construction activities.

Reporting: A monitoring report will be prepared and submitted to the City of San Diego after the construction activities are completed and will include documentation of adherence to these guidelines.

MM-BIO-11 Construction Documents. The Multiple Species Conservation Program (MSCP) staff at the City of San Diego shall verify that the Applicant has accurately represented the project's design in or on the construction documents and is in conformance with the City's Multi-Habitat Planning Area (MHPA) Land Use Adjacency Guidelines (LUAGs). The Applicant shall provide an implementing plan and include references on the construction documents of the following:

1. **Enhanced Temporary Stabilization Measures.** Locations shall be documented where biodegradable coir mat or other similar erosion control products will be installed to prevent sedimentation downstream of the project site during storm events. Enhanced temporary stabilization measures shall be installed prior to rain events where the flood stage is forecasted to exceed a depth of 4 feet. Predicted depths will be based on the U.S. Geological Survey Fashion Valley gage in the San Diego River, as reported here: https://water.weather.gov/ahps2/hydrograph.php?wfo=sgx&gage=fsnc1.
2. **Drainage.** Document the California Department of Transportation Type D-1 deck drains, drainpipes, and storm drain system.
3. **Toxics/Project Staging Areas/Equipment Storage.** Projects that use chemicals or generate by-products such as pesticides, herbicides, and other substances that are potentially toxic or impactive to native habitats/flora/fauna (including water) shall incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA. No trash, oil, parking, or other construction/development-related material/activities shall be allowed outside any approved construction limits. Provide a note on the Construction Documents that states: "All construction related activity that may have potential for leakage or intrusion shall be monitored by the Qualified Biologist/Owners Representative or Resident Engineer to ensure there is no impact to the MHPA."
4. **Lighting.** Lighting shall be designed to minimize light pollution within native habitat areas, while enhancing safety, security, and functionality. All artificial outdoor light fixtures within 100 feet of the MHPA shall be installed so they are shielded and directed away from sensitive areas, resulting in very little light spillage over the bridge into the San Diego River. Any safety lighting required should be directed away from sensitive areas to ensure compliance with the MSCP's LUAGs and to be in accordance with Land Development Code Section 142.0740 (Outdoor Lighting Regulations). The specific types of light poles, arms, and luminaires can be adjusted to suit aesthetics.
5. **Barriers.** The construction documents shall show any new fencing added along the boundaries of the MHPA to reduce public access, as well as any barriers required to provide adequate noise reduction where needed.
6. **Invasives.** No invasive non-native plant species shall be introduced into areas within or adjacent to the MHPA.

Documentation: On the construction documents.

Timing: Prior to approval of any grading plans and issuance of any grading or construction permits.

MM-BIO-12 Invasive Plant Species Control. To reduce potential effects of invasive species to the adjacent Stadium Wetland Mitigation Site, the applicant shall perform the following:

1. Weed control treatments shall occur prior to seed set and/or weed species reaching 12 inches in height, and will include the application of legally permitted herbicide, as well as manual and mechanical methods of removal. The application of herbicides shall comply with state and federal laws and regulations under the prescription of a Pest Control Advisor and shall be implemented by a Licensed Qualified Applicator. Herbicides shall not be applied during or within 72 hours of a forecasted measurable rain event or during high wind conditions that could cause spray drift onto native vegetation. Where manual or mechanical methods are used, plant debris shall be disposed of at a certified disposal site. The timing of the weed control treatment shall be determined for each plant species with the goal of controlling populations before they start producing seeds.
2. All straw materials used during project construction and operation shall be weed-free rice straw or other weed-free product, and all gravel and fill material shall be weed free. If straw wattles are used, they shall not be encased in plastic mesh.
3. Prior to entry to the project area for the first time, equipment must be free of soil and debris on tires, wheel wells, vehicle undercarriages, and other surfaces (a high-pressure washer and/or compressed air may be used to ensure that soil and debris are completely removed). Compliance with the provision is achieved by on-site inspection and verification or by demonstrating that the vehicle or equipment has been cleaned at a commercial vehicle or appropriate truck washing facility. In addition, the interior of equipment (cabs, etc.) shall be free of mud, soil, gravel, and other debris (interiors may be vacuumed or washed).
4. All vegetative material removed from the project site shall be transported in a covered vehicle and will be disposed of at a certified disposal site.

Timing: These guidelines shall be adhered to during the construction activities.

Reporting: A monitoring report will be prepared and submitted to the City of San Diego after the construction activities are completed and will include documentation of adherence to these guidelines.

MM-BIO-13 Signage and Barriers**.** To prevent long-term inadvertent disturbance to sensitive vegetation and species adjacent to the bridge site, signage and, if needed, visual barriers (e.g., berm, fence, rocks, plantings, etc.) shall be installed where appropriate to deter access from the bridge into the San Diego River. The signage shall state that these areas are native habitat areas, and that no trespassing is allowed. Signage shall also include prohibitions on littering.

Documentation: The locations of these signs will be shown on the Wetlands Habitat Mitigation and Monitoring Plan or similar document.

Timing: Prior to approval of any grading plans and issuance of any grading or construction permits.

MM-BIO-14 Invasive Species Prohibition**.** Final landscape and revegetation plans shall be reviewed by the project biologist and a qualified botanist to confirm there are no invasive plant species as included on the most recent version of the California Invasive Plant Council California Invasive Plant Inventory for the project region.

Documentation: Final landscape and/or revegetation plans.

Timing: Prior to approval of any grading plans and issuance of any grading or construction permits.

MM-BIO-15 Short-Term Noise. Pre-construction biological and noise surveys shall be conducted for any work between February 1 and September 15. Between 3 and 7 days prior to start of construction activities, a qualified biologist with experience in identifying least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and coastal California gnatcatcher (*Polioptila californica californica*) shall conduct a pre-construction survey for the least Bell's vireo, coastal California gnatcatcher, and, if needed, southwestern willow flycatcher to document presence/absence and the extent of habitat being occupied by the species. The pre-construction survey area for these species shall encompass all suitable habitats within the impact area, as well as suitable habitat within a 500-foot buffer of the construction activities. If active nests for any of these species are detected, a qualified biologist will conduct sound monitoring near the observed nesting position(s) to sample the pre-construction outdoor ambient noise level and document any signs of disturbance prior to construction activities. Nest locations, their horizontal distances to planned construction activities, and the measured outdoor ambient noise levels shall be provided to a qualified acoustician, who shall recommend where implementation of practical noise reduction technique(s) would yield predicted construction noise exposure at the nest location not greater than the allowable threshold of 60 A-weighted decibels equivalent continuous sound level or ambient noise level, whichever is higher. To the extent feasible, on-site noise reduction techniques shall be implemented prior to construction activity to minimize construction noise levels and meet this sound level threshold at the nest location(s). During construction activity, a qualified biologist shall monitor the observed nest locations and document any signs of disturbance, which would trigger further implementation of noise reduction techniques or alternatives that may include utilization of quieter equipment, adherence to equipment maintenance schedules, shifting construction phase timelines so that they occur outside of the breeding season, installation of temporary sound barriers, or shifting construction work further from the nest.

Timing: Surveys will be completed within 72 hours prior to the start of construction activities during the breeding season (typically February 1 through September 15).

Reporting: The biologist shall submit a report to the City of San Diego documenting the methods and results of the surveys prior to clearing/grubbing activities. Additionally, a monitoring report will be prepared and submitted to the City of San Diego after the construction activities are completed.

MM-BIO-16 Brown-Headed Cowbird Control. A brown-headed cowbird reduction program shall be initiated within the project area. The control program may be achieved by selecting one of the following methods which will be determined by SDSU or its designee:

1. Fair share funding into the San Diego River Endowment Fund (managed by the San Diego Foundation) or other program whose primary purpose is to provide funds to support work of U.S. Fish and Wildlife Service, California Department of Fish and Game, or other governmental or not-for-profit environmental organization for exotic species control, brown-headed cowbird trapping, least Bell's vireo monitoring and other activities to benefit the least Bell's vireo. The exact financial contribution amount will be negotiated with the USFWS during the Incidental Take Permit processing but should cover the cost of cowbird control for the area 0.3 miles downstream and 0.3 miles upstream of the bridge for five years after the bridge has been constructed. Should this option be selected, payment of the negotiated fee shall occur prior to the commencement of construction.
2. Establishment *of a trapping program within and immediately adjacent to the bridge construction work area.* Pre-construction trapping shall begin prior to the first phase of construction to document baseline conditions. The post-construction trapping program will commence the spring after the bridge is constructed and will continue for a period of 5 years, or until such time as an alternative control method is developed, which shall then replace the trapping program through the 5-year period. If brown-headed cowbird populations have increased from baseline conditions during the 5-year trapping program, trapping (or an alternative equally effective control method) shall continue for trapping program continue for up to an additional 10 years, with the right to terminate if brown-headed cowbird populations decrease to the baseline levels or achieves another equivalent metric. If the brown-headed cowbird population decreases during the 5-year trapping program, the program will be deemed successful and trapping beyond the 5-year timeframe will no longer be necessary. The trapping program shall be based on the most currently used trapping methods. Three traps shall be set: one in the bridge construction work area, one approximately 1/3 mile upstream of the bridge work area and one 1/3 mile downstream of the bridge work area. If there are current programs in place within that distance within the 5-year trapping program, then the project-related trapping will end. If the other trapping program ends within the 5-year period, SDSU or its designee will ensure that a trapping program is conducted for the duration of the 5-year period. Trapping shall be performed between April 1 and August 1 unless 21 days without brown-headed cowbirds occurs, then trapping may end for that year.

   Yearly reporting of the trapping results shall be provided to the City and will minimally include the rationale for trap placement, number of target species, non-target species, mortalities of each, sex and age of each as able to be determined, comparison to prior trapping, and suggestions for the following year.

Documentation/Reporting: Yearly reporting of the trapping results shall be provided to the City for the duration of the trapping/control program.

Timing: Trapping shall begin the spring after the bridge has been constructed and continue for a period of 5 years (or up to an additional 10 years as described above). Trapping shall be

performed between April 1 and August 1 unless 21 days without brown-headed cowbirds occurs, then trapping may end for that year.

1. *Alternative brown-headed cowbird control program*. Given that the science is evolving on the effectiveness of brown-headed cowbird control programs, should another method of control be developed and proved equally or more effective than one of the above methods, this option could be selected. This option would need to include the same performance criteria of ensuring that the brown-headed cowbird populations would be the same or lower than the baseline (season before the bridge construction begins).

MM-BIO-17 Restore Temporary Impacts**.** Temporary impacts to Diegan coastal sage scrub, unvegetated channel, and southern cottonwood–willow riparian forest (federally and state-regulated wetlands) shall be restored to their original condition. California State University/San Diego State University or its designee shall prepare a conceptual restoration plan outlining the restoration of these communities and implement the restoration plan, including monitoring and maintenance, for a period of at least 3 years with a goal to restore temporarily impacted areas to above 80% of pre-project native cover. The conceptual restoration plan shall be reviewed and approved by City of San Diego, including PUD and MSCP reviewers, and shall be consistent with the long-term maintenance requirements for the City of San Diego Stadium Wetland Mitigation Site.

Documentation: The Habitat Mitigation and Monitoring Plans prepared for the temporary impacts to wetlands and uplands (as applicable).

Timing: Conceptual plans shall be submitted to the City of San Diego prior to approval of any grading plans and issuance of any grading or construction permits.

Monitoring: Monitoring of restoration shall occur over a period at least 3 years.

Reporting: Reporting will occur upon commencement of the mitigation installation, at the completion of mitigation installation, at the completion of the 120-day plant establishment period, and annually throughout the 3-year to 5-year monitoring effort.

MM-BIO-18 Wetland Mitigation. The overall ratio of wetland/riparian habitat mitigation shall be 3:1. Impacts shall be mitigated at a 1:1 impact-to-creation ratio by either the creation, or purchase of credits for the creation, of jurisdictional habitat of similar functions and values. An additional 2:1 enhancement-to-impact ratio shall be required to meet the overall 3:1 impact-to-mitigation ratio for impacts to wetlands/riparian habitat. Impacts to the unvegetated stream channels in the San Diego River shall occur at a 1:1 or 2:1 mitigation ratio, with a 1:1 impact-to-creation ratio. Additional mitigation for unvegetated channels will occur through preservation. Mitigation may occur as off-site enhancement and restoration, and/or purchase of credits at an approved mitigation bank.

If mitigation is proposed outside of an approved mitigation bank, a Conceptual Wetlands Mitigation and Monitoring Plan shall be prepared and implemented. The Conceptual Wetlands Mitigation and Monitoring Plan shall, at a minimum, prescribe site preparation, planting, irrigation, and a 5-year maintenance and monitoring program with qualitative and quantitative evaluation of the revegetation effort and specific criteria to determine successful revegetation.

The California State University/San Diego State University shall be responsible for the monitoring and maintenance program.

Prior to impacts occurring to U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) jurisdictional aquatic resources, California State University/San Diego State University or its designee shall obtain the following permits: USACE 404 permit, RWQCB 401 Water Quality Certification, and CDFW 1600 Streambed Alteration Agreement.

Documentation: The mitigation plan and/or proof of purchase of credits from a mitigation bank shall be provided to the City of San Diego.

Timing: Prior to approval of any grading plans and issuance of any grading or construction permits.

3.3.8 Level of Significance After Mitigation

Implementation of the above mitigation measures would reduce potential impacts to biological resources to less-than-significant levels with the exception of Impact BIO-12, which is described further below.

Impacts BIO-1, BIO-2, and BIO-3: Least Bell's Vireo, Southwestern Willow Flycatcher, and Coastal California Gnatcatcher

The direct impacts to suitable habitat for least Bell's vireo, southwestern willow flycatcher, and coastal California gnatcatcher would be reduced to less than significant through implementation of MM-BIO-1, which requires habitat mitigation and take avoidance; MM-BIO-2, which requires habitat mitigation; and MM-BIO-3, which requires focused coastal California gnatcatcher surveys and avoidance of occupied nesting areas.

Impact BIO-4: Other Special-Status Birds

The direct impacts to suitable habitat for Cooper's hawk, yellow-breasted chat, and yellow warbler would be reduced to less than significant through implementation of MM-BIO-2, which requires habitat mitigation at a 3:1 mitigation ratio for impacts to southern cottonwood–willow riparian forest and a 1.5:1 mitigation ratio for impacts to Baccharis-dominated Diegan coastal sage scrub and restored Diegan coastal sage scrub.

Impact BIO-5: Special-Status Amphibians and Reptiles

The direct impacts to suitable habitat for Southern California legless lizard, orange-throated whiptail, southwestern pond turtle, two-striped gartersnake, and western spadefoot would be reduced to less than significant through implementation of MM-BIO-2, which requires habitat mitigation at a 3:1 mitigation ratio for impacts to southern cottonwood–willow riparian forest and 1.5:1 mitigation ratio for impacts to Baccharis-dominated Diegan coastal sage scrub and restored Diegan coastal sage scrub.

Impact BIO-6: Bat Roosts

There are potential significant impacts to maternity bat roosts, if present, that could occur from the removal of suitable riparian trees on site. These impacts would be reduced to less than significant through implementation of MM-BIO-4, which requires bat surveys, maternity roost season avoidance, and roost exclusion to ensure there are no direct impacts to a maternity roost.

Impact BIO-7: Crotch's Bumble Bee

There are potential significant impacts to habitat that could support Crotch's bumble bee from removal of habitat on site. These impacts would be reduced to less than significant through implementation of MM-BIO-5, which requires pre-construction surveys and avoidance of active nests for Crotch's bumble bee.

Impact BIO-8: Migratory Birds

The potential significant direct impacts to nesting birds protected under the MBTA would be reduced to less than significant through implementation of MM-BIO-6, which requires nesting bird surveys when construction activities occur during the bird nesting season and avoidance buffers if active nests are found.

Impact BIO-9: Special-Status Plants

Potentially significant direct impacts to two special-status plants, San Diego County viguiera and San Diego marsh-elder, would be reduced to less than significant through implementation of MM-BIO-7, which requires avoidance, biological monitoring and, if required, agency consultation and compensatory mitigation.

Impact BIO-10: Plants – Short-Term Indirect Impacts

The potential significant short-term indirect impacts to special-status plants would be reduced to less than significant through implementation of MM-BIO-8, MM-BIO-9, and MM-BIO-10, which require temporary installation of construction fencing to delineate the limits of grading, biological monitoring, a monitoring report, and implementation of air quality standards. Additionally, MM-BIO-11 requires construction documents to include information regarding equipment storage and language for activities that could result in leakage, sedimentation, or intrusion into the MHPA. A stormwater pollution prevention plan outlining best management practices to reduce discharges of pollutants in stormwater from construction sites to the maximum extent practicable and effectively prohibit non-stormwater discharges from the construction site will be developed and implemented. MM-BIO-12 requires weed control through treatments, restrictions on straw materials that can be used, washing of equipment entering the project area, and proper disposal of vegetation removed from the site to reduce potential invasive species entering the adjacent Stadium Wetland Mitigation Site.

Impact BIO-11: Plants – Long-Term Indirect Impacts

The potential significant long-term indirect impacts to special-status plants and sensitive natural communities would be reduced to less than significant through implementation of MM-BIO-13, which requires signage/barriers between the construction area and the San Diego River, and MM-BIO-14, which imposes restrictions on landscape planting and revegetation within and adjacent to the MHPA. Additionally, MM-BIO-11 requires construction documents to show how the project design is consistent with the MHPA's Land Use Adjacency Guidelines, including drainage, toxics, lighting, barriers, and invasives within the MHPA.

Impact BIO-12: Wildlife – Short-Term Indirect Impacts

The potential significant short-term indirect impacts to special-status wildlife species associated with inadvertent disturbance to vegetation outside the footprint, dust, and non-native animals, among others, would be reduced to less than significant through implementation of MM-BIO-8, MM-BIO-9, and MM-BIO-10, which require temporary installation of construction fencing to delineate the limits of grading, biological monitoring, a monitoring report, and implementation of air quality standards. Additionally, MM-BIO-11 requires construction documents to include language for activities that could result in leakage or intrusion into the MHPA. MM-BIO-15 requires surveys for active nests of least Bell's vireo, southwestern willow flycatcher, and/or coastal California gnatcatcher within 500 feet of the impact areas. If active nests are found within 500 feet of construction activities, a qualified biological monitor shall monitor the nest(s) for any signs of disturbance from construction-related noise. To the extent feasible, on-site noise reduction techniques shall be implemented to minimize construction noise levels so they do not exceed 60 A-weighted decibels hourly equivalent noise level or the ambient noise level, whichever is higher at the nest location. If there are signs of disturbance, noise reduction techniques shall be implemented and may include constructing a sound barrier, utilizing quieter equipment, adhering to equipment maintenance schedules, installing temporary sound barriers, or shifting construction work further from the nest. The installation of very tall, solid sound barriers would result in additional impacts to aquatic resources and habitat and possibly impede wildlife movement; therefore, this would not be a feasible option. While all feasible actions will be taken to minimize potential noise impacts if nests are present within the buffer, significant unavoidable impacts associated with construction-related noise may occur.

Impact BIO-13: Wildlife – Long-Term Indirect Impacts

The potential significant long-term indirect impacts to special-status wildlife species would be reduced to less than significant through implementation of MM-BIO-12, MM-BIO-14, and MM-BIO-16, which require signage/barriers, restrictions on landscape planting, and brown-headed cowbird trapping. Additionally, MM-BIO-11 requires construction documents to show how the project design is consistent with the MHPA's Land Use Adjacency Guidelines, including drainage, toxics, lighting, barriers, and invasives within the MHPA.

Impact BIO-14: Sensitive Natural Communities – Temporary Direct Impacts

The proposed temporary direct impacts to Diegan coastal sage scrub, unvegetated channel, and southern cottonwood–willow riparian forest would be reduced to less than significant through implementation of MM-BIO-17, which requires restoration of these impacts to pre-project condition.

Impact BIO-14: Sensitive Natural Communities – Permanent Direct Impacts

Permanent direct impacts to sensitive vegetation communities and land covers would be reduced to less than significant through implementation of MM-BIO-2, which requires habitat mitigation.

Impact BIO-15: Jurisdictional Waters – Temporary Direct Impacts

The proposed temporary impacts to federally and state-regulated wetlands/riparian areas, including within the Stadium Wetland Mitigation Site, would be reduced to less than significant through implementation of MM-BIO-17, which requires restoration of these impacts to pre-project conditions, and MM-BIO-18, which requires waters and wetland mitigation.

Impact BIO-15: Jurisdictional Waters – Permanent Direct Impacts

Permanent direct impacts to federally and state-regulated wetlands/riparian areas and non-wetland waters would be reduced to less than significant through implementation of MM-BIO-2, which requires habitat mitigation, and MM-BIO-16, which requires waters and wetland mitigation.

Impact BIO-16: Jurisdictional Waters – Short-Term Indirect Impacts

The potential significant short-term indirect impacts to sensitive vegetation communities would be reduced to less than significant through implementation of MM-BIO-8, MM-BIO-9, and MM-BIO-10, which require temporary installation of construction fencing to delineate the limits of grading, biological monitoring, a monitoring report, and implementation of air quality standards. Additionally, MM-BIO-11 requires construction documents to include information regarding equipment storage and language for activities that could result in leakage, sedimentation, or intrusion into the MHPA. Since the low flow channel will remain in place, removal of vegetation will be limited to the impact footprint. In addition, a stormwater pollution prevention plan outlining best management practices to reduce discharges of pollutants in stormwater from construction sites to the maximum extent practicable and effectively prohibit non-stormwater discharges from the construction site will be developed and implemented. MM-BIO-12 requires weed control through treatments, restrictions on straw materials that can be used, washing of equipment entering the project area, and proper disposal of vegetation removed from the site to reduce potential invasive species entering the adjacent Stadium Wetland Mitigation Site.

Impact BIO-17: Jurisdictional Waters – Long-Term Indirect Impacts

The potential significant long-term indirect impacts to sensitive vegetation communities would be reduced to less than significant through implementation of MM-BIO-13, which requires signage/barriers, and MM-BIO-14, which imposes restrictions on landscape and revegetation planting adjacent to the MHPA. Additionally, MM-BIO-11 requires construction documents to show how the project design is consistent with the MHPA's Land Use Adjacency Guidelines, including drainage, toxics, lighting, barriers, and invasives within the MHPA.

Impact BIO-18: Wildlife Movement – Short-Term Indirect Impacts

The potential significant short-term indirect impacts to the native habitat, including the San Diego River, would be reduced to less than significant through implementation of MM-BIO-8 and MM-BIO-9, which require temporary installation of construction fencing to delineate the limits of grading but still allow wildlife to move through the river channel, biological monitoring, and a monitoring report. Additionally, MM-BIO-11 requires construction documents to include language for activities that could result in leakage or intrusion into the MHPA.

Impact BIO-19: Wildlife Movement – Long-Term Indirect Impacts

The potential significant long-term indirect impacts to the native habitat, including the San Diego River, would be reduced to less than significant through implementation of MM-BIO-13 and MM-BIO-14, which require signage/barriers where appropriate to deter access from the bridge into the San Diego River and restrictions on landscape and revegetation planting. Additionally, MM-BIO-11 requires construction documents to show how the project design is consistent with the MHPA's Land Use Adjacency Guidelines, including drainage, toxics, lighting, barriers, and invasives within the MHPA.

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SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

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FIGURE 3.3-1 - View 1

Biological Resources

Fenton Parkway Bridge Project EIR

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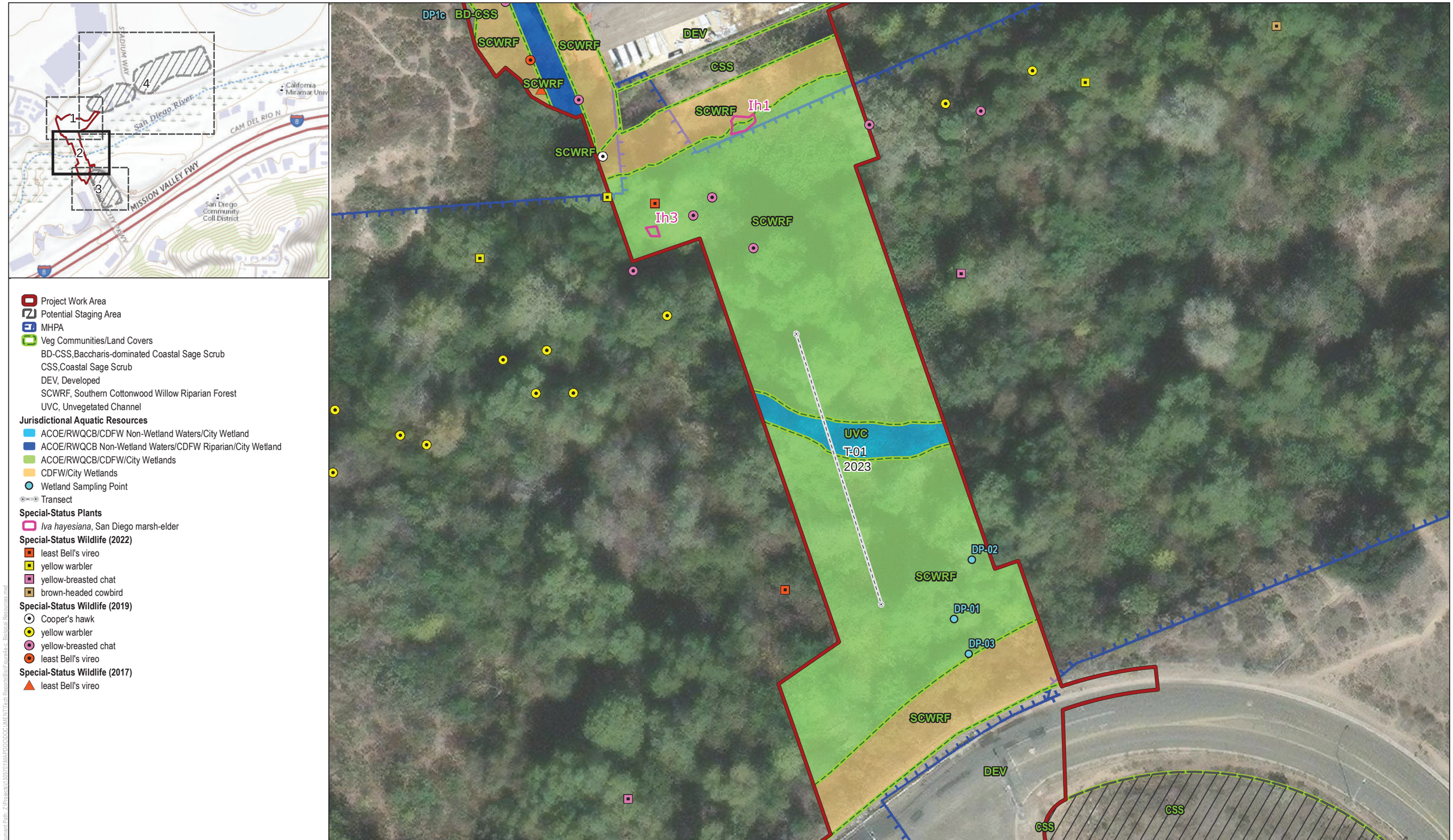

SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

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FIGURE 3.3-1- View 2

Biological Resources

Fenton Parkway Bridge Project EIR

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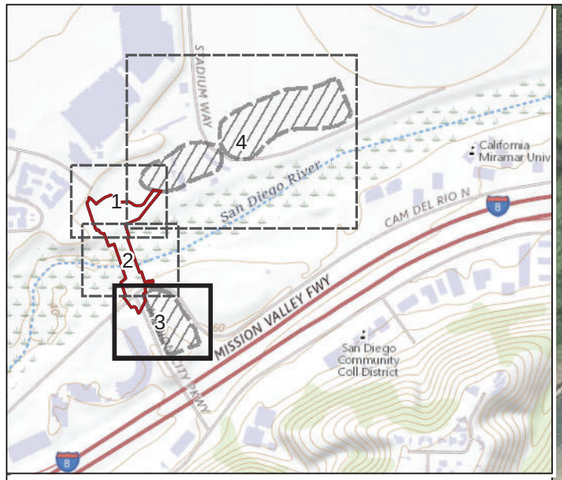

- Project Work Area
- Potential Staging Area
- MHPA
- Veg Communities/Land Covers
  - DEV, Developed
  - SCWRF, Southern Cottonwood Willow Riparian Forest

Jurisdictional Aquatic Resources

- ACOE/RWQCB/CDFW/City Wetlands
- CDFW/City Wetlands

Special-Status Plants

- *Viguiera laciniata*, San Diego County viguiera

Document Path: Z:\Projects\15057101\MAP\DOCS\DOCUMENT\Tech Reports\Bio\Figure4a-c_Biological Resources.mxd

SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

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FIGURE 3.3-1 - View 3

Biological Resources

Fenton Parkway Bridge Project EIR

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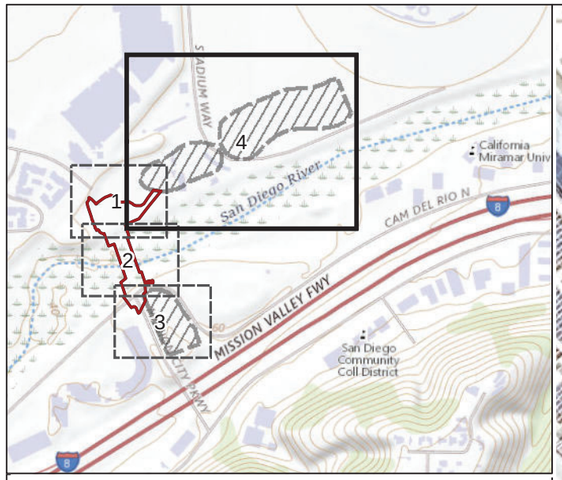

- Project Work Area
- Potential Staging Area
- MHPA
- Veg Communities/Land Covers
  - CSS,Coastal Sage Scrub
  - DEV, Developed

Special-Status Wildlife (2022)
- least Bell's vireo
- yellow warbler
- yellow-breasted chat
- brown-headed cowbird

Special-Status Wildlife (2019)
- yellow warbler
- yellow-breasted chat
- least Bell's vireo

Special-Status Wildlife (2017)
- least Bell's vireo

RIVER PARK RD
San Diego Trolley
DEV
Mission Valley River Park (under construction)
RIVER PARK RD (under construction)
DEV
DEV
CSS
San Diego River

SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

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0 60 120 Feet

FIGURE 3.3-1 - View 4
Biological Resources
Fenton Parkway Bridge Project EIR

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SOURCE: ESRI MAPPING SERVICE 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023

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0 250 500 Feet

FIGURE 3.3-2

Regulatory Setting

Fenton Parkway Bridge Project EIR

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SOURCE: GOOGLE 4/2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

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FIGURE 3.3-3

Noise Modeling

Fenton Parkway Bridge Project EIR

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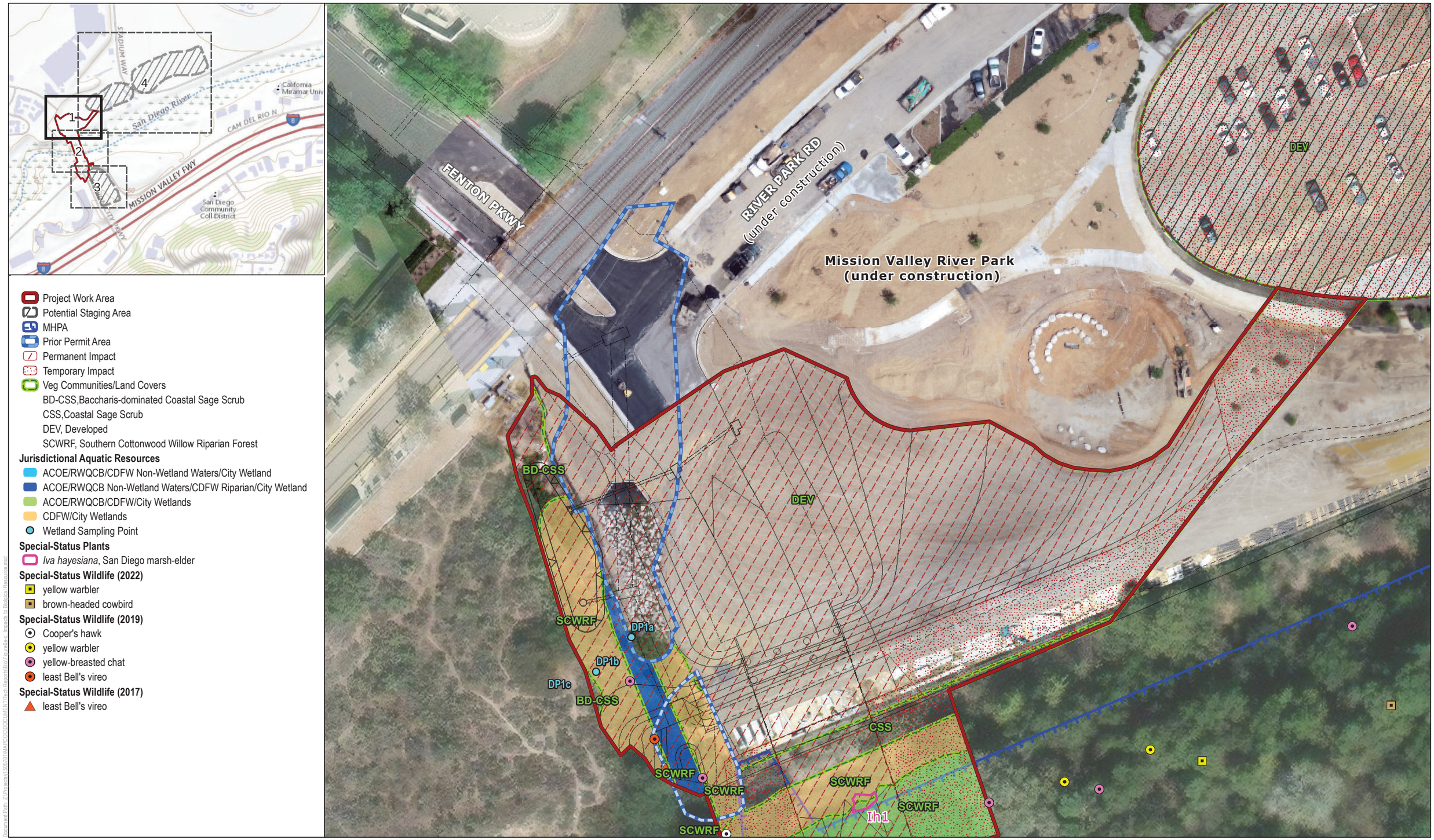

SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

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FIGURE 3.3-4- View 1

Impacts to Biological Resources

Fenton Parkway Bridge Project EIR

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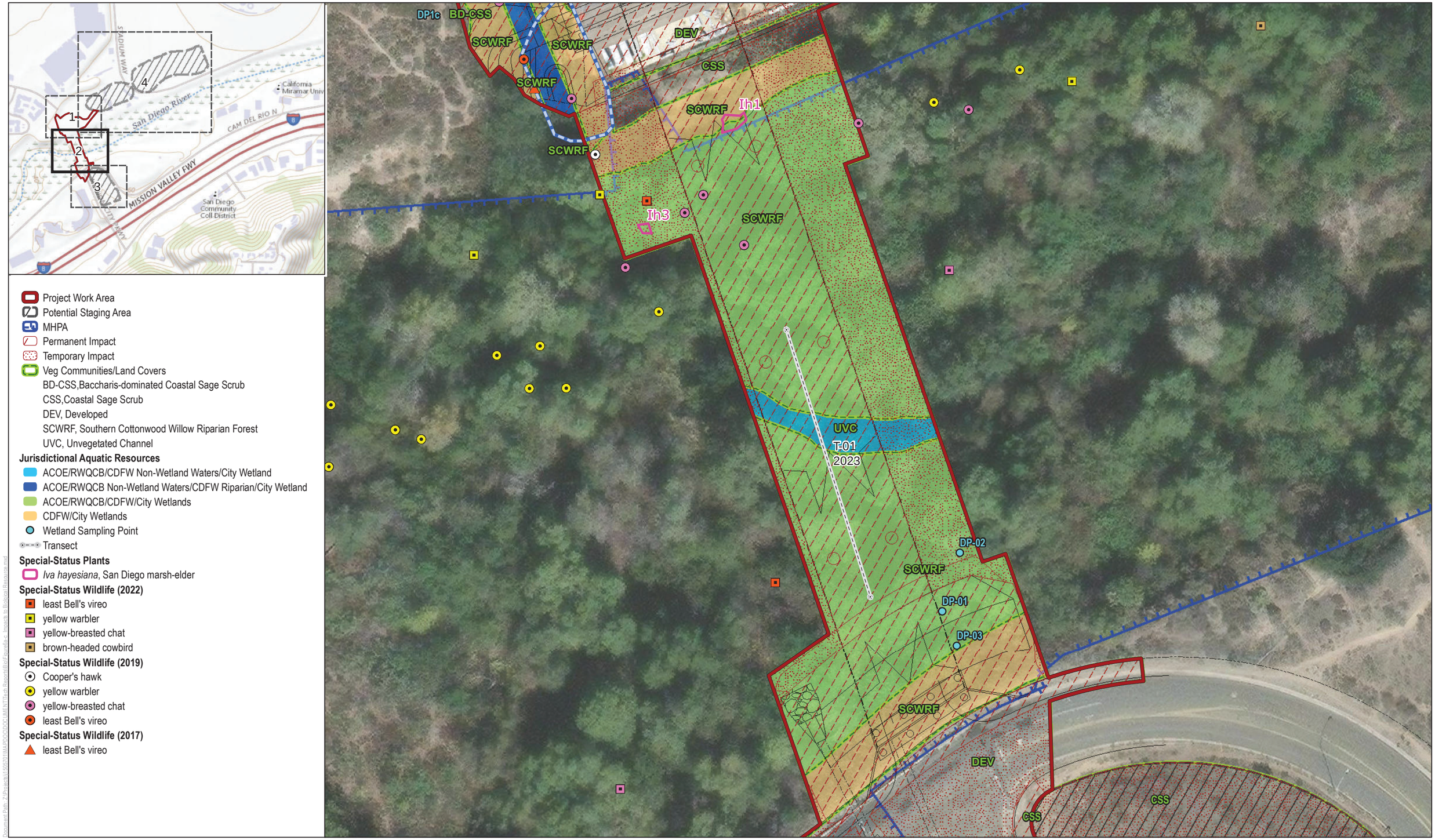

SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

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FIGURE 3.3-4- View 2

Impacts to Biological Resources

Fenton Parkway Bridge Project EIR

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SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

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FIGURE 3.3-4 - View 3

Impacts to Biological Resources

Fenton Parkway Bridge Project EIR

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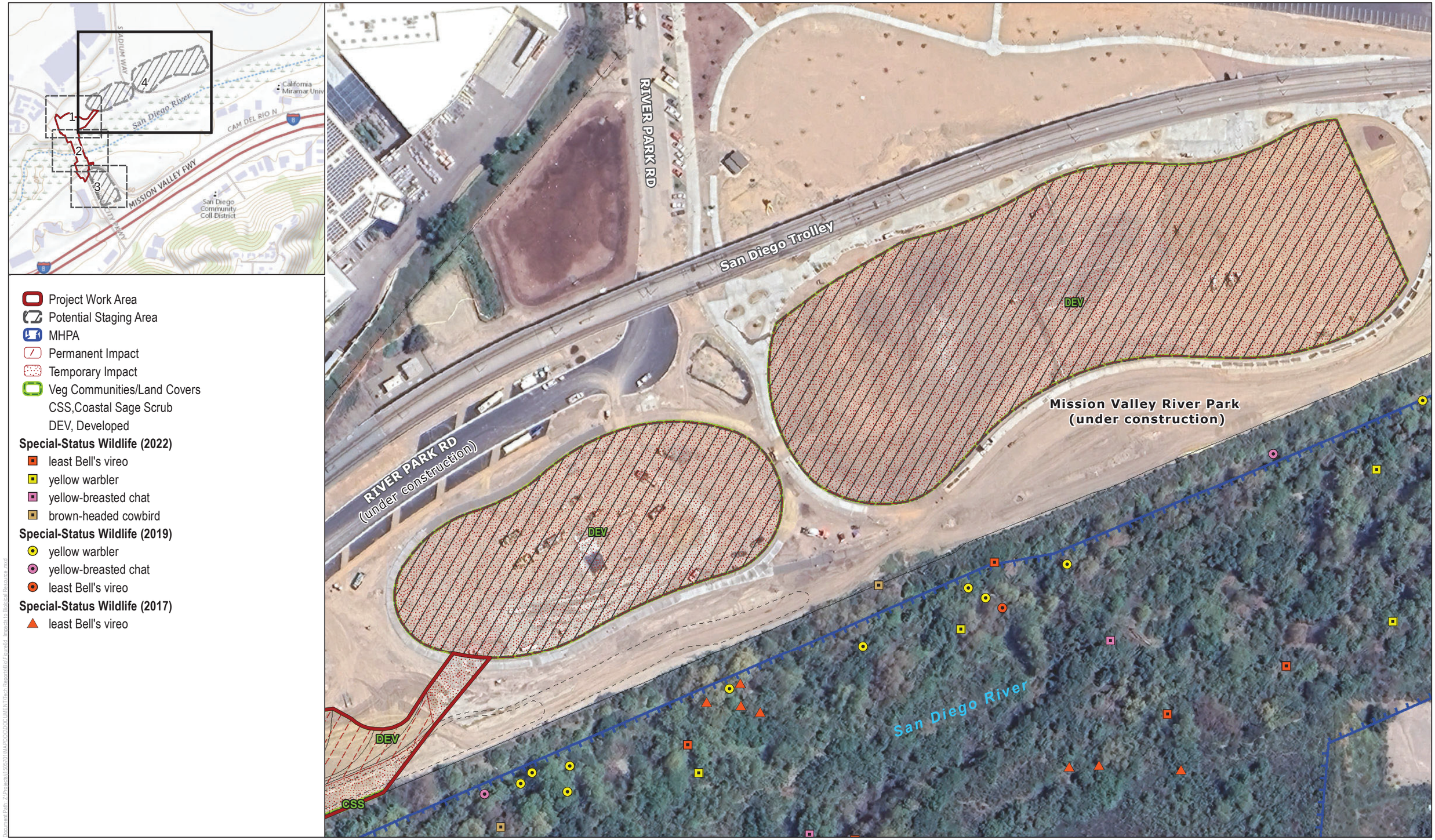

SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; CITY OF SAN DIEGO 2023; BOWMAN/PDC 5/08/2023; GROUP DELTA 5/12/2023

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FIGURE 3.3-4- View 4

Impacts to Biological Resources

Fenton Parkway Bridge Project EIR

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3.4 Cultural Resources

This section describes the existing cultural resources conditions of the project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Fenton Parkway Bridge Project (project). A Cultural Resources Technical Report was prepared for the proposed project by Dudek in October 2023 and is included herein as Appendix D.

A Notice of Preparation (NOP) was circulated from May 22, 2023, to June 20, 2023. A total of 16 letters were received during this comment period. Comments on the NOP related to cultural resources included requests for compliance with Assembly Bill 52 consultation. Please see Appendix A, NOP and Scoping Comments, for a complete compilation of comments received on the NOP.

3.4.1 Existing Conditions

Environmental Setting

The project site is located in the northeast portion of the Mission Valley community, in the central portion of the City of San Diego (City) metropolitan area. Specifically, the project site is situated south of Fenton Parkway and the Fenton Marketplace and north of Camino Del Rio North and would connect these two roadways. The San Diego River bisects the project site from east to west. Surrounding uses include commercial and residential uses to the north, San Diego State University (SDSU) Mission Valley (including Snapdragon Stadium) to the northeast, office and healthcare uses to the south, and open space to the east, including the San Diego River. The bridge would be located within the City's Multi-Habitat Planning Area and the City's Stadium Wetland Mitigation Site (no credit area). The project site is surrounded by four major freeways—Interstate 15, Interstate 8, Interstate 805, and State Route 163—accessed via Friars Road. The existing Metropolitan Transit System Trolley Green Line and Stadium Trolley Station are located on the north bank of the San Diego River, northwest of the project site.

The proposed project's area of potential effects (APE) encompasses the footprint of the bridge, the storm drains, and all temporary work and staging areas. The APE is largely covered by vegetation surrounding the San Diego River, though the northern portion of the APE is completely graded. Though ground surface is visible in these graded areas, there is evidence of earthmoving, which would have removed any resources that may have been present.

Cultural Context

Evidence indicates that continuous human occupation in the San Diego region spans the last 10,000 years. Various attempts to parse out variability in archaeological assemblages over this broad timeframe have led to the development of several cultural chronologies; some of these are based on geologic time, most are based on temporal trends in archaeological assemblages, and others are interpretive reconstructions. Each of these reconstructions describes essentially similar trends in assemblage composition in more or less detail. This research employs a common set of generalized terms used to describe chronological trends in assemblage composition: Paleoindian (pre- 5500 BC), Archaic (8000 BC–AD 500), Late Prehistoric (AD 500–1750), and Ethnohistoric (post-AD 1750). As recognized by State Assembly Joint Resolution No. 60 (2001), the Kumeyaay Nation has occupied the Southern California and Baja California region, including the City's jurisdictional boundaries and the proposed project's APE, far into antiquity. Section 3.3 of the Cultural Resources Technical Report (Appendix D) outlines the cultural chronologies in detail.

Archeological Inventory

The South Coastal Information Center (SCIC) records search identified 99 cultural resource studies that have been previously conducted within 1 mile of the project APE. Of these previous studies, 17 included portions of the APE. The studies included records searches, surveys, and monitoring reports for the San Diego River corridor and stadium grounds. These previous studies did not identify any resources within the APE.

The records search did not identify any previously recorded resources within the project APE; however, 60 cultural resources were identified within 1 mile of the project APE. The prehistoric resources within 1 mile of the project APE include 1 campsite, 1 hearth feature, 1 lithic scatter, and 15 isolates. Historic -period sites include 10 buildings or structures, 4 refuse scatters, a highway, a commercial block, an electricity transmission line, and 21 isolates. One multicomponent site, a historic period refuse scatter with a prehistoric lithic flake, was also identified within 1 mile of the project APE. The records search also identified three historic addresses without Primary numbers: Mission Cliff Gardens, 4010 Wesleyan Place, and 5007 Raymond Place.

In addition to the SCIC records search, Dudek conducted an online review of historic aerial images of the project APE and general vicinity. The aerial photographs indicated that the project APE remained unchanged until 1997 when development north of the project APE prompted construction of the railway and Fenton Parkway. Aerial photographs show no change in the project APE since the late 1990s.

A review of the available aerial photographs informs SDSU's understanding of the cultural resources sensitivity of the project APE. The San Diego River watershed covers at least the southern half of the project APE. The San Diego River corridor was a rich resource and thoroughfare for the Kumeyaay Native American, both before and after European contact. The prehistoric Kumeyaay trail system extended along the San Diego River corridor and village sites were often located where trails meet along the river. The previous expansion of the San Diego watershed increases the likelihood that buried archaeological resources and tribal cultural resources will be encountered throughout the project APE. The hillsides northwest of the project APE were a prime location of encampments that overlooked the river valley. This again increases the likelihood of identifying cultural resources during construction.

3.4.2 Relevant Plans, Policies, and Ordinances

Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) established the National Register of Historic Places (NRHP) and the President's Advisory Council on Historic Preservation (ACHP), and provided that states may establish State Historic Preservation Officers (SHPOs) to carry out some of the functions of the NHPA. Section 106 of the NHPA directs that "[t]he head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the NRHP." Section 106 also affords the ACHP a reasonable opportunity to comment on the undertaking (16 USC 470f).

36 Code of Federal Regulations (CFR), Part 800 implements Section 106 of the NHPA. It defines the steps necessary to identify historic properties (those cultural resources listed in or eligible for listing in the NRHP), including consultation with federally recognized Native American tribes to identify resources with important cultural values, to determine whether or not they may be adversely affected by a proposed undertaking and the process for eliminating, reducing, or mitigating the adverse effects.

The content of 36 CFR 60.4 defines criteria for determining eligibility for listing in the NRHP. The significance of cultural resources identified during an inventory must be formally evaluated for historic significance in consultation with the ACHP and the SHPO to determine if the resources are eligible for inclusion in the NRHP. Cultural resources may be considered eligible for listing if they possess integrity of location, design, setting, materials, workmanship, feeling, and association.

Regarding Criteria A through D of Section 106, the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, cultural resources, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that:

A. are associated with events that have made a significant contribution to the broad patterns of our history; or
B. are associated with the lives of persons significant in our past; or
C. 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. have yielded or may be likely to yield, information important in prehistory or history [36 CFR 60.4].

The National Historic Preservation Act Amendments

The 1992 amendments to the NHPA enhance the recognition of tribal governments' roles in the national historic preservation program, including adding a member of an Indian tribe or Native Hawaiian organization to the ACHP. The 1992 amendments to the NHPA include the following:

- Clarify that properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization may be determined eligible for inclusion in the NRHP.
- Reinforce the provisions of the ACHP's regulations that require the federal agency to consult on properties of religious and cultural importance.

The 1992 amendments also specify that the ACHP can enter into agreement with tribes that permit undertakings on tribal land and that are reviewed under tribal regulations governing Section 106. Regulations implementing the NHPA state that a federal agency must consult with any Indian tribe that attaches religious and cultural significance to historic properties that may be affected by an undertaking.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act of 1979 (ARPA) requires landholding federal agencies to notify federally recognized Indian tribes before a permit is issued for archaeological excavation on sites of religious or cultural importance to them in national parks, wildlife refuges, or forests, or on Indian lands. ARPA raised the penalty for looting objects older than 100 years to $20,000 dollars for a first-time felony infraction. For a repeat infringement the fine was raised to $100,000 and up to 5 years in prison.

Federally recognized tribes must be notified 30 days before issuing a permit for excavations on public land; upon request, the federal land manager must meet with them in those 30 days to discuss their concerns. On Indian lands, Indian tribe or individual consent must be obtained before the permit is granted.

Uniform rules and regulations were published by the Departments of the Interior (43 CFR 7), Agriculture (36 CFR 296), and Defense (32 CFR 229) and the Tennessee Valley Authority (18 CFR 1313) in the January 6, 1984, Federal Register. Similar regulations were published for implementing ARPA on Indian lands (25 CFR 262) in the December 13, 1993, Federal Register.

The regulations also state that the federal agency also may notify any other Native American group known by the agency to consider the sites to be of cultural or religious importance. The intentional excavation of human remains, funerary objects, sacred objects, or objects of cultural patrimony from federal lands and tribal lands must follow both the requirements of ARPA and the Native American Graves Protection and Repatriation Act (NAGPRA). The Bureau of Indian Affairs will issue any ARPA permits needed for excavation on private lands within the exterior boundaries of Indian reservations.

The Native American Graves Protection and Repatriation Act

NAGPRA became effective November 16, 1990. NAGPRA addresses the rights of lineal descendants, Indian tribes, and Native Hawaiian organizations to human remains and certain cultural items with which they are affiliated. NAGPRA directs federal agencies and museums to identify, in consultation with Native Americans, the cultural affiliation of Native American human remains and associated funerary objects, unassociated funerary objects, sacred objects, or objects of cultural patrimony, in holdings or collections under their possession (i.e., physical custody) or control (i.e., having sufficient legal interest). Ultimately, the intent is to repatriate the human remains and other cultural items to the appropriate lineal descendants or tribe. NAGPRA authorizes provisions for federal grants supporting activities of repatriation, and outlines penalties for non-compliance and illegal trafficking of funerary or sacred items. Such civil penalties are to be assessed by the Secretary of the Interior, and generally correspond with those defined in the ARPA.

State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires that all private and public activities not specifically exempted be evaluated for their potential to cause environmental impacts, including impacts to historical resources. Historical resources are recognized as part of the environment under CEQA, which defines historical resources as “any object, building, structure, site, area, or place that is historically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California” (Division I, California Public Resources Code [PRC], Section 5021.1[b]).

As described further below, the following CEQA statutes and CEQA Guidelines are relevant to the analysis of archaeological and historic resources:

- PRC Section 21083.2(g): Defines “unique archaeological resource.”
- PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a): Defines historical resources. In addition, CEQA Guidelines Section 15064.5(b) defines the phrase “substantial adverse change in the significance

of an historical resource. It also defines the circumstances when a project would materially impair the significance of a historical resource.

- PRC Section 21074 (a): Defines "tribal cultural resources," and Section 21074(b): defines a "cultural landscape."
- PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e): These statutes set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.
- PRC Sections 21083.2(b)-(c) and CEQA Guidelines Section 15126.4: These statutes and regulations provide information regarding the mitigation framework for archaeological and historic resources, including options of preservation-in-place mitigation measures; identifies preservation-in-place as the preferred manner of mitigating impacts to significant archaeological sites.

Under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (PRC Section 21084.1; 14 CCR 15064.5[b]). An "historical resource" is any site listed or eligible for listing in the California Register of Historical Resources (CRHR). The CRHR listing criteria are intended to examine whether the resource in question: (a) is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; (b) is associated with the lives of persons important in our past; (c) embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or (d) has yielded, or may be likely to yield, information important in pre-history or history.

The term "historical resource" also includes any site described in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of PRC Section 5024.1[q]).

CEQA also applies to "unique archaeological resources." PRC Section 21083.2(g) defines a "unique archaeological resource" as any archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

In 2014, CEQA was amended to apply to "tribal culture resources" as well. Specifically, PRC Section 21074 provides guidance for defining tribal cultural resources as either of the following:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following: (a) Included or determined to be eligible for inclusion in the California Register of Historical Resources. (b) Included in a local register of historical resources as defined in subdivision (k) of [Section] 5020.1.
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of [Section] 5024.1. In applying the criteria set forth in subdivision (c) of [Section] 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe. (b) A cultural landscape

that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

All historical resources and unique archaeological resources – as defined by statute – are presumed to be historically or culturally significant for purposes of CEQA (PRC Section 21084.1; 14 CCR Section 15064.5[a]). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (PRC Section 21084.1; 14 CCR 15064.5[a]). A site or resource that does not meet the definition of "historical resource" or "unique archaeological resource" is not considered significant under CEQA and need not be analyzed further (PRC Section 21083.2[a]; 14 CCR 15064.5[c][4]).

Under CEQA, a significant cultural impact results from a "substantial adverse change in the significance of an historical resource [including a unique archaeological resource]" due to the "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (14 CCR 15064.5[b][1]; PRC Section 5020.1[q]). In turn, the significance of a historical resource is materially impaired when a project (14 CCR 15064.5[b][2]):

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA.

Pursuant to these sections, the CEQA first evaluates whether a project site contains any "historical resources," then assesses whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

When a project significantly affects a unique archeological resource, CEQA imposes special mitigation requirements (PRC Section 21083.2[b][1]–[4]):

- If it can be demonstrated that a project will cause damage to a unique archeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. Examples of that treatment, in no order of preference, may include, but are not limited to, any of the following:
  1. Planning construction to avoid archeological sites.
  2. Deeding archeological sites into permanent conservation easements.
  3. Capping or covering archeological sites with a layer of soil before building on the sites.
  4. Planning parks, greenspace, or other open space to incorporate archeological sites.

If these "preservation in place" options are not feasible, mitigation may be accomplished through data recovery (PRC Section 21083.2[d]; 14 CCR 15126.4[b][3][C]). PRC Section 21083.2(d) states that "[e]xcavation as mitigation shall be restricted to those parts of the unique archeological resource that would be damaged or destroyed by the project. Excavation as mitigation shall not be required for a unique archeological resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the resource, if this determination is documented in the environmental impact report."

These same requirements are set forth in slightly greater detail in CEQA Guidelines Section 15126.4(b)(3), as follows:

A. Preservation in place is the preferred manner of mitigating impacts to archeological sites. Preservation in place maintains the relationship between artifacts and the archeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.
B. Preservation in place may be accomplished by, but is not limited to, the following:
    1. Planning construction to avoid archeological sites;
    2. Incorporation of sites within parks, greenspace, or other open space;
    3. Covering the archeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site[; and]
    4. Deeding the site into a permanent conservation easement.
C. When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken.

Note that, when conducting data recovery, "[i]f an artifact must be removed during project excavation or testing, curation may be an appropriate mitigation" (14 CCR 15126.4[b][3]). However, "[d]ata recovery shall not be required for an historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archeological or historic resource, provided that determination is documented in the EIR and that the studies are deposited with the California Historical Resources Regional Information Center" (14 CCR 15126.4[b][3][D]).

Finally, CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. If Native American human remains or related cultural material are encountered, Section 15064.5(e) of the CEQA Guidelines (as incorporated from PRC Section 5097.98) and California Health and Safety Code Section 7050.5 define the subsequent protocol. In the event of the accidental discovery or recognition of any human remains, excavation or other disturbances shall be suspended of the site or any nearby area reasonably suspected to overlie adjacent human remains or related material. Protocol requires that a county-approved coroner be contacted in order to determine if the remains are of Native American origin. Should the coroner determine the remains to be Native American, the coroner must contact the Native American Heritage Commission (NAHC) within 24 hours. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98 (14 CCR 15064.5[e]).

CEQA (PRC Section 21000 et seq.) is the primary state environmental law protecting fossils. CEQA requires that public agencies and private interests identify the environmental consequences of their proposed projects on any object or site of significance to the scientific annals of California (Division I, PRC Section 5020.1[b]). Administrative regulations for the implementation of CEQA are set forth in California Code of Regulations Section 15000 et seq., commonly known as the "CEQA Guidelines." The CEQA Guidelines define procedures, types of activities, persons, and public agencies required to comply with CEQA. Appendix G of the CEQA Guidelines contains an Environmental Checklist of questions that a lead agency should normally address if relevant to a project's environmental impacts. CEQA Guidelines Section VII(f) of the Environmental Checklist asks a question directly applicable paleontological resources: "Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?" Fossils are significant examples of the major periods of California prehistory. To comply with CEQA, environmental impact assessments, statements, and reports must answer this question in the Environmental Checklist to determine the potential impact to paleontological resources with and without mitigation.

The CEQA lead agency having jurisdiction over a project is responsible for ensuring that paleontological resources are protected in compliance with CEQA and other applicable statutes. CEQA Section 21081.6 requires that the lead agency demonstrate project compliance with mitigation measures developed during the environmental impact review process.

California Public Resources Code Sections 5024 and 5024.5 (State-Owned Historical Resources)

Sections 5024 and 5024.5 of the PRC provide the following guidance:

5024(a–h): Describes the process of inventorying and evaluating state-owned historical resources in consultation with the SHPO.

5024.5(a–g): Describes the process of identifying adverse effects and development of alternatives and mitigation for state-owned historical resources in consultation with, and as determined by, the SHPO.

Under PRC Sections 5024(f) and 5024.5, state agencies must provide notification and submit documentation to the SHPO early in the planning process for any project having the potential to affect state-owned historical resources on or eligible for inclusion in the Master List (buildings, structures, landscapes, archaeological sites, and other nonstructural resources). Under PRC Section 5024(f), state agencies request the SHPO's comments on the project.

Under PRC Section 5024.5, it is the SHPO's responsibility to comment on the project and to determine if it may cause an adverse effect, defined as a substantial adverse change in the significance of a historical resource (PRC Section 5020.1[q]). In this case, historical resources are defined as resources eligible for or listed in the NRHP, and/or resources registered for or eligible for registering as a California Historical Landmark.

California Historical Landmark Criteria

California Historical Landmarks are sites, buildings, features, or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. To be eligible for designation as a California Historical Landmark, a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California).
- Associated with an individual or group having a profound influence on the history of California.
- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

California Register of Historical Resources

In California, the term "historical resource" includes but is not limited to "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (PRC Section 5020.1[j]). In 1992, the California legislature established the CRHR "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1[a]). A resource is eligible for listing in the CRHR if the State Historical Resources Commission determines that it is a significant resource and that it meets any of the following criteria:

1. Associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. Associated with the lives of persons important in California's past.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. Yielded, or may be likely to yield, information important in prehistory or history.

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys (PRC Section 5020 et seq.).

Local

Because SDSU is an entity of the California State University (CSU), which is a state agency, the proposed project is not subject to local government planning and land use plans, policies, or regulations. However, for informational purposes, SDSU has considered the following planning documents and the project's site location within, and relationship to, each. The proposed project would be subject to federal and state agency planning documents described above, but would not be subject to regional or local planning documents such as the City's General Plan, Mission Valley Community Plan, or San Diego Municipal Code.

City of San Diego

As previously stated, though the CSU is not required to follow the City's historical resources evaluation protocol, which are set forth in the City's Historical Resources Guidelines (City of San Diego 2001), the CSU has elected to use the protocol due to its applicability to the San Diego built environment. The Historical Resources Guidelines establish a development review process to review projects in the City. This process involves the implementation of the Historical Resources Regulations and the determination of impacts and mitigation under CEQA. The Historical Resources Guidelines provide property owners, the development community, consultants, and the general public with explicit guidelines for the management of historical resources located within the jurisdiction of the City.

The Historical Resources Guidelines help to implement the City's Historical Resources Regulations contained in the Land Development Code (Chapter 14, Division 3, Article 2) in compliance with applicable local, state, and federal policies and mandates, including, but not limited to, the City's General Plan, CEQA, and NHPA Section 106. The intent of the Historical Resources Guidelines is to ensure consistency in the management of the City's historical resources, including identification, evaluation, preservation/mitigation and development.

The City's Historical Resources Guidelines (City of San Diego 2001) observe that:

> Historical resources include all properties (historic, archaeological, landscapes, traditional, etc.) eligible or potentially eligible for the National Register of Historic Places, as well as those that may be significant pursuant to state and local laws and registration programs such as the California Register of Historical Resources or the City of San Diego Historical Resources Register. "Historical resource" means site improvements, buildings, structures, historic districts, signs, features (including significant trees or other landscaping), places, place names, interior elements and fixtures designated in conjunction with a property, or other objects of historical, archaeological, scientific, educational, cultural, architectural, aesthetic, or traditional significance to the citizens of the City. They include buildings, structures, objects, archaeological sites, districts or landscapes possessing physical evidence of human activities that are typically over 45 years old, regardless of whether they have been altered or continue to be used. Historical resources also include traditional cultural properties. The following definitions are based, for the most part, on California's Office of Historic Preservation's (OHP) Instructions for Recording Historical Resources and are used to categorize different types of historical resources when they are recorded.

The purpose and intent of the Historical Resources Regulation of the Land Development Code (City of San Diego 2018) is outlined as follows: "To protect, preserve and, where, damaged, restore the cultural resources of San Diego. The regulations apply to all development within the City of San Diego when cultural resources are present within the premises regardless of the requirement to obtain Neighborhood Development Permit or Site Development Permit."

The City's General Plan Program Environmental Impact Report (City of San Diego 2007) states the following:

> The Historical Resources Regulations require that designated cultural resources and traditional cultural properties be preserved unless deviation findings can be made by the decision maker as part of a discretionary permit. Minor alterations consistent with the U.S. Secretary of the Interior's Standards are exempt from the requirement to obtain a separate permit but must comply with the regulations and associated cultural resources guidelines. Limited development may encroach

into important archaeological sites if adequate mitigation measures are provided as a condition of approval.

Historical Resources Guidelines, located in the Land Development Manual, provide property owners, the development community, consultants and the general public explicit guidance for the management of cultural resources located within the City's jurisdiction. These guidelines are designed to implement the cultural resources regulations and guide the development review process from the need for a survey and how impacts are assessed to available mitigation strategies and report requirements and include appropriate methodologies for treating cultural resources located in the City.

In general, the City's cultural resources regulations build on federal and state cultural resources laws and guidelines in an attempt to streamline the process of considering impacts to cultural resources within the City's jurisdiction, while maintaining that some resources not significant under federal or state law may be considered historical under the City's guidelines. In order to apply the criteria and determine the significance of potential project impacts to a cultural resource, the project APE must be defined for both direct impacts and indirect impacts. Indirect impacts can include increased public access to an archaeological site or visual impairment of a historically significant viewshed related to a historic building or structure.

3.4.3 Significance Criteria

The significance criteria used to evaluate the project impacts to cultural resources are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to cultural resources would occur if the project would:

1. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.
3. Disturb any human remains, including those interred outside of dedicated cemeteries.

3.4.4 Impacts Analysis

Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Construction/Temporary Impacts

Direct Impacts

Pre-Cast and Cast-in-Place Construction Methods

No archaeological resources were identified through the SCIC records search or through the intensive pedestrian survey of the area. The northern portion of the project APE has been highly disturbed through grading, which was previously monitored by an archaeologist and Native American monitor. This northern portion of the project APE has been substantially disturbed and is unlikely to contain intact archaeological deposits. However, the majority of the project APE is undeveloped and covered by dense vegetation surrounding the San Diego River corridor. This area was not subject to intensive pedestrian survey, because the dense vegetation restricted access and ground visibility.

Also, due to the proximity of the proposed project to and within the San Diego River, the Kumeyaay trail system that extended along the San Diego River corridor, and the prehistoric village of *Nipawai/Nipaguay*, there is an increased potential that buried cultural deposits are present within the project area. Previous projects immediately adjacent to the current APE have identified highly sensitive prehistoric archaeological materials and tribal cultural resources within eroded soils from previous San Diego River flood events. Likewise, a response to Dudek's NAHC outreach letter stated that resources have been previously "located within or adjacent to the APE." Construction related to the proposed project may result in uncovering previously unidentified cultural resources. As such, archaeological and Native American monitoring is recommended during initial ground-disturbing activities including, but not limited to, vegetation removal, drilling, and grading. Should construction or other personnel encounter any historical, archaeological, or Native American cultural material within the proposed project area, the proposed project would result in **potentially significant** impacts.

Indirect Impacts

Pre-Cast and Cast-in-Place Construction Methods

No archaeological resources were identified through the SCIC records search, NAHC and tribal correspondence, or through the intensive pedestrian survey of the area. Construction activities in the area would not introduce indirect impacts to surrounding archaeological resources. Because the surrounding project area has been substantially developed, any increased vehicle and pedestrian traffic resulting from project construction would pose little risk to previously recorded archaeological resources in the project vicinity. As such, **no indirect impacts** to archeological resources would occur during construction.

Operational/Permanent Impacts

No archaeological resources were identified through the SCIC records search or through intensive pedestrian survey of the area. However, adjacent projects and NAHC consultation did identify the possibility that the project APE may intersect previously unidentified cultural resources. Once construction is complete, operation of the project would not have a direct impact to previously identified archaeological resources since they would have been identified and properly mitigated during initial discovery (i.e., during construction). Because the surrounding project area has been substantially developed, any increased vehicle and pedestrian traffic resulting from project operation would pose no risk of indirect impacts to adjacent archaeological resources in the project vicinity. Further, operation of the project will not introduce vehicles or pedestrians within the less developed river corridor; rather, it will allow for travel over the less developed river corridor via the bridge. After pre-cast or cast-in-place construction is finished, **no direct or indirect impacts** to cultural resources would occur during operation.

Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Pre-Cast and Cast-in-Place Construction Methods

No historical resources were identified in the project APE based on a review of the SCIC records search material, assessor records, historic aerial imagery, online research, and an intensive pedestrian survey. The APE transects a segment of the San Diego River near the area of Fenton Parkway and Northside Drive, as well as the area near Mission City Parkway and Camino Del Rio North. Although portions of the San Diego River have been engineered, the portion of the river in the project APE is considered a non-engineered watercourse. As such, the embankments along the San Diego River segment in the APE are not considered components of an engineered structure or

formal levee system. Consequently, the river, which is a natural watercourse, and its associated embankments are not considered built environment resources or a historical resource for the purposes of CEQA.

Additionally, research did not indicate that the river and the natural resources within project APE collectively constitute a cultural landscape or any of its sub-types—including a historic site, historic designed landscape, historic vernacular landscape, or ethnographic landscape; therefore, the geographic area within the APE lacks sufficient significance to be considered a historical resource under CEQA. The geographic area within the proposed project APE does not qualify as a historic site because it is not a landscape that is known to have a significant association with a historic event, activity, or person. Secondly, the geographic area within the project APE is not a historic designed landscape because research did not indicate that it was consciously designed and laid out by a master landscape architect or that it has a historical association with a significant person, trend, or movement in landscape architecture or a significant relationship to the theory or practice of landscape architecture. Thirdly, the geographic area within the project APE is not considered a historic vernacular landscape because the use and physical layout of this land is not known to directly reflect an endemic tradition, custom, belief, or cultural value. Finally, the geographic area was not identified as an ethnographic landscape during tribal consultation.

According to the National Levee Database established by the U.S. Army Corps of Engineers, there are levees located approximately 2 miles west of the APE. One levee consists of a 460-foot-long segment of the San Diego River Levee (ID No. 1905037005) along the north bank of the river, and another 1,040-foot-long levee segment of the San Diego River, South Levee (ID No. 1905037004), is located near State Route 163, approximately 2.15 miles west of the APE on the south bank of the river. Both levee segments were constructed by the U.S. Army Corps of Engineers and have been maintained and operated by the City (the local sponsor) since December 3, 1953 (USACE 2015). Both levees were excluded from the APE because they are too distant from the proposed construction and operation activities to be affected by the project.

Closer to the project site, all buildings at the periphery of the APE were built after 1985 and would not trigger the City's 45-year threshold for local evaluations and do not yet meet the 50-year age consideration for NRHP and CRHR evaluations (in this case 1973 or earlier) or the significance threshold for exceptional importance if less than 50 years old. The project APE contains no historical resources and therefore the project would not directly affect any such resources. Additionally, the project APE contains no geographic areas of indirect effect, since there are no reasonably foreseeable project activities that would occur later in time or that would be farther removed in distance that could indirectly affect a historical resource. Finally, since the project would not cause any direct or indirect effects that would result in a substantial adverse change in the significance of a historical resource, the APE contains no areas under consideration for cumulative impacts. Overall, pre-cast or cast-in-place construction and operation of the project would result in **no impact** on historical resources and, therefore, no mitigation would be required.

Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Construction/Temporary Impacts

Direct Impacts

Pre-Cast and Cast-in-Place Construction Methods

No human remains localities were identified through the SCIC records search, NAHC and tribal correspondence, or through the intensive pedestrian survey of the area. However, previous projects immediately adjacent to the current APE have identified human remains within soils eroded from upstream during previous San Diego River flood events. Because the project APE contains similar soil conditions as were found within adjacent projects where human remains were identified, there is an increased likelihood that human remains could be encountered within the project APE during project-related ground disturbance. Archaeological and Native American monitoring should occur during initial ground-disturbing activities of previously undisturbed soils. Should construction or other personnel encounter any previously undocumented human remains, the proposed project would result in a **potentially significant** impact.

Indirect Impacts

Pre-Cast and Cast-in-Place Construction Methods

No known human remains localities were identified through the SCIC records search, NAHC and tribal correspondence, or through the intensive pedestrian survey of the area. However, previous projects immediately adjacent to the current APE have identified human remains within eroded soils from previous San Diego River flood events. However, there are no known surface manifestations of this resource adjacent to the proposed project. Because the surrounding project area has been substantially developed, any increased vehicle and pedestrian traffic resulting from operation of the project would pose little risk to human remains in the project vicinity. Operational/permanent activities related to the proposed project would have **no indirect impact** on previously recorded human remains.

Operational/Permanent Impacts

No human remains were identified through the SCIC records search, NAHC and tribal correspondence, or through the intensive pedestrian survey of the area. Operational/permanent activities related to the proposed project would not have a direct impact to previously identified human remains since they would have been identified and properly mitigated during initial discovery (during construction). Operation of the project is not expected to result in vehicles or pedestrians coming to the project site in a manner that could result in the discovery of human remains; rather, it will allow for travel over the project site via the bridge. Because the surrounding project area has been substantially developed, any increased vehicle and pedestrian traffic resulting from operation of the project would not have an indirect impact on previously recorded human remains. **No direct or indirect impacts** would occur during operation.

3.4.5 Cumulative Impacts

Would the project result in a cumulative impact when considered with other present and probable future projects in the region?

Future probable proposed projects within the City could potentially contribute to cumulative impacts on cultural resources. In many cases, site redesign or use of fill could minimize these adverse impacts. Total avoidance of cultural resources is not a reasonable expectation. Additionally, the increased human activity near cultural resources would lead to greater exposure and potential for illicit artifact collection and inadvertent impacts during construction. The City and County of San Diego both maintain guidelines and protocols for addressing project impacts to cultural resources. These include both systematic surveys in areas of high site-location potential to identify resources and monitoring programs to ensure that construction work is halted if significant resources are discovered. No archaeological resources have been identified through the records searches, NAHC and tribal correspondence, or through the intensive pedestrian survey of the area. However, because of the known cultural sensitivity of the San Diego River corridor, there is an increased potential that project construction would impact previously unidentified cultural resources. As such, construction of the proposed project would result in potentially significant direct impacts. However, these impacts would be mitigated during the construction phase of the proposed project (see Mitigation Measure [MM] CUL-1 in Section 3.4.7, Mitigation Measures), and the proposed project's contribution to cumulative impacts on archaeological resources would be **less than significant**.

3.4.6 Summary of Impacts Prior to Mitigation

Prior to mitigation, impacts associated with the potential discovery of cultural resources, or human remains, during construction would be potentially significant.

3.4.7 Mitigation Measures

The following mitigation measures would reduce the potential for impacts on cultural resources.

MM-CUL-1 In order to mitigate impacts to cultural resources to a level that is less than significant, procedures for proper treatment of unanticipated archaeological finds must comply with the California Environmental Quality Act (CEQA) Guidelines. Adherence to the following requirements during initial earth-disturbing activities will assure the proper treatment of unanticipated archaeological or Native American cultural material:

1. An archaeological monitor and a qualified Kumeyaay Native American monitor shall be present full-time during all initial ground-disturbing activities of previously undisturbed soils. If proposed project excavation later present evidence suggesting a decrease in cultural sensitivity such as geologic formation predating human occupation of the Americas, the monitoring schedule can be reduced pending archaeological, Native American, and San Diego State University (SDSU) consultation.
2. In the event that previously unidentified potentially significant cultural resources are discovered, the archaeological monitor, Kumeyaay Native American monitor, construction or other personnel shall have the authority to divert or temporarily halt ground disturbance operations within 50 feet of the find. The archaeological monitor shall promptly evaluate and document isolates and clearly non-significant deposits in the field. More significant deposits

shall be evaluated under the direction of the lead archaeologist on the proposed project, in consultation with the Native American monitor and SDSU staff. For significant cultural resources, a Research Design and Data Recovery Program to mitigate impacts shall be prepared by the qualified archaeologist and approved by SDSU, then carried out expeditiously using professional archaeological methods. The Research Design and Data Recovery Program shall include (1) reasonable efforts to preserve (avoidance) "unique" cultural resources or Sacred Sites pursuant to CEQA Section 21083.2(g) as the preferred option; (2) the capping of identified Sacred Sites or unique cultural resources and placement of development over the cap, if avoidance is infeasible; and (3) data recovery for unavoidable cultural resources. Construction activities will be allowed to resume in the affected area only after proper evaluation, as described above.

MM-CUL-2 In order to mitigate impacts to human remains to a level that is less than significant, procedures for proper treatment of unanticipated finds must comply with the California Environmental Quality Act (CEQA) Section 15064.5(e). In the event of discovery of unanticipated human remains, personnel shall comply with California Public Resources Code Section 5097.98, CEQA Section 15064.5, and Health and Safety Code Section 7050.5 during ground-disturbing activities:

a. If any human remains are discovered, the construction personnel or the appropriate representative shall contact the County Coroner and San Diego State University. Upon identification of human remains, no further disturbance shall occur in the immediate area of the find until the County Coroner has made the necessary findings as to origin. If the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the Native American Heritage Commission, shall be contacted by the property owner or their representative to make recommendations regarding the proper treatment and disposition of the remains. The immediate vicinity where the Native American human remains are located is not to be damaged or disturbed by further development activity until the opportunity to complete consultation with the Most Likely Descendant regarding their recommendations as required by California Public Resources Code Section 5097.98 has occurred. California Public Resources Code Section 5097.98, CEQA Section 15064.5, and California Health and Safety Code Section 7050.5 shall be followed.

3.4.8 Level of Significance After Mitigation

With implementation of MM-CUL-1, the proposed project would have a less than significant impact on archaeological resources. Cultural monitoring under MM-CUL-1 will ensure that any previously unidentified potentially significant cultural resources that may be encountered during construction will be evaluated and properly mitigated, reducing the potential environmental impacts to a less than significant level. With implementation of MM-CUL-2, the project will have a less than significant impact with respect to the potential to disturb human remains. Implementation of MM-CUL-2 will ensure that any unanticipated finds will be properly treated in compliance with Public Resources Code Section 5097.98, CEQA Section 15064.5, and Health and Safety Code Section 7050.5. By ensuring proper treatment of unanticipated archaeological finds or human remains, implementation of the mitigation measures identified above would mitigate any potential direct impacts caused by construction or operation of the proposed project to cultural resources to less than significant. Further, construction and operation of the proposed project would not result in significant indirect impacts to unique cultural resources. All impacts would be reduced to less than significant after mitigation.

3.5 Energy

This section describes the existing energy conditions of the project site and vicinity, identifies associated regulatory requirements, and evaluates potential impacts related to implementation of the proposed Fenton Bridge Parkway Project (project).

A notice of preparation was circulated from May 22 to June 20, 2023. A total of 16 letters were received during this comment period. Comments received did not include anything regarding energy usage. See Appendix A, NOP and Scoping Comments, for a complete compilation of comments received in response to the Notice of Preparation.

3.5.1 Existing Conditions

Electricity

According to the U.S. Energy Information Administration (EIA), California used approximately 247,249,865 megawatt-hours of electricity in 2021 (EIA 2022). Electricity usage in California for different land uses varies substantially by the types of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Due to the state's energy efficiency building standards and efficiency and conservation programs, California's electricity use per capita in the residential and commercial sector is lower than any other state except Hawaii (EIA 2023a).

San Diego Gas & Electric (SDG&E) provides electricity to the Project. SDG&E supplies power to 3.6 million people, through 1.4 million electric meters, and across a 4,100 square-mile service area that includes San Diego County and southern Orange County (SDG&E 2021). According to the California Energy Commission, demand forecasts anticipate that approximately 22.7 billion kWh of electricity will be used in SDG&E's service area in 2024 (CEC 2023a).

Within San Diego County, annual electricity use in 2022 was approximately 20.2 billion kWh per year (CEC 2023b). SDG&E receives electric power from a variety of sources. According to the 2022 SDG&E Power Content Label, eligible renewable energy accounts for 44.5% of SDG&E's overall energy resources, with biomass and biowaste at 2.9%, solar at 28.0%, wind power at 13.9%, unspecified power[1] 0.8%, and natural gas at 54.4. (CEC 2023c).

Natural Gas

Natural gas is a combustible mixture of hydrocarbon compounds (primarily methane) used as a fuel source. The majority of the natural gas consumed in California is obtained from sources located outside the state and delivered through high-pressure transmission pipelines. Natural gas provides almost one-third of the state's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet.

According to the U.S. Energy Information Administration, California used approximately 2,092,612 million cubic feet of natural gas in 2021 (EIA 2023b). The majority of California's natural gas customers are residential and small commercial customers (core customers). These customers account for approximately 35% of the natural

[1] Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.

gas delivered by California utilities (CPUC 2021). Large consumers, such as electric generators and industrial customers (noncore customers), account for approximately 65% of the natural gas delivered by California utilities (CPUC 2021). CPUC regulates California natural gas rates and natural gas services, including in-state transportation over transmission and distribution pipeline systems, storage, procurement, metering, and billing. Most of the natural gas used in California comes from out-of-state natural gas basins. Biogas (e.g., from wastewater treatment facilities or dairy farms) is just beginning to be delivered into the gas utility pipeline systems; however, the State has adopted regulations requiring its development to reduce statewide emissions of methane by 40% below 2013 levels by 2030 (CPUC 2022).

SDG&E provides San Diego County and southern Orange County with natural gas service, encompassing approximately 4,100 square miles. Within San Diego County, gas consumption in 2022 was approximately 522 million therms, with 281 million therms for residential use and 241 million therms for non-residential use (CEC 2023d).

Petroleum

According to the U.S. Energy Information Administration, California used approximately 605 million barrels of petroleum in 2021, with the majority (511 million barrels) used for the transportation sector, (EIA 2023c). There are 42 U.S. gallons in a barrel, so this equates to a total daily use of approximately 14.4 million gallons of petroleum among all sectors and 12.2 million gallons for the transportation sector. Petroleum usage in California includes petroleum products such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel. At the federal and state levels, various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation - source air pollutants and greenhouse gas (GHG) emissions, and reduce vehicle miles traveled (VMT). Section 3.7.2, Relevant Plans, Policies, and Ordinances, discusses in more detail both federal and state regulations that would help increase fuel efficiency of motor vehicles and reduce GHG emissions. Market forces have driven the price of petroleum products steadily upward over time, and technological advances have made use of other energy resources or alternative transportation modes increasingly feasible.

3.5.2 Relevant Plans, Policies, and Ordinances

Federal

Energy Policy and Conservation Act

In 1975, Congress enacted the federal Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2012, new fuel economy standards for passenger cars and light trucks were approved for model years 2017 through 2021 (77 FR 62624–63200). Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Intermodal Surface Transportation Efficiency Act of 1991

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of intermodal transportation systems to maximize mobility and address national and local interests in air quality and energy. ISTEA contained factors that metropolitan planning organizations were to address in developing transportation

plans and programs, including some energy-related factors. To meet the new ISTEA requirements, metropolitan planning organizations adopted policies defining the social, economic, energy, and environmental values guiding transportation decisions.

Transportation Equity Act for the 21st Century

The Transportation Equity Act for the 21st Century was signed into law in 1998 and builds on the initiatives established in the ISTEA legislation. The act authorizes highway, highway safety, transit, and other efficient surface transportation programs. The act continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of transportation decisions. The act also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of intelligent transportation systems to help improve operations and management of transportation systems and vehicle safety.

Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased Corporate Average Fuel Economy standards for motor vehicles, the EISA includes the following other provisions related to energy efficiency:

- Renewable Fuel Standard (RFS) (Section 202)
- Appliance and Lighting Efficiency Standards (Sections 301–325)
- Building Energy Efficiency (Sections 411–441)

This federal legislation requires ever-increasing levels of renewable fuels (the RFS) to replace petroleum (EPA 2024). The U.S. Environmental Protection Agency is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several key ways that lay the foundation for achieving significant reductions in greenhouse gas (GHG) emissions from the use of renewable fuels, reducing imported petroleum, and encouraging the development and expansion of the renewable fuels sector in the United States. The updated program is referred to as “RFS2” and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline.
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- EISA established new categories of renewable fuel and set separate volume requirements for each one.
- EISA required the U.S. Environmental Protection Agency to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green" jobs.

State

California Environmental Quality Act

Appendix F of the California Environmental Quality Act (CEQA) Guidelines calls for discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

California Energy Commission

The CEC's Integrated Energy Policy Report set forth policies that would enable the state to meet its energy needs under the carbon constraints established in the 2006 Global Warming Solutions Act. The Integrated Energy Policy Report also provides a set of recommended actions to achieve these policies.

Warren–Alquist Act

The California Legislature passed the Warren–Alquist Act in 1974. The Warren–Alquist Act created the CEC. The legislation also incorporated the following three key provisions designed to address the demand side of the energy equation:

- It directed the CEC to formulate and adopt the nation's first energy conservation standards for both buildings constructed and appliances sold in California.
- The act removed the responsibility of electricity demand forecasting from utilities, which had a financial interest in high demand projections, and transferred it to a more impartial CEC.
- The CEC was directed to embark on an ambitious research and development program, with a particular focus on fostering what were characterized as non-conventional energy sources.

State of California Energy Action Plan

The CEC and CPUC approved the first State of California Energy Action Plan in 2003. The plan established shared goals and specific actions to ensure that adequate, reliable, and reasonably priced electrical power and natural gas supplies are provided and identified policies, strategies, and actions that are cost-effective and environmentally sound for California's consumers and taxpayers. In 2005, CEC and CPUC adopted a second Energy Action Plan to reflect various policy changes and actions of the prior 2 years.

At the beginning of 2008, the CEC and CPUC determined that it was not necessary or productive to prepare a new energy action plan. This determination was based in part on a finding that the state's energy policies have been significantly influenced by the passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (discussed below). Rather than produce a new energy action plan, the CEC and CPUC prepared an "update" that examines the state's ongoing actions in the context of global climate change.

Senate Bill 1078 (2002)

This bill established the California Renewables Portfolio Standard (RPS) Program and required that a retail seller of electricity purchase a specified minimum percentage of electricity generated by eligible renewable energy resources as defined in any given year, culminating in a 20% standard by December 31, 2017. These retail sellers include electrical corporations, community choice aggregators, and electric service providers. The bill relatedly required the CEC to certify eligible renewable energy resources, design and implement an accounting system to verify compliance with the RPS by retail sellers, and allocate and award supplemental energy payments to cover above-market costs of renewable energy.Senate Bills 107 (2006), X1-2 (2011), 350 (2015), and 100 (2018)

Senate Bill (SB) 107 (2006) accelerated the RPS established by SB 1078 by requiring that 20% of electricity retail sales be served by renewable energy resources by 2010 (not 2017). Additionally, SB X1-2 (2011) requires all California utilities to generate 33% of their electricity from eligible renewable energy resources by 2020. Specifically, SB X1-2 sets a three-stage compliance period: by December 31, 2013, 20% shall come from renewables; by December 31, 2016, 25% shall come from renewables; and by December 31, 2020, 33% shall come from renewables.

SB 350 (2015) requires retail seller and publicly owned utilities to procure 50% of their electricity from eligible renewable energy resources by 2030, with interim goals of 40% by 2024 and 45% by 2027.

SB 100 (2018) accelerated and expanded the standards set forth in SB 350 by establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024; 52% by December 31, 2027; and 60% by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 also states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon electricity resources does not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

Consequently, utility energy generation from nonrenewable resources is expected to be reduced based on implementation of the 60% RPS in 2030. Therefore, any project's reliance on nonrenewable energy sources would also be reduced.

Assembly Bill 1007 (2005)

AB 1007 (2005) required the CEC to prepare a statewide plan to increase the use of alternative fuels in California (State Alternative Fuels Plan). The CEC prepared the plan in partnership with the California Air Resources Board (CARB) and in consultation with the other state, federal, and local agencies. The plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

Assembly Bill 32 (2006) and Senate Bill 32 (2016)

In 2006, the Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. In 2016, the Legislature enacted SB 32, which extended the horizon year of the state's codified GHG reduction planning targets from 2020 to 2030, requiring California to reduce its GHG emissions to 40% below 1990 levels by 2030. In accordance with AB 32 and SB 32, CARB prepares scoping plans to guide the development of statewide policies and regulations for the reduction of GHG emissions. Many of the policy and regulatory concepts identified in the scoping plans focused on increasing energy efficiencies and the use of renewable resources, as well as reducing the consumption of petroleum-based fuels (such as gasoline and diesel). As such, the state's GHG emissions reduction planning framework creates co-benefits for energy-related resources. Additional information on AB 32 and SB 32 is provided in Section 3.7, Greenhouse Gases, of this environmental impact report.

Integrated Energy Policy Report

The CEC is responsible for preparing integrated energy policy reports that identify emerging trends related to energy supply, demand, and conservation; public health and safety; and maintenance of a healthy economy. The CEC's 2023 Integrated Energy Policy Report discusses the state's policy goals of decarbonizing buildings, ensuring energy reliability, decarbonizing the state's gas system, the state's energy demand forecast, and quantifying the benefits of the clean transportation program (CEC 2023e). SB 100 calls for California's electricity system to become 100% zero-carbon by 2045. CEC, CPUC, and CARB are working together to identify pathways to deeply decarbonize the state's electricity system in response to SB 100. The aim is to leverage California's clean electricity system to decarbonize, or remove carbon from, other portions of the state's energy system. Over time these policies and trends would serve to beneficially reduce the Project's GHG emissions profile and energy consumption as they are implemented.

Executive Order N-79-20

Executive Order (EO) N-79-20 (2020) sets the goal for the state that 100% of in-state sales of new passenger cars and trucks will be zero-emission by 2035. EO-N-79-20 also sets goals for transition to 100% zero-emission all medium- and heavy-duty vehicles by 2045, zero-emission drayage trucks by 2035, and zero-emission off-road vehicles and equipment by 2035, where feasible. Among other directives to further this EO, for passenger cars and trucks, the governor directed CARB to develop and propose regulations requiring increasing volumes of new zero-emission vehicles sold in the state towards the target of 100% of in-state sales by 2035. The governor also directed the Governor's Office of Business and Economic Development to develop a Zero-Emissions Vehicle Market Development Strategy, which was completed in February 2021 (OBED 2021). The EO also directs updates and assessments to ensure zero-emission vehicle infrastructure is in place to support the levels of electric vehicle adoption required by the order.

Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or SB 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meet its GHG emissions reduction mandates. As codified in California Government Code, Section 65080, SB 375 requires each metropolitan planning organization (including San Diego Association of Governments) to include a sustainable communities strategy in its regional transportation plan. The main focus of the sustainable communities strategy is to plan for growth in a fashion that will ultimately reduce GHG emissions, but the strategy is also a part of a bigger effort to

address other development issues within the general vicinity, including transit and vehicle miles traveled, which influence the consumption of petroleum-based fuels.

Local

SDG&E Individual Integrated Resource Plan

SDG&E's Conforming Portfolio identifies a need for approximately 700 gigawatt-hours of incremental renewable power in addition to the assumed increases in energy efficiency and behind-the-meter solar to meet the 2030 planning target (approximately 4% of the total energy in the portfolio) (SDG&E 2021). SDG&E's Conforming Portfolio demonstrates that the utility has reduced its GHG emissions in the early years of the planning period, reflecting its current position in relation to its RPS targets—in 2018, approximately 45% of its energy mix came from delivering renewable resources (compared to an RPS requirement of 29%). It has aggressively adopted energy storage and does not use coal resources. SDG&E is fully compliant with RPS and long-term contracting requirements. SDG&E continues its efforts to meet resource-specific renewable procurement mandates, as required, but does not expect to procure additional resources for RPS compliance purposes until after 2030. In 2021, SDG&E reported a 44.5% renewable energy mix for its 2021 SDG&E Power Mix and a 100% renewable energy mix for its 2021 SDG&E EcoChoice Mix (SDG&E 2022).

City of San Diego General Plan

The following policy contained in the Conservation Element of the 2008 City of San Diego General Plan (General Plan) (City of San Diego 2008) are is related to energy use, however, the General Plan is not binding on the CSU, which is a state agency (refer to Section 3.10, Land Use, for a consistency analysis related to goals and policies applicable to the project):

- CE-A.5. Employ sustainable or "green" building techniques for the construction and operation of buildings.

Climate Action Plan

The City Council adopted the 2022 Climate Action Plan (City's CAP) in August 2022. The City's CAP establishes a community-wide goal of net zero GHG emissions by 2035, and identifies the following six key strategies to achieve goals and targets of the plan (City of San Diego 2022):

1. Decarbonization of the Built Environment
2. Access to Clean and Renewable Energy
3. Mobility and Land Use
4. Circular Economy and Clean Communities
5. Resilient Infrastructure and Health Ecosystems
6. Emerging Climate Actions

Many of these goals and actions in the City's CAP would have the effect of reducing energy use. The City of San Diego evaluates GHG significance based on a project's consistency with the City's CAP using the CAP Consistency Checklist. The City's CAP is a local regulation and therefore is not binding on the CSU, which is a state agency. Nevertheless, because the City will ultimately own and operate the proposed project following its construction, and because the proposed project is located within the territorial limits of the City, an analysis of the

proposed project's consistency with the City's CAP is provided in Section 3.7 Greenhouse Gases for informational purposes. The proposed project was found to be consistent with the six key strategies of the CAP.

3.5.3 Significance Criteria

The significance criteria used to evaluate the project impacts to energy are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to energy would occur if the project would:

1. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
2. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

3.5.4 Impacts Analysis

Approach and Methodology

California Emissions Estimator Model (CalEEMod) Version 2022.1 (CAPCOA 2022) was used to estimate the potential project energy consumption during construction. Construction of the project would result in petroleum consumption primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details specific to construction and operation discussed in Section 3.2, Air Quality, specifically in the Approach and Methodology (Construction Emissions) subsection, are also applicable for the estimation of construction-related energy consumption.

Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Electricity

Construction Use

Pre-Cast and Cast-in-Place Construction Methods

Temporary electric power for as-necessary lighting and electronic equipment, such as computers, may be needed inside temporary construction trailers. However, the electricity used for such activities would be temporary and would have a negligible contribution to the proposed project's overall energy consumption. Impacts would be **less than significant**.

Operational Use

The operational phase would require electricity for lighting along the bridge. A **less than significant impact** would occur.

Natural Gas

Construction Use

Pre-Cast and Cast-in-Place Construction Methods

Natural gas is not anticipated to be required during project construction. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed below under the Petroleum subsection. Any minor amounts of natural gas that may be consumed as a result of project construction would be substantially less than that required for project operation and would have a negligible contribution to the proposed project's overall energy consumption. Impacts would be **less than significant**.

Operational Use

Natural gas consumption would not be required during operation. **No impact** would occur.

Petroleum

Construction Use

Pre-Cast and Cast-in-Place Construction Methods

Petroleum would be consumed throughout construction of the proposed project. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction, and vehicle miles traveled associated with the transportation of construction materials and construction worker commutes would also result in petroleum consumption. Heavy-duty construction equipment associated with construction activities and haul trucks involved in relocating dirt around the project site would rely on diesel fuel. Construction workers would travel to and from the project site throughout the duration of construction. It is assumed that construction workers would travel to and from the project site in gasoline-powered vehicles.

Diesel fuel consumption from construction equipment, haul trucks, and vendor trucks and the estimated gasoline fuel usage from worker vehicles was estimated by converting the total emissions from each construction phase to gallons using conversion factors for carbon dioxide (CO_2) to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton of CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton of CO_2 per gallon (The Climate Registry 2023). Calculations for equipment and vehicle fuel consumption for both the pre-cast and cast-in-place construction methods are provided in Table 3.5-1.

Table 3.5-1. Total Proposed Project Construction Petroleum Demand

Project	Off-Road Equipment (Diesel)	Haul Trucks (Diesel)	Vendor Trucks (Diesel)	Worker Vehicles (Gasoline)	Total
	Gallons				
Pre-Cast Construction Method					
Bridge Construction	54,380	3,424	37,865	5,855	101,524
Off-Site Improvements	6,783	781	80	388	8,032
Total	**61,163**	**4,204**	**37,945**	**6,243**	**109,556**

Table 3.5-1. Total Proposed Project Construction Petroleum Demand

Project	Off-Road Equipment (Diesel)	Haul Trucks (Diesel)	Vendor Trucks (Diesel)	Worker Vehicles (Gasoline)	Total
	Gallons				
Cast-in-Place Construction Method					
Bridge Construction	55,458	3,607	56,021	9,924	125,010
Off-Site Improvements	6,704	6,381	81	360	13,526
Total	**62,162**	**9,988**	**56,102**	**10,284**	**138,536**

Source: Appendix C.

As shown in Table 3.5-1, the proposed project is estimated to consume approximately 109,556 gallons of petroleum during the construction phase for the pre-cast construction method and approximately 138,536 gallons of petroleum during the construction phase for the cast-in-place construction method. In 2023, the total petroleum consumption within the County of San Diego was 1.6 billion gallons (CARB 2023). The proposed project would also be required to comply with CARB's Airborne Toxics Control Measures, which restrict heavy-duty diesel vehicle idling time to 5 minutes. Based on the above analysis, fuel use during construction would not be wasteful, inefficient, or unnecessary, and impacts would be **less than significant**.

Operational Use

Fuel consumption would not be required during operation. **No impact** would occur.

Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The proposed project would comply with any applicable state plans for renewable energy or energy efficiency to the extent required by law. The proposed project would result in temporary energy demand during construction. However, the proposed project would be subject to CARB's In-Use Off-Road Diesel Vehicle Regulation that applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the Best Achievable Control Technology requirements. Project construction would represent a "single-event" petroleum demand and would not require ongoing or permanent commitment of petroleum resources for this purpose. Overall, the project would not involve characteristics that require equipment that would be less energy-efficient than at comparable construction sites in the region or state. As such, impacts would be **less than significant**.

3.7.5 Cumulative Impacts

Would the project result in cumulatively considerable impacts with regard to energy?

Cumulative projects that could combine with the project's impacts, thereby exacerbating impacts in the cumulative study area, include any project that could result in wasteful, inefficient, or unnecessary use of energy. Future projects would be subject to CEQA and would require an energy analysis; consistency with existing plans and policies for renewable energy and energy efficiency; and implementation of control measures and mitigation, if necessary, to avoid wasteful, inefficient, or unnecessary consumption of energy resources. Project construction would represent a "single-event" energy demand and would not require ongoing or permanent commitment of energy resources. In addition, the project would result in a decrease in vehicle miles traveled, which would serve to reduce energy use on a long-term basis. Therefore, the proposed project is not anticipated to create a significant local or regional demand on energy that would result in a cumulative impact. The proposed project's potential cumulative impacts with respect to energy requirements and energy use efficiencies would be **less than significant**.

3.5.6 Summary of Impacts Prior to Mitigation

Impacts associated with energy consumption would **be less than significant**.

3.5.7 Mitigation Measures

No mitigation measures are required.

3.5.8 Level of Significance After Mitigation

Impacts associated with energy consumption would be **less than significant**.

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3.6 Geology and Soils

This section describes the existing geological conditions of the project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Fenton Parkway Bridge Project (project). A Paleontological Resources Technical Report was prepared by Dudek in October 2023 and is included herein as Appendix E.

A Notice of Preparation (NOP) was circulated from May 22, 2023, to June 20, 2023. A total of 16 letters were received during this comment period. Comments received on the NOP included requests for analysis of seismic risks. Please see Appendix A, NOP and Scoping Comments, for a complete compilation of comments received on the NOP.

3.6.1 Existing Conditions

Regional Physiography and Geology

The project site is located within the Peninsular Ranges geomorphic province, which is bordered on the west by the coastal plain and on the east by the Salton Basin. The province stretches from the Los Angeles basin southward to the tip of Baja California and is characterized by a series of northwest-trending mountain ranges separated by subparallel fault zones. The province is composed of ranges of steep-sloped hills and mountains separated by intermediate valleys that are generally of small extent (Weber 1963).

Topography

The topography of the project site includes the San Diego River channel and two adjacent relatively flat to gently sloping bluff areas on the north and south sides of the river. The river channel bottom is approximately 400 feet wide, with a steep, approximately 20-foot-high river bank on the south side of the river and a less steep, approximately 10-foot-high river bank on the north side, which transitions into a gentle, approximately 10-foot-high slope up to River Park Road. A south-trending incised drainage, which empties into the river, is located on the north side of the river.

Surficial Soils

Based on the National Resource Conservation Services online mapping tool, the project site is underlain by Riverwash surficial soils, which consist of gravelly coarse sand to a depth of 6 inches and stratified, very gravelly coarse sand to gravelly sand to a depth of 60 inches. These soils are excessively drained and have negligible runoff (USDA NRCS 2023).

Stratigraphy

The project site is located within the coastal plain transected by the west-flowing San Diego River drainage, known as Mission Valley. The site is located on sediments within and adjacent to the San Diego River. The proposed project site is underlain by young (Holocene and late Pleistocene) alluvial flood plain deposits (Figure 3.6-1, Geologic Map) (CGS 2005).

Paleontological Resources

Geological Maps and Literature Review

Published geological maps (Kennedy and Tan 2008) and published and unpublished reports were reviewed to identify geological units on the site and determine their paleontological sensitivity. The project site lies within the Peninsular Ranges Geomorphic Province (CGS 2002). This province extends from the tip of the Baja California Peninsula to the Transverse Ranges (the San Gabriel and San Bernardino Mountains) and includes the Los Angeles Basin, offshore islands (Santa Catalina, Santa Barbara, San Nicholas, and San Clemente), and continental shelf. The eastern boundary is the Colorado Desert Geomorphic Province (CGS 2002; Morton and Miller 2006). The ancestral Peninsular Ranges were formed by uplift of plutonic igneous rock resulting from the subduction of the Farallon Plate underneath the North American Plate during the latter portion of the Mesozoic era (approximately 125 to 90 million years ago [mya]) (Abbott 1999).

According to the published geological mapping at a scale of 1:100,000 by Kennedy and Tan (2008), the majority of the project site is mapped as late Holocene to late Pleistocene (Present day to approximately 129,000 years ago) young alluvial flood plain deposits (map unit Qya), and the northern terminus is mapped as late to middle Pleistocene (approximately 11,700 to 774,000 years ago) old alluvial flood plain deposits (map unit Qoa).

In his compilation of late Quaternary Vertebrate fossils from California, Jefferson (1991) reported numerous vertebrate fossil localities from late Pleistocene terrestrial deposits in San Diego County. Localities nearby the project site, from the City of San Diego (City), include the following taxa: rodents (*Thomomys* sp., *Perognathus* sp., *Peromyscus* sp., *Neotoma* sp.), rabbit (Leporidae), bison (cf. *Bison* sp.), mammoth (*Mammuthus* sp.), horse (*Equus occidentalis*), and camel (Camelidae).

Paleontological Records Search

A records search request was sent to the San Diego Natural History Museum on August 21, 2023. The purpose of the museum records search is to determine whether there are any known fossil localities in or near the project site, identify the sensitivity of geological units present within the project site, and aid in determining whether a paleontological mitigation program is warranted to avoid or minimize potential adverse effects of construction on paleontological resources.

The records search results were received on September 01, 2023. No records of fossil localities were found within the boundaries of the project site; however, 33 fossil localities were recorded within 1 mile of the project site. The majority of these localities were from the San Diego Formation, Mission Valley Formation, Stadium Conglomerate, and Friars Formation, which are not expected to be impacted as a result of the earthwork for the proposed project. Of the 33 fossil localities, 5 are from old alluvial plan deposits within the same sedimentary deposits as the project site. Of those 5, 1 was from the San Diego Gas & Electric substation and 4 were from the San Diego State University (SDSU) Mission Valley Campus development located approximately 0.5 miles north-northeast of the project site. This work was recently completed on the SDSU Mission Valley Campus, and paleontological monitoring resulted in several documented localities and recoveries of a partial bison skull, a partial camel jaw, remains of ground sloth and horse, and microvertebrate remains of lizards, snakes, birds, shrews, rodents, and rabbits (SDNHM 2023). The records search results are summarized in below in Table 3.6-1.

Table 3.6-1. San Diego Natural History Museum Fossil Localities Near the Project Site

Locality Number	Location	Formation	Elevation (ft amsl)
7668	SDG&E Mission Substation	unnamed alluvial deposit	373
8589	SDSU Mission Valley	unnamed nonmarine deposit	70
8590	SDSU Mission Valley	unnamed nonmarine deposit	80
8591	SDSU Mission Valley	unnamed nonmarine deposit	83
8592	SDSU Mission Valley	unnamed nonmarine deposit	91

Note: ft amsl = feet above mean sea level; SDG&E = San Diego Gas & Electric; SDSU = San Diego State University.

Paleontological Field Survey

Dudek Paleontologist Javier Hernandez and Archaeologist Matthew DeCarlo conducted an intensive pedestrian survey of the project site on May 26, 2023, and June 30, 2023. The survey was conducted to determine if any surficial paleontological resources are present within the project site and confirm geological mapping. The survey utilized standard paleontological survey procedures and consisted of systematic surface inspection of exposed geological units with moderate or high paleontological resource sensitivity. The ground surface was examined for the presence of exposed surficial fossils. Ground disturbances such as burrows and eroded hillsides were also visually inspected for exposed fossils and sediments.

The project site is situated with the northwest terminus at the intersection of Northside Drive and Fenton Parkway and the southern terminus of the bridge at Camino Del Rio North. Dense vegetation consisting of chapparal and tall grasses covered a majority of the project footprint. The area along the northern boundary adjacent to Fenton Parkway was heavily disturbed and shows signs of complete grading and leveling. Gravelly sandstone, pebbles, and cobble were present. The team attempted to survey south of the graded area but found that the remainder of the project site was covered in dense vegetation surrounding the San Diego River corridor. The team attempted to access the proposed bridge footprint from the southern extent adjacent to Camino Del Rio North, but the terrain was extremely steep and densely vegetated, preventing access. The southern proposed temporary staging area was traversable but completely covered with vegetation providing low ground visibility. No paleontological resources were observed during the pedestrian survey.

Geologic Hazards and/or Soil Constraints

The City of San Diego General Plan, Public Facilities, Services, and Safety Element classifies the project area as a low to moderate relative risk area (City of San Diego 2022). This classification is based on the San Diego Safety Study (City of San Diego 2008a), which is a set of geologic hazard maps and associated tables used to correlate acceptable risk of various land uses with seismic (and geologic) conditions identified for the site.

Slope Failures and/or Mudflows and Landslides

Slope failures, mudflows, and landslides are common in areas where steep hillsides and embankments are present and have a high potential to slough during earthquakes and/or excessive rain events where the soils become saturated and dislodged and slide downhill. The southern bridge abutment site is an area of steep slopes (25% or greater) (City of San Diego 2008b).

Expansive and/or Compressible Soils

Expansion and contraction of soil volume can occur when expansive soils undergo alternating cycles of wetting and drying. Wetting causes soils to expand or swell, while drying periods cause soils to compress or shrink. During these cycles, the volume of soil can change significantly. Structural damage to buildings and infrastructure can occur if the potentially expansive soils are not anticipated in project design and development. The project site is underlain primarily by sandy alluvial floodplain deposits, alluvium, colluvium, and conglomerate. Based on the sandy nature of these sediments, the potential for soil expansion is low.

Soil Settlement and/or Collapse

Soil settlement or differential settlement can occur if structures are built on low-strength foundation materials (including imported fill) or if improvements straddle the boundary between different types of subsurface materials (e.g., a boundary between native material and fill). Although differential settlement generally occurs slowly enough that its effects are not dangerous to site inhabitants, it can cause significant structural damage over time. Settlement or collapse has the potential to occur if buildings or other improvements are built on materials that are not suited for foundations of structures. Collapsible soils generally consist of loose, dry, low-density materials that collapse and compact under the addition of water or excessive loading. These soils are distributed throughout the southwestern United States, specifically in areas of young alluvial fans, debris flow sediments, and loess (wind-blown sediment) deposits. Based on the presence of young alluvial fan deposits at the site, there is potential for soil settlement and/or collapse.

Land Subsidence

Subsidence is primarily associated with groundwater extraction, where large amounts of groundwater are pumped out of a location and water does not replenish the area quickly enough, which causes a void in the earth above the groundwater aquifer and wells to collapse and sink. Other effects of subsidence include changes in the gradients of stormwater and sanitary sewer drainage systems in which the flow is gravity-driven. Subsidence can also occur as a result of oil and gas extraction or peat loss. The project site is not located in an area of known subsidence due to groundwater pumping, peat loss, or oil extraction (USGS 2023).

Seismic Hazards

Regional Seismicity and Faults

Geologic faults in the region of the project site are the result of plate boundary interactions between the lithospheric Pacific and North American plates. The San Andreas, San Jacinto, and Imperial Fault Zones are some of the most active in the region, all of which are located in the Imperial Valley. Northwest-striking faults to the northwest, including the Newport-Inglewood-Rose Canyon and Elsinore Fault Zones, cause a significantly smaller portion of fault movement in the region. Offshore faults that also produce smaller amounts of movement in the region include the Coronado Bank, San Diego Trough, and San Clemente Fault Zones. The major active faults in the region are listed in Table 3.6-2 and depicted in Figure 3.6-2, Fault Map.

Table 3.6-2. Regional Major Active Faults

Fault	Approximate Distance From Project Site (miles)	Maximum Probable Earthquake
Newport-Inglewood-Rose Canyon Fault Zone	4	7.2
Elsinore Fault Zone	36	7.0

Table 3.6-2. Regional Major Active Faults

Fault	Approximate Distance From Project Site (miles)	Maximum Probable Earthquake
San Miguel-Vallecitos Fault Zone (North Baja)	34	6.9
San Jacinto Fault Zone	58	6.8
Southern San Andreas Fault Zone	85	7.2
Offshore		
Coronado Bank Fault Zone	16	7.6
San Diego Trough Fault Zone	25	7.5
San Clemente Fault Zone	53	7.7

Sources: CGS 2023a; City of San Diego 2015.

Holocene active faults (also referred to as active faults) are faults that have had evidence of movement within the last 11,700 years (Holocene). Holocene active faults have the greatest risk of fault rupture hazards and are potential sources of ground shaking. Older faults that have not had movement within the last 11,700 years (i.e., Quaternary or potentially active faults) are less likely to cause ground shaking as they are less active. Select Holocene active faults are mapped by the State of California within Alquist-Priolo Special Studies Zones, or Earthquake Fault Zones. Any development within an Earthquake Fault Zone is required to have building setbacks from the trace (the intersection of a fault with the ground surface) of an active fault to reduce the risk of damage in the event of significant ground shaking.

The nearest Holocene active fault and Alquist-Priolo Earthquake Fault Zone is the Rose Canyon Fault, located approximately 4 miles west of the project site (Figure 3.6-2) (CGS 2021, 2023a). The Rose Canyon Fault is a component of a fault zone that includes the Newport-Inglewood Fault to the north at Long Beach and the Descanso Fault to the south, offshore of Baja California, Mexico, and thus is named the Newport-Inglewood-Rose Canyon Fault Zone. Much of this extended fault zone is located in the offshore area between Orange County and Oceanside and between San Diego Bay and northern Baja California. There was a historic earthquake event on the Newport-Inglewood section of the fault in 1933 (Long Beach earthquake, Magnitude [M] 6.3) that caused considerable damage. The onshore portion of the Rose Canyon Fault Zone extends along the northeast flank of Mount Soledad and continues southward along the eastern margins of Mission Bay. Detailed trenching along the main trace of the Rose Canyon Fault in Rose Creek demonstrated Holocene displacement and a slip rate on the order of 1 to 2 millimeters/year. The portion of the fault zone between Mt. Soledad and Balboa Avenue is designated as an Alquist-Priolo Earthquake Fault Zone. Between Mission Bay and San Diego Bay, the zone widens and diverges into the Spanish Bight, Coronado, and Silver Strand Faults, which continue offshore toward Mexico (City of San Diego 2015). No other known active faults are located on or near the project site (CGS 2023a).

Several Quaternary faults (11,700 to 1.6 million years) are located in the vicinity of the project site, including the Mission Gorge, Texas Street, and La Nacion faults (Figure 3.6-2). The Mission Gorge Fault is a concealed, approximately located fault that follows the course of the San Diego River in the vicinity of the site and thus underlies the project site (CGS 2023a). This fault is not considered active or seismogenic (i.e., capable of generating an earthquake). Moreover, there is some question whether the Mission Gorge Fault exists. This fault is an inferred fault not included on all regional fault maps because of the uncertainty of the presence or absence of a fault within the San Diego River Valley. Some very early geologic maps of San Diego County had postulated concealed faults extending approximately east–west along the general trend of the San Diego River in Mission Valley. A fault had been hypothesized to account for the apparent mismatches of the Tertiary sedimentary

formations from the north to the south side of the valley. The presence of a fault in Mission Valley (i.e. the Mission Gorge Fault) was debunked by some, as it was explained that the south dipping formations have thickness differences, which do not indicate a fault. It is possible that the ancestral course of the river may have followed the trend of what are presently deeply buried bedrock faults or fractures. However, within the present tectonic setting, an east–west-trending deeply buried fault, if present, would not be accumulating strain and would not be capable of an earthquake (City of San Diego 2015).

The Texas Street Fault, located approximately 1.7 miles southwest of the project site (Figure 3.6-2), is considered a potentially significant fault by the California Geological Survey (CGS 2023a), but is considered "potentially active, inactive, presumed inactive, or activity unknown" by the City (City of San Diego 2008b). The Texas Street Fault is a normal fault bounding a down-dropped graben indicative of crustal extension. Movement on the fault diminishes to the north and is not evident beyond the northern edge of Mission Valley. Some researchers posit this fault is related to wrenching imposed by movement on the right-lateral, strike-slip Rose Canyon Fault. Given the north–south orientation of the fault, it is likely that this fault is a right-lateral, strike-slip fault related to the Rose Canyon Fault Zone. Typically, building setbacks are not required on inactive or potentially active faults (Geocon 2015).

The most prominent of the Quaternary faults in the vicinity of the project site is the La Nacion Fault, located approximately 2.0 miles southeast of the project site (City of San Diego 2022). The fault is a 15- to 20-mile-long zone of down-to-the-west normal faults that forms the eastern boundary of the San Diego Embayment, a Pliocene-Pleistocene nested graben that is bounded on the east by the La Nacion Fault and on the west by the east-side-down Point Loma Fault, west of San Diego Bay. A geomorphic analysis of the fault zone found little evidence at the surface for the fault extending north of Alvarado Canyon. Researchers suggest a total vertical offset of 1,600 feet, a Pleistocene offset of 390 feet, and a possible 3-foot displacement of Holocene alluvium. However, radiocarbon dating of unfaulted alluvium shows that the most recent movement on the La Nacion Fault is older than Holocene. Based on these relationships, it is likely that the fault last moved in the late Pleistocene, making this fault potentially active and a less significant seismic hazard than the major active faults in the region. Based on the fault length, the maximum earthquake magnitude is estimated at M 6.7. It is uncertain if the La Nacion Fault is capable of a seismogenic rupture if it moves coseismically when the Rose Canyon Fault ruptures (City of San Diego 2015).

Being situated in such proximity to large faults creates a significant seismic risk to the City. Damage to structures and improvements caused by a major earthquake will depend on the distance to the epicenter, the magnitude of the event, the underlying soil, and the quality of construction. The severity of an earthquake can be expressed in terms of both intensity and magnitude. Earthquakes are measured on a scale of magnitude and class of magnitude (see Table 3.6-3). The majority of earthquakes that occur each year are minor and do not cause significant damage to structures or buildings.

Table 3.6-3. Earthquake Magnitude and Class

Magnitude	Class	Physical Effects	Occurrences each year (approximately and can vary)
2.5 or less	Minor	Usually not felt, but can be recorded by seismographs	900,000
2.5 to 5.4	Light	Often felt, but only minor damages	30,000
5.5 to 6.0	Moderate	Slight damages to structures	500
6.1 to 6.9	Strong	Potential for significant damages	100

Table 3.6-3. Earthquake Magnitude and Class

Magnitude	Class	Physical Effects	Occurrences each year (approximately and can vary)
7.0 to 7.9	Major	Major earthquake event, significant damages to structures and life	20
8.0 or greater	Great	Total destruction of structures near epicenter and high potential for loss of life	One every 5 to 10 years

Source: UPSeis 2023.

In recent history, San Diego has experienced several thousand minor earthquakes and a handful of moderate to major earthquakes. Table 3.6-4 includes a brief list of moderate (M 5.5) to great (M 8.0+) earthquakes that have occurred in San Diego (or been felt from nearby epicenters).

Table 3.6-4. Earthquakes Near San Diego, California

Magnitude	Date	Epicenter Location
From 2010 to Present		
5.5	March 28, 2016	San Felipe, Baja California, Mexico
6.3	December 14, 2012	Avalon, California
5.5	August 26, 2012	Brawley, California
7.2	April 4, 2012	Guadalupe Victoria, Baja California, Mexico
5.5	July 7, 2010	Borrego Springs, California
5.8	June 15, 2010	Seeley, California
From 2000–2010		
5.9	December 30, 2009	23 miles south of Calexico, California
7.2	June 14, 2005	90 miles off the Coast of Northern California (tsunami warning for Southern California)
5.6	June 12, 2005	Near Anza, California
Prior to 2000		
6.6	January 17, 1994	Northridge, California
7.3	June 28, 1992	Landers, California
6.2	November 23, 1987	Westmoreland, California
5.9	October 1, 1987	Pasadena, California
6.0	July 8, 1986	Palm Springs, California
6.6	February 9, 1971	San Fernando, California
6.8	February 9, 1956	Ensenada, California
7.1	May 18, 1940	Imperial Valley, California
7.1	December 31, 1934	Colorado River delta, Mexico
6.4	March 10, 1933	Southern California
6.3	June 22, 1915	Imperial Valley, California
5.75	October 23, 1894	San Diego, California
6.0	May 27, 1862	San Diego, California
6.9	December 8, 1812	Southern California
6.5	November 22, 1800	Oceanside, California (Rose Canyon Fault)

Sources: San Diego Union Tribune 2009; Earthquake Track 2023.

Liquefaction and Lateral Spreading

Soil liquefaction occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and take on the characteristics of a fluid, thus becoming like quicksand. Factors determining the liquefaction potential are soil type, the level and duration of seismic ground motions, the type and consistency of soils, and the depth to groundwater. Liquefaction generally occurs at depths of less than 50 feet in soils that are young (Holocene-age), saturated, and loose (CGS 2008). Soils that are most susceptible to liquefaction are clay-free deposits of sands and silts, as well as unconsolidated alluvium. The secondary effects of liquefaction include settlement, reduced soil shear strength, lateral spreading, and global instability. Seismic settlement can occur in dry sands as well. Based on the City Seismic Safety Study (City of San Diego 2008a), the project site is located in an area with a high potential for liquefaction to occur.

Lateral spreading is lateral movement of sediments on an unsupported slope in areas susceptible to liquefaction. Because the banks of the San Diego River in the proposed construction area are underlain by liquefaction-prone sediments, lateral spreading may occur in the event of strong seismically induced ground shaking.

Tsunami and Seiche

A tsunami is a sea wave generated by a submarine earthquake, landslide, or volcanic action. The project site is outside of the tsunami inundation line area and is not mapped by the California Department of Conservation to be in a tsunami inundation area (CGS 2023b). A seiche is an earthquake-induced wave in a confined body of water, such as a lake, reservoir, or bay. Large volumes of water that might be conducive to a seiche are only present in the San Diego River following unusually heavy precipitation events. As a result, the potential for seiches to occur at the project site is low.

3.6.2 Relevant Plans, Policies, and Ordinances

Federal

Occupational Safety and Health Administration Regulations

Excavation and trenching are among the most hazardous construction activities. The Occupational Safety and Health Administration (OSHA) Excavation and Trenching standard, Title 29 of the Code of Federal Regulations, Part 1926.650, covers requirements for excavation and trenching operations. OSHA requires that all excavations in which employees could potentially be exposed to cave-ins be protected by sloping or benching the sides of the excavation, supporting the sides of the excavation, or placing a shield between the side of the excavation and the work area.

State

The statewide minimum public safety standard for mitigation of earthquake hazards (as established through the California Building Code [CBC], Alquist–Priolo Earthquake Fault Zoning Act, and the Seismic Hazards Mapping Act) is that the minimum level of mitigation for a project should reduce the risk of ground failure during an earthquake to a level that does not cause the collapse of buildings for human occupancy; in most cases, preventing or avoiding the ground failure itself is not required. It is not feasible to design all structures to completely avoid damage in worst-case earthquake scenarios. Accordingly, regulatory agencies have generally defined an “acceptable level” of risk as that which provides reasonable protection of the public safety, although it does not necessarily ensure

continued structural integrity and functionality of a project (14 CCR 3721[a]). Nothing in these acts, however, precludes lead agencies from enacting more stringent requirements, requiring a higher level of performance, or applying these requirements to developments other than those that meet the acts' definitions of "project."

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (California Public Resources Code, Division 2, Chapter 7.5) was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The purpose of this act is to prohibit the location of most structures for human occupancy across the traces of active faults and thereby mitigate the hazard of fault rupture. In accordance with this act, the state geologist established regulatory zones, called Earthquake Fault Zones, around the surface traces of active faults and has published maps showing these zones. Earthquake Fault Zones are designated by the California Geological Survey and are delineated along traces of faults where mapping demonstrates surface fault rupture has occurred within the past 11,700 years. Construction within these zones cannot be permitted until a geologic investigation has been conducted to prove that a building planned for human occupancy will not be constructed across a Holocene-active fault. These types of site evaluations address the precise location and recency of rupture along traces of the faults and are typically based on observations made in trenches excavated across fault traces.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (California Public Resources Code, Chapter 7.8, Sections 2690-2699.6) directs the California Department of Conservation to protect the public from earthquake-induced liquefaction and landslide hazards (note that these hazards are distinct from the fault surface rupture hazard regulated by the Alquist-Priolo Earthquake Fault Zoning Act of 1972). This act requires the state geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones (i.e., zones of required investigation). Before a development permit may be granted for a site within a seismic hazard zone, a geotechnical investigation of the site must be conducted and appropriate mitigation measures incorporated into the proposed project design. Evaluation and mitigation of potential risks from seismic hazards within zones of required investigation must be conducted in accordance with the California Geological Survey, Special Publication 117A, adopted March 13, 1997, by the State Mining and Geology Board, as updated in 2008 (CGS 2008).

To date, Seismic Hazard Zone Maps have been prepared for portions of Southern California and the San Francisco Bay Area; however, no seismic hazard zones have yet been delineated for the project area (i.e., the La Jolla U.S. Geological Survey 7.5-minute quadrangle). As a result, the provisions of the Seismic Hazards Mapping Act would not apply to the proposed project.

California Building Code

The CBC has been codified in the California Code of Regulations as Title 24, Part 2. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 to be enforceable. The purpose of the CBC is to establish minimum standards to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, and general stability by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all building and structures within its jurisdiction.

The 2022 edition of the CBC is based on the 2021 International Building Code published by the International Code Conference. The 2022 CBC contains California amendments based on the American Society of Civil Engineers Minimum Design Standards 7-16, which provides requirements for general structural design and includes means for determining earthquake loads and other loads (such as wind loads) for inclusion into building codes. The provisions of the CBC apply to the construction, alteration, movement, replacement, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

The CBC uses data on frequency of earthquakes, as well as locations of fault zones, in order to set forth requirements for new developments to be prepared for earthquake events. The earthquake design requirements also take into account the occupancy category of the structure, site class, soil classifications, and various other seismic coefficients, which are used to determine a Seismic Design Category (SDC) for a project. The SDC is a classification system that combines the occupancy categories with the level of expected ground motions at the site; classifications range from SDC A (very small seismic vulnerability) to SDC E/F (very high seismic vulnerability and near a major fault). Design specifications are then determined according to the SDC.

California Occupational Safety and Health Administration Regulations

In California, California OSHA (Cal/OSHA) has responsibility for implementing federal rules relevant to worker safety, including slope protection during construction excavations. Cal/OSHA's requirements are more restrictive and protective than federal OSHA standards. Title 8 of the California Code of Regulations, Chapter 4, Division of Industrial Safety, covers requirements for excavation and trenching operations, as well as safety standards whenever employment exists in connection with the construction, alteration, painting, repairing, construction maintenance, renovation, removal, or wrecking of any fixed structure or its part.

Paleontological Resources

California Environmental Quality Act

Paleontological resources are limited, nonrenewable resources of scientific, cultural, and educational value and are afforded protection under state laws and regulations, namely California Public Resources Code, Section 21000 et seq., and California Public Resources Code, Section 5097.5. Paleontological resources are explicitly afforded protection by the California Environmental Quality Act (CEQA), specifically in Section VII(f) of CEQA Guidelines Appendix G, the Environmental Checklist Form, which addresses the potential for adverse impacts to "unique paleontological resource[s] or site[s] or…unique geological feature[s]" (14 CCR 15000 et seq.). This provision covers scientifically significant fossils—remains of species or genera new to science, for example, or fossils exhibiting features not previously recognized for a given animal group—and localities that yield fossils significant in their abundance, diversity, preservation, and so forth. Further, CEQA provides that, generally, a resource shall be considered "historically significant" if it has yielded or may be likely to yield information important in prehistory or history (14 CCR 15064.5[a][3][D]). Paleontological resources would fall within this category. The California Public Resources Code, Chapter 1.7, Sections 5097.5 and 30244, also regulates removal of paleontological resources from state lands, defines unauthorized removal of fossil resources as a misdemeanor, and requires mitigation of disturbed sites.

The Board of Trustees of the California State University is the CEQA lead agency for the proposed project. CEQA Guidelines require a determination as to whether a proposed project would directly or indirectly destroy a unique paleontological resource or site. If a project would destroy a unique paleontological resource or site, a paleontological assessment and mitigation and monitoring plan should be designed and implemented.

California Public Resources Code, Section 5097.5

California Public Resources Code, Section 5097.5 regulates removal of paleontological resources from state lands, defines unauthorized removal of fossil resources as a misdemeanor, and requires mitigation of disturbed sites. The code states that:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on [lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof], except with the express permission of the public agency having the jurisdiction over the lands. Violation of this section is a misdemeanor.

California Code of Regulations

Two sections of the California Code of Regulations (14 CCR Division 3, Chapter 1), applicable to lands administered by State Parks, address paleontological resources:

Section 4307: Geological Features states, "No person shall destroy, disturb, mutilate, or remove earth, sand, gravel, oil, minerals, rocks, paleontological features, or features of caves."

Section 4309: Special Permits states, California Department of Parks and Recreation "may grant a permit to remove, treat, disturb, or destroy plants or animals or geological, historical, archaeological or paleontological materials; and any person who has been properly granted such a permit shall to that extent not be liable for prosecution for violating the foregoing."

Local

San Diego Municipal Code

The San Diego Municipal Code and the CBC require the preparation of a geotechnical investigation report in accordance with the criteria in San Diego Municipal Code Sections 145.1801 and 145.1803 for projects within the City (City of San Diego 2018). The City uses the San Diego Seismic Safety Study (City of San Diego 2008a) to evaluate the relative hazards of a site. Geotechnical reports for projects must include hazards identified in the Seismic Safety Study maps and the Alquist-Priolo Earthquake Fault Zoning Act of 1972.

San Diego Public Facilities, Services, and Safety Element

The fundamental objective of the seismic safety policies is to reduce the risk of hazard resulting from future seismic and related events. The following goals are included in the Seismic Safety chapter of the Public Facilities, Services, and Safety Element of the City of San Diego General Plan (City of San Diego 2022):

- Protection of public health and safety through abated structural hazards and mitigated risks posed by seismic conditions.
- Development that avoids inappropriate land uses in identified seismic risk areas.

The following policies are included in the Seismic Safety chapter of the element (City of San Diego 2022):

PF-Q.1. Protect public health and safety through the application of effective seismic, geologic and structural considerations.

a. Ensure that current and future community planning and other specific land use planning studies continue to include consideration of seismic and other geologic hazards. This information should be disclosed, when applicable, in the California Environmental Quality Act (CEQA) document accompanying a discretionary action.
b. Maintain updated citywide maps showing faults, geologic hazards, and land use capabilities, and related studies used to determine suitable land uses.
c. Require the submission of geologic and seismic reports, as well as soils engineering reports, in relation to applications for land development permits whenever seismic or geologic problems are suspected.
d. Utilize the findings of a beach and bluff erosion survey to determine the appropriate rate and amount of coastline modification permissible in the City.
e. Coordinate with other jurisdictions to establish and maintain a geologic "data bank" for the San Diego area.
f. Regularly review local lifeline utility systems to ascertain their vulnerability to disruption caused by seismic or geologic hazards and implement measures to reduce any vulnerability.
g. Adhere to state laws pertaining to seismic and geologic hazards.

PF-Q.2. Maintain or improve integrity of structures to protect residents and preserve communities.

a. Abate structures that present seismic or structural hazards with consideration of the desirability of preserving historical and unique structures and their architectural appendages, special geologic and soils hazards, and the socio-economic consequences of the attendant relocation and housing programs.
b. Continue to consult with qualified geologists and seismologists to review geologic and seismic studies submitted to the City as project requirements.
c. Support legislation that would empower local governing bodies to require structural inspections for all existing pre-Riley Act (1933) buildings, and any necessary remedial work to be completed within a reasonable time.

City of San Diego Guidelines for Paleontology

Under the City's Guidelines for Paleontology (City of San Diego 2022), which are included herein for informational purposes, and in compliance with the California Environmental Quality Act: Significance Determination Thresholds for Paleontology (City of San Diego 2022), specific policies have been created to reduce impacts to paleontological resources, as follows: "Monitoring is always required when grading on a fossil recovery site or near a fossil recovery site in the same geologic deposit/formation/ rock unit as the project site as indicated on the Kennedy Maps. Monitoring may be required for shallow grading (i.e., <10ft) when a site has previously been graded and/or unweathered geologic deposits/formations/rock units are present at the surface. Monitoring is not required when grading documented or undocumented artificial fill" (City of San Diego 2022). Additionally, the City

outlines specific grading thresholds for required paleontological monitoring in rock units with high, moderate, and zero-low paleontological resource sensitivity, as follows (City of San Diego 2022):

- High paleontological sensitivity: monitoring required if more than 1000 cubic yards are to be removed and excavations are 10 feet or greater in depth.
- Moderate paleontological sensitivity: monitoring required if more than 2000 cubic yards are to be removed and are greater than 10 feet in depth.
- Zero-low paleontological resource sensitivity: monitoring not required.

3.6.3 Significance Criteria

The significance criteria used to evaluate the project impacts to geology and soils are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to geology and soils would occur if the project would:

1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
    a. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of as known fault. Refer to Division of Mines and Geology Special Publication 42.
    b. Strong seismic ground shaking.
    c. Seismic-related ground failure, including liquefaction.
    d. Landslides.
2. Result in substantial soil erosion or the loss of topsoil.
3. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
4. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.
5. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.
6. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

3.6.4 Impacts Analysis

Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

Rupture of a known earthquake fault, 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.

Pre-Cast and Cast-in-Place Construction Methods

The closest Alquist-Priolo Earthquake Fault Zone to the project site is located along the Rose Canyon Fault portion of the Newport-Inglewood-Rose Canyon Fault Zone, approximately 4 miles west of the project site (Figure 3.6-2). No other known active faults are located on or near the project site. As a result, surface fault rupture is not anticipated at the site. In addition, construction and operation of the proposed bridge would not directly or indirectly cause rupture of a known earthquake fault. **No significant impacts** would occur for either construction method.

Strong seismic ground shaking?

Pre-Cast and Cast-in-Place Construction Methods

As discussed in Section 3.6.1, Existing Conditions, the project site is located in a seismically active region of California, which is characterized by numerous active faults, including the Newport-Inglewood-Rose Canyon, Elsinore, San Jacinto, San Andreas, San Clemente, San Diego Trough, and Coronado Bank Fault Zones. The Newport-Inglewood-Rose Canyon Fault Zone, which traverses San Diego Bay, is located approximately 4 miles west of the site. As a result, the proposed bridge would be susceptible to strong seismic shaking as a result of an earthquake on these nearby and regional faults. In addition, the bridge would be constructed in sediments susceptible to liquefaction and associated lateral spreading. In the absence of proper geotechnical engineering, differential settlement, lateral spreading, and liquefaction-induced ground failure could result in damage to the proposed bridge, realigned storm drain, and adjoining roadway improvements on the north and south sides of the bridge during severe seismically induced ground shaking.

However, the proposed bridge would be designed and constructed in accordance with the recommendations of a project-specific geotechnical report and signed by a California Geotechnical Engineer and/or California Certified Engineering Geologist during final project design. The approach roadways and bridge would be designed in accordance with applicable City and State design standards. The structural, geotechnical, and civil design of the project to current agency standards would eliminate potential hazards in areas susceptible to liquefaction, and lateral spreading, and the project would be engineered to minimize seismic related impacts.

The intent of project design is to minimize geologic and seismic hazards with proper engineering to reduce potential impacts. In the even that additional measures are necessary, ground improvements such as vibro-replacement stone columns, cement deep soil mixing, and/or compaction grouting may be necessary to reduce the potential for liquefaction-induced secondary effects, such as settlement and instability of sloping ground.

Construction and operation of proposed bridge would not increase the potential effects of earthquakes or seismically induced ground failure to occur, including the risk of loss, injury, or death. Therefore, the impact of the proposed project related to seismic hazards for either construction method would be **less than significant**.

Seismic-related ground failure, including liquefaction?

Pre-Cast and Cast-in-Place Construction Methods

As described above, the bridge would be constructed in sediments susceptible to liquefaction and associated lateral spreading. However, the proposed bridge would be designed and constructed in accordance with the recommendations of a project-specific geotechnical report and signed by a California Geotechnical Engineer and/or California Certified Engineering Geologist during final project design. The approach roadways and bridge would be designed in accordance with applicable City and State design standards. In addition, construction and operation of the proposed bridge would not increase the potential for earthquakes or seismically induced ground failure to occur, including the risk of loss, injury, or death. Therefore, the impact of the proposed project related to seismic-related ground failure for either construction method would be **less than significant**.

Landslides?

Pre-Cast and Cast-in-Place Construction Methods

As described in Section 3.6.1, the southern bridge abutment site is an area of steep slopes (25% or greater). Relatively steep slopes are also present at the northern bridge abutment. As part of the project design, embankment fill slopes would be installed from the north abutment location northward to the connecting roadway intersection, and the north and south abutment footprints would be excavated from the embankments (the south abutment is located in an existing slope). In the absence of proper bridge engineering and construction, the bridge could be susceptible to failure of these north- and south-facing slopes. In addition, relatively steep (1:1 gradient) temporary slopes would be constructed during bridge abutment construction on both the north and south sides of the river. In the absence of proper shoring and/or temporary slope construction, temporary slopes could collapse, resulting in injury or death to on-site personnel.

However, as required by the 2022 CBC, the Seismic Hazards Mapping Act of 1990, and San Diego Municipal Code, the proposed bridge would be constructed in accordance with the recommendations of a project-specific geotechnical report and in compliance with applicable City and Caltrans design standards, as well as American Association of State Highway and Transportation Officials guidelines. Based on the project design, the north and south bridge abutments would include ground improvements such as vibro-replacement stone columns, cement deep soil mixing, and/or compaction grouting to mitigate the potential for liquefaction-induced secondary effects, such as settlement and instability in sloping ground. Riprap would be placed at a 2:1 slope along the channel banks adjacent to the bridge abutments. The riprap would extend 10 feet below the existing channel bed at the 2:1 gradient. The riprap would protect the slope from river erosive scour, which in turn could result in slope failure. These slope stability measures would prevent long-term slope stability impacts at the bridge abutments.

Temporary shoring may be required along Camino Del Rio North for the south abutment excavation. Temporary excavations would be completed in accordance with Cal/OSHA, which has responsibility for implementing federal rules relevant to worker safety, including slope protection during construction excavations. As described in Section 3.6.2, Cal/OSHA's requirements are more restrictive and protective than federal OSHA standards. Title 8 of the California Code of Regulations, Chapter 4, Division of Industrial Safety, covers requirements for temporary excavations. Compliance with Cal/OSHA regulations would prevent caving of temporary steep slopes during bridge abutment construction. These safety measures would prevent short-term construction-related slope stability impacts at the bridge abutments. As a result, slope stability related impacts for either construction method would be **less than significant**.

Would the project result in substantial soil erosion or the loss of topsoil?

Pre-Cast and Cast-in-Place Construction Methods

The proposed bridge would consist of up to four spans, which would be supported on concrete seat-type abutments in the river embankments at each end, and two to three piers within the river channel, each consisting of two to three approximately 20-foot-tall, 6-foot-diameter circular concrete columns. Each abutment would be supported on eight 4-foot-diameter, cast-in-drilled-hole concrete piles and each of the four columns would be supported on a single 8-foot-diameter cast-in-drilled-hole concrete pile. Piles are currently estimated to be drilled to depths between 50 and 200 feet below existing grade. Each of the abutments would be protected with energy dissipating riprap that will be buried to allow for plant growth over the riprap.

The Fenton Parkway and River Park Road intersection, which is currently under construction, would be expanded to a three-legged configuration with the new bridge approach forming the south leg of the intersection. The Mission City Parkway and Camino Del Rio North intersection would also be expanded from a three-way signal-controlled intersection under existing conditions to a four-way signal-controlled intersection, with the Fenton Parkway extension on the new bridge forming the new north leg. Existing 96-inch and 54-inch reinforced concrete pipe storm drains would require relocation and/or extension during project construction to accommodate storm drain outfalls into the river without impacting the bridge's structural integrity. In addition, project construction laydown and staging areas would be located both north and south of the proposed bridge.

In the absence of proper soil management, each of these soil-disturbing activities could result in wind and water erosion and associated sedimentation of the San Diego River. However, because ground disturbance would be greater than 1.0 acre, project soil-disturbing activities would be completed in accordance with the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) (see Section 3.9, Hydrology and Water Quality, for additional information), which includes a standard construction stormwater pollution prevention plan and associated best management practices (BMPs), to be implemented for sediment and erosion control during construction. Applicable BMPs may include surface roughening, mulching, and installation of silt fences and biodegradable fiber rolls or wattles to reduce erosion and sedimentation of the San Diego River. Typical BMPs would ensure construction is primarily conducted during dry-weather conditions, water is used for moisture control of exposed soils to prevent wind erosion when temporarily disturbed, coverings are used for temporary stockpiles, temporary catch basins are installed, and sandbagging is implemented. If construction is completed during the rainy season (normally from November through April), BMPs would be implemented to protect slopes against erosion. Measures to help minimize slope erosion could include the installation of berms, plastic sheeting, or other devices to protect exposed soils from the effects of precipitation. Surface water would be prevented from flowing over or ponding at the top of excavations.

Prior to the commencement of construction activities, the project site would be surveyed and fenced, followed by clearing and grubbing of the construction disturbance area. Any necessary stormwater BMPs or temporary fencing or catchment dams to establish bridge pier work areas would be established during this initial site preparation phase. No vegetation clearing, removal, and/or disturbance would occur outside of the bridge impact boundaries shown in Figure 2-2, Project Site, in Chapter 2, Project Description. Once access to the river channel is no longer required for construction activities, riprap slope protection would be installed around each abutment for erosion and sediment control. Additionally, areas where native vegetation is removed during Phase 1 of the project would be reseeded or replanted with appropriate native plant species. These restored areas would be monitored consistent with City Stadium Wetland Mitigation Site and resource agency permit requirements to ensure success.

With implementation of the construction stormwater pollution prevention plan and post-construction monitoring until vegetation is established, short-term and long-term erosion related impacts would be **less than significant** for either construction method.

Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Pre-Cast and Cast-in-Place Construction Methods

As previously discussed, the bridge would be constructed partially on steep slopes and temporary steep slopes would be created during bridge abutment construction. Improper construction and shoring could result in failure of existing slopes, proposed slopes, and temporary slopes. The bridge would be constructed on sediments prone to liquefaction and lateral spreading. However, as required by the Seismic Hazards Mapping Act of 1990, 2022 CBC, and San Diego Municipal Code, the proposed bridge would be constructed in accordance with the recommendations of a project-specific geotechnical report and in compliance with applicable City and Caltrans design standards, as well as American Association of State Highway and Transportation Officials (AASHTO) guidelines (e.g., Caltrans' Bridge Design Manual; regular inspections by State or City engineers; AASHTO Load and Resistance Factor Design [LRDF] Bridge Specifications, 9th Edition). In addition, temporary excavations would be completed in accordance with Cal/OSHA, which has responsibility for implementing federal rules relevant to worker safety, including slope protection during construction excavations. Compliance with Cal/OSHA regulations would prevent caving of temporary steep slopes during bridge abutment construction. As a result, impacts related to unstable soils or geologic units would be **less than significant** for either construction method.

Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Pre-Cast and Cast-in-Place Construction Methods

Soil expansion generally occurs in clay-rich soils as a result of wetting of the soil. The soil subsequently contracts when dry, resulting in widespread cracking of the soil. This alternating sequence of soil expansion and contraction can result in damage to overlying foundations and related infrastructure. As discussed in Section 3.6.1, the project site is underlain by Riverwash surficial soils, which consist of gravelly coarse sand to a depth of 6 inches and stratified, very gravelly coarse sand to gravelly sand to a depth of 60 inches. Underlying the surficial soils are alluvial flood plain deposits (Figure 3.6-1). Each of these sediments are generally sand rich and therefore not prone to soil expansion. Although it is unlikely expansive soils are present, soil sampling and testing for soil expansion would be completed as part of the project-specific geotechnical investigation. In the event expansive soils are present, standard geotechnical remedial measures (e.g., riprap; ground improvements) would be implemented to prevent structural damage due to soil expansion and shrinking. As a result, the project would not create substantial direct or indirect risks to life or property with respect to expansive soils, and impacts would be **less than significant** for either construction method.

Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Pre-Cast and Cast-in-Place Construction Methods

Proposed bridge operations would not require wastewater disposal. Therefore, **no impacts** would occur for either construction method.

Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Pre-Cast and Cast-in-Place Construction Methods

No paleontological resources were identified within the project site as a result of the institutional records search, desktop geological review, and paleontological survey. The paleontological records search conducted by the San Diego Natural History Museum revealed five fossil localities located nearby within the same geological units that underlie the northern portion of the project site at depth. The old alluvial flood plain deposits, which are present in the northern area of the project site, have moderate paleontological sensitivity. The young alluvial flood plain deposits, which are present on the surface within the majority of the project site, have low paleontological sensitivity that increases with depth below the ground surface. Based on the records search results, survey results, and map and literature review, the project site has moderate to low potential to produce paleontological resources during planned construction activities. In the event that intact paleontological resources are discovered on the project site, ground-disturbing activities associated with construction of the proposed project, such as grading and large-diameter (2 feet or greater) drilling during site preparation and trenching for utilities, have the potential to destroy a unique paleontological resource or site. Without mitigation, the potential damage to paleontological resources during construction of either method would be a **potentially significant impact**.

3.6.5 Cumulative Impacts

As discussed above, no soils or geologic conditions were encountered that would preclude the development of the project as proposed. Short-term erosion and sedimentation impacts would be addressed through conformance with applicable elements of the City stormwater program and related NPDES standards. Specifically, this would entail conformance with applicable City regulatory codes, as well as the NPDES Construction General Permit.

Due to the localized nature of geology and soils, cumulative projects would address potential impacts to geology and soils on a project-by-project basis, as potential geologic hazards and soil composition varies by site. Each cumulative project would be required to assess individual and site-specific geologic conditions, which would inform construction and development of each site. All cumulative development would be subject to similar requirements to those imposed and implemented for the proposed project and would be required to adhere to applicable regulations, standards, and procedures. As such, the proposed project would result impacts that would **not be cumulatively considerable**.

3.6.6 Summary of Impacts Prior to Mitigation

Prior to mitigation, impacts to paleontological resources would be **potentially significant**.

3.6.7 Mitigation Measures

The following mitigation measure would reduce potential impacts associated with paleontological resources.

MM-GEO1: Paleontological Resources Impact Mitigation Program and Paleontological Monitoring. Prior to commencement of any grading activity on site, the applicant shall retain a qualified paleontologist per the 2010 Society of Vertebrate Paleontology (SVP) guidelines. The qualified paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the project that shall be consistent with the 2010 SVP guidelines. The PRIMP shall outline requirements for preconstruction meeting attendance and worker environmental awareness training; where paleontological monitoring is required within the project site based on construction plans and/or geotechnical reports; procedures for paleontological monitoring and discoveries treatment per SVP (2010) guidelines; and paleontological methods (including sediment sampling for microinvertebrate and microvertebrate fossils), reporting, and collections management. The PRIMP shall also include a statement that any fossil lab or curation costs (if necessary due to fossil recovery) are the responsibility of the project proponent. A qualified paleontological monitor shall be on site during initial rough grading and other significant ground-disturbing activities (including augering) in areas underlain by the old alluvial flood plain deposits and below a depth of 5 feet below the ground surface in areas underlain by Holocene flood plain deposits to determine if they are old enough to preserve scientifically significant paleontological resources. In the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontological monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot-radius buffer. Once documentation and collection of the find is completed, the monitor shall allow grading to recommence in the area of the find. Any fossils encountered and recovered shall be prepared to the point of identification, catalogued, and donated to a public, nonprofit institution with a research interest in the materials. Accompanying notes, maps, and photographs shall also be filed at the repository.

3.6.8 Level of Significance After Mitigation

Impacts related to geology and soils, with the exception of paleontological resources, would be less than significant or would have no impact, and no mitigation is required. Impacts related to the potential to encounter paleontological resources would be reduced to **less than significant** with implementation of MM-GEO-1. MM-GEO-1 would reduce potential impacts by requiring worker awareness training, paleontological monitoring, and methods for recovery and donation of the find.

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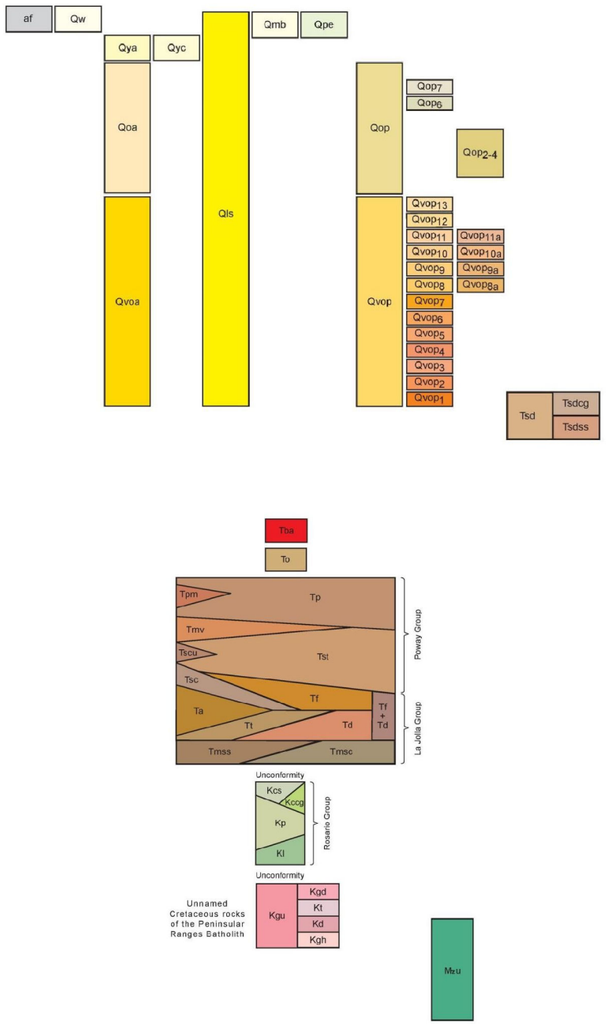
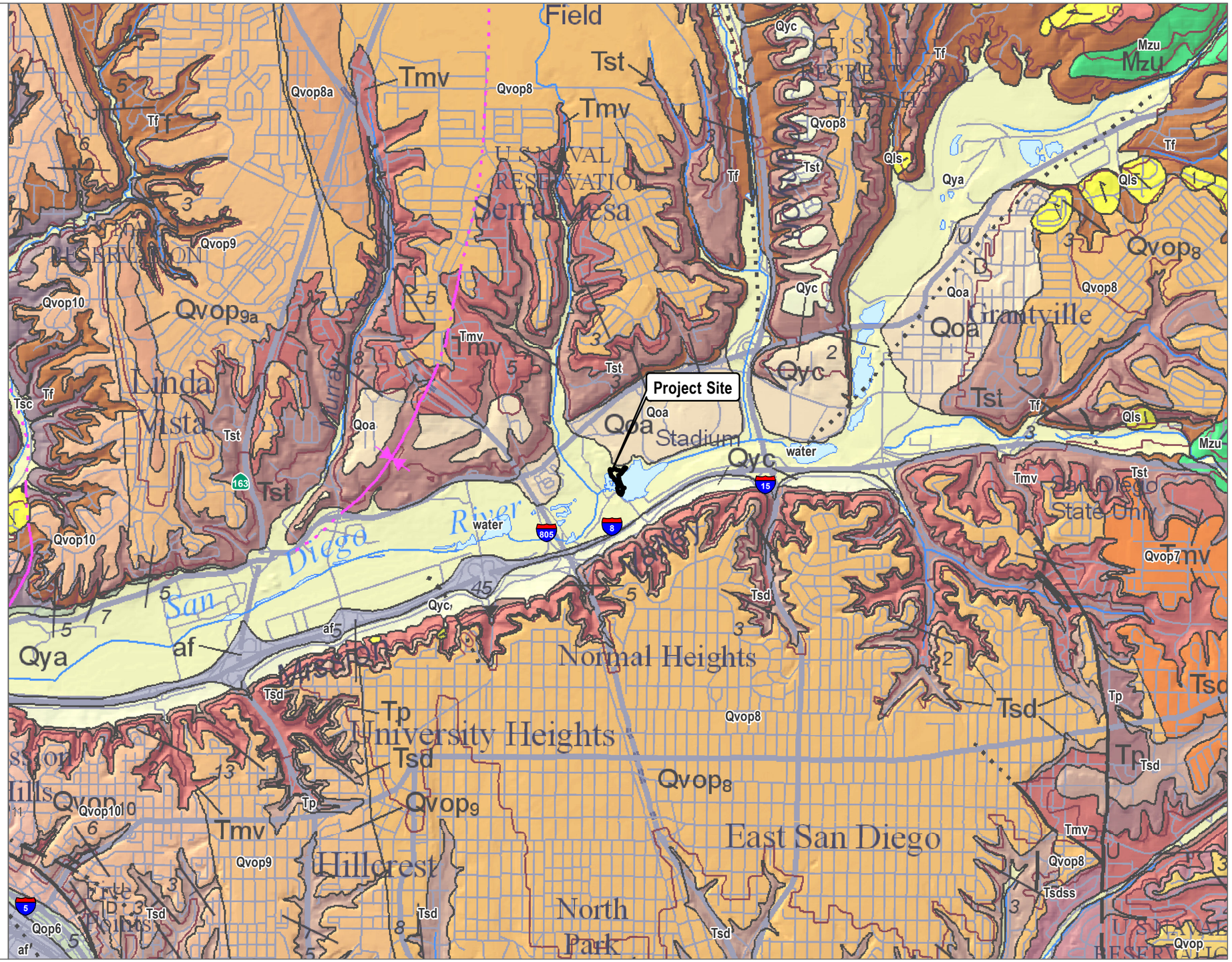
Project Work Area

Stratigraphic Units

- water
- af - Artificial
- Qls - Landslide deposits undivided
- Qya - Young alluvial flood plain deposits
- Qyc - Young colluvial deposits
- Qoa - Old alluvial flood plain deposits undivided
- Qop - Old paralic deposits
- Qvop - Very old paralic deposits
- Tsd - San Diego Formation
- Tsdss - San Diego Formation, fossiliferous marine sandstone
- Tp - Pomerado Conglomerate
- Tmv - Mission Valley Formation
- Tst - Stadium Conglomerate
- Tsc - Scripps Formation
- Tf - Friars Formation
- Mzu - Metasedimentary and metavolcanic rocks undivided




Project Site
Field
Tst
Tmv
Qvop8a
Qvop8
Tf
Qyc
Mzu
Qls
Qya
Qvop9
Qvop10
Qvop9a
Linda Vista
Serra Mesa
Grantville
Qoa
Stadium
water
Tsc
Qvop10
Qvop8
Qvop9
Qvop8
Tsd
Tp
University Heights
Normal Heights
East San Diego
Hillcrest
North Park
San Diego State Univ
Qvop7
Tmv
Tsdss
Qop6
af
Qyc
Qya
Qvop
Tsd
Tp
Qvop8
Qvop9
Qvop10
Tmv
Tsdss
Qvop
Tsd
Tp
Qvop8
Qvop9
Qvop10
Tmv
Tsdss
Qop6
af

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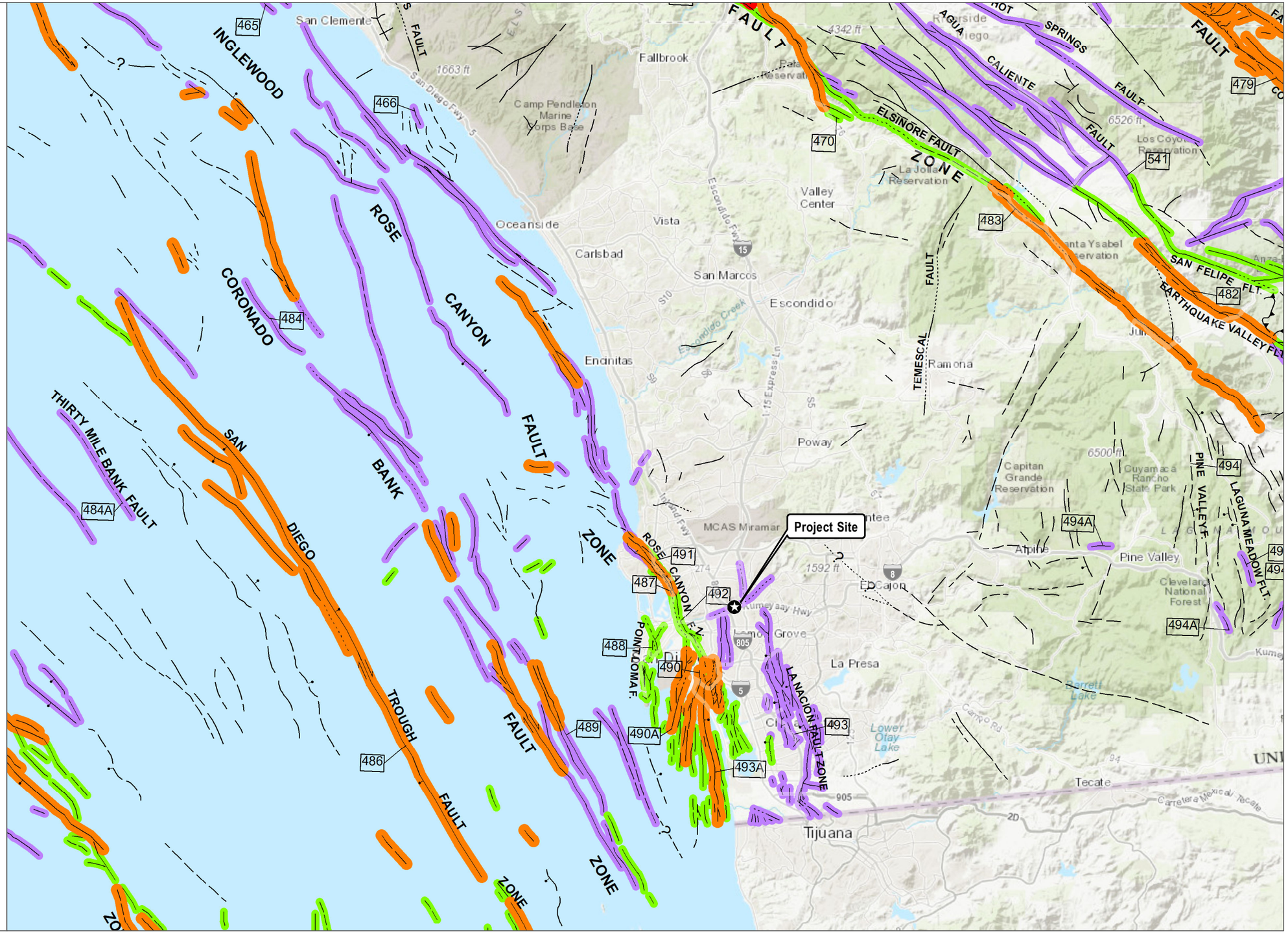
Quaternary Faults
- fault, approx. located
- fault, certain
- fault, concealed
- dextral fault, certain
- fault, certain (ball and bar)
- fault, approx. located (ball and bar)
- dextral fault, certain (ball and bar)
- reverse fault, certain

Pre-Quaternary Faults
- fault, certain
- fault, approx. located
- fault, concealed
- thrust fault, certain
- fault, certain (ball and bar)
- fault, approx. located (ball and bar)

Fault Classification

Recency of Movement
- Historic
- Holocene
- Late Quaternary
- Quaternary



SOURCE: California Geological Survey 2023

DUDEK

0 20,000 40,000 Feet

FIGURE 3.6-2

Fault Map

Fenton Parkway Bridge Project EIR

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3.7 Greenhouse Gas Emissions

This section describes the existing greenhouse gas (GHG) conditions of the project site and vicinity, identifies associated regulatory requirements, and evaluates potential impacts related to implementation of the proposed Fenton Parkway Bridge Project (project). An Air Quality and Greenhouse Gas Emissions Technical Report was prepared by Dudek in February 2024 and is included herein as Appendix B.

A Notice of Preparation (NOP) was circulated from May 22, 2023, to June 20, 2023. A total of 16 letters were received during this comment period. Comments received on the NOP related to GHG emissions included requests for analysis of long-term GHG impacts. Please see Appendix A, NOP and Scoping Comments, for a complete compilation of comments received on the NOP.

3.7.1 Existing Conditions

Climate Change Overview

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period (i.e., decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human, can cause changes in Earth's energy balance, including variations in the sun's energy reaching Earth, changes in the reflectivity of Earth's atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere (EPA 2023a).

The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect traps heat in the troposphere through a threefold process as follows: short-wave radiation emitted by the Sun is absorbed by the Earth, the Earth emits a portion of this energy in the form of long-wave radiation, and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature and creates a pleasant, livable environment on the Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise.

The scientific record of the Earth's climate shows that the climate system varies naturally over a wide range of time scales and that, in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. Recent climate changes, in particular the warming observed over the past century, however, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of that warming since the mid-twentieth century and is the most significant driver of observed climate change (IPCC 2013; EPA 2023b). Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate system (IPCC 2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system, which is discussed further below.

Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code, Section 38505(g), for purposes of administering many of the State's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride. (See also CEQA Guidelines, Section 15364.5.) Some GHGs, such as CO_2, CH_4, and N_2O, occur naturally and are emitted into the atmosphere through natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO_2, include fluorinated gases, such as HFCs, PFCs, and SF_6, which are associated with certain industrial products and processes. The following paragraphs provide a summary of the most common GHGs and their sources.[1]

Carbon Dioxide. CO_2 is a naturally occurring gas and a by-product of human activities and is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of CO_2 include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic out-gassing; and decomposition of dead organic matter. Human activities that generate CO_2 are from the combustion of fuels such as coal, oil, natural gas, and wood and changes in land use.

Methane. CH_4 is produced through both natural and human activities. CH_4 is a flammable gas and is the main component of natural gas. Methane is produced through anaerobic (without oxygen) decomposition of waste in landfills, flooded rice fields, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

Nitrous Oxide. N_2O is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create N_2O. Sources of N_2O include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers, manure management, industrial processes (such as in nitric acid production, nylon production, and fossil-fuel-fired power plants), vehicle emissions, and using N_2O as a propellant (e.g., rockets, racecars, and aerosol sprays).

Fluorinated Gases. Fluorinated gases (also referred to as F-gases) are synthetic powerful GHGs emitted from many industrial processes. Fluorinated gases are commonly used as substitutes for stratospheric ozone (O_3) depleting substances (e.g., chlorofluorocarbons, hydrochlorofluorocarbons, and halons). The most prevalent fluorinated gases include the following:

- **Hydrofluorocarbons:** HFCs are compounds containing only hydrogen, fluorine, and carbon atoms. HFCs are synthetic chemicals used as alternatives to O_3 depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are used in manufacturing.
- **Perfluorocarbons:** PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals were introduced as alternatives, with HFCs, to the O_3 depleting substances. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Since PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere, these chemicals have long lifetimes, ranging between 10,000 and 50,000 years.

1. The descriptions of GHGs are summarized from the Intergovernmental Panel on Climate Change (IPCC) Second Assessment Report (1995), IPCC Fourth Assessment Report (2007), CARB's "Glossary of Terms Used in GHG Inventories" (2018), and EPA's "Glossary of Climate Change Terms" (2016).

- **Sulfur Hexafluoride:** SF_6 is a colorless gas soluble in alcohol and ether and slightly soluble in water. SF_6 is used for insulation in electric power transmission and distribution equipment, semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.
- **Nitrogen Trifluoride:** Nitrogen trifluoride is used in the manufacture of a variety of electronics, including semiconductors and flat panel displays.

Chlorofluorocarbons. Chlorofluorocarbons are synthetic chemicals that have been used as cleaning solvents, refrigerants, and aerosol propellants. Chlorofluorocarbons are chemically unreactive in the lower atmosphere (troposphere) and the production of chlorofluorocarbons was prohibited in 1987 due to the chemical destruction of stratospheric O_3.

Hydrochlorofluorocarbons. Hydrochlorofluorocarbons are a large group of compounds, whose structure is very close to that of chlorofluorocarbons—containing hydrogen, fluorine, chlorine, and carbon atoms—but including one or more hydrogen atoms. Like HFCs, hydrochlorofluorocarbons are used in refrigerants and propellants. Hydrochlorofluorocarbons were also used in place of chlorofluorocarbons for some applications; however, their use in general is being phased out.

Black Carbon. Black carbon is a component of fine particulate matter, which has been identified as a leading environmental risk factor for premature death. It is produced from the incomplete combustion of fossil fuels and biomass burning, particularly from older diesel engines and forest fires. Black carbon warms the atmosphere by absorbing solar radiation, influences cloud formation, and darkens the surface of snow and ice, which accelerates heat absorption and melting. Black carbon is a short-lived species that varies spatially, which makes it difficult to quantify the global warming potential (GWP). Diesel particulate matter emissions are a major source of black carbon and are toxic air contaminants that have been regulated and controlled in California for several decades to protect public health. In relation to declining diesel particulate matter from California Air Resources Board (CARB) regulations pertaining to diesel engines, diesel fuels, and burning activities, CARB estimates that annual black carbon emissions in California have reduced by 70% between 1990 and 2010 (CARB 2014). California's clean air rules have helped reduce black carbon emissions by 90% since the 1960s and ongoing efforts are expected to cut the remaining amount in half by 2030 (CARB 2017c).

Water Vapor. The primary source of water vapor is evaporation from the ocean, with additional vapor generated by sublimation (change from solid to gas) from ice and snow, evaporation from other water bodies, and transpiration from plant leaves. Water vapor is the most important, abundant, and variable GHG in the atmosphere and maintains a climate necessary for life.

Ozone. Tropospheric O_3, which is created by photochemical reactions involving gases from both natural sources and human activities, acts as a GHG. Stratospheric O_3, which is created by the interaction between solar ultraviolet radiation and molecular oxygen (O_2), plays a decisive role in the stratospheric radiative balance. Depletion of stratospheric O_3, due to chemical reactions that may be enhanced by climate change, results in an increased ground-level flux of ultraviolet-B radiation.

Aerosols. Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2023c). The Intergovernmental Panel on Climate Change developed the GWP concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is CO_2; therefore, GWP-weighted emissions are measured in metric tons (MT) of CO_2 equivalent (CO_2e).

The current version of the California Emissions Estimator Model (CalEEMod) (version 2022.1.1.14) assumes that the GWP for CH_4 is 25 (so emissions of 1 MT of CH_4 are equivalent to emissions of 25 MT of CO_2), and the GWP for N_2O is 298, based on the Intergovernmental Panel on Climate Change Fourth Assessment Report (IPCC 2007). The GWP values identified in CalEEMod were applied to the project.

Sources of Greenhouse Gas Emissions

Per the U.S. Environmental Protection Agency's (EPA's) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2021, total U.S. GHG emissions were approximately 6,340.2 million MT (MMT) CO_2e in 2021 (EPA 2023d). Total U.S. emissions have decreased by 2.3% from 1990 to 2021, down from a high of 15.8% above 1990 levels in 2007. Emissions increased from 2020 to 2021 by 5.2% (314.3 MMT CO_2e). Net emissions (i.e., including sinks) were 5,586.0 MMT CO_2e in 2021. Overall, net emissions increased 6.4% from 2020 to 2021 and decreased 16.6% from 2005 levels. Between 2020 and 2021, the increase in total GHG emissions was driven largely by an increase in CO_2 emissions from fossil fuel combustion due to economic activity rebounding after the height of the COVID-19 pandemic. The CO_2 emissions from fossil fuel combustion increased by 6.8% from 2020 to 2021, including a 11.4% increase in transportation sector emissions and a 7.0% increase in electric power sector emissions. The increase in electric power sector emissions was due in part to an increase in electricity demand of 2.4% since 2020. Overall, there has been a decrease in electric power sector emissions from 1990 through 2021, which reflects the combined impacts of long-term trends in many factors, including population, economic growth, energy markets, technological changes including energy efficiency, and the carbon intensity of energy fuel choices (EPA 2023d).

According to California's 2000–2020 GHG emissions inventory (2022 edition), California emitted approximately 369 MMT CO_2e in 2020, including emissions resulting from out-of-state electrical generation (CARB 2022a). The sources of GHG emissions in California include transportation, industry, electric power production from both in-state and out-of-state sources, residential and commercial activities, agriculture, high-GWP substances, and recycling and waste. Table 3.7-1 presents California GHG emission source categories and their relative contributions to the emissions inventory in 2020.

Table 3.7-1. Greenhouse Gas Emissions Sources in California

Source Category	Annual GHG Emissions (MMT CO_2e)[a]	Percent of Total[a]
Transportation	135.9	37%
Industrial	73.5	20%
Electric power	59.4	16%

Table 3.7-1. Greenhouse Gas Emissions Sources in California

Source Category	Annual GHG Emissions (MMT CO_2e)[a]	Percent of Total[a]
Commercial and Residential	38.8	10%
Agriculture	31.8	9%
High GWP substances	21.4	6%
Recycling and waste	8.9	2%
Total	**369.2**	**100%**

Source: CARB 2022a.
Notes: GHG = greenhouse gas; MMT CO_2e = million metric tons of carbon dioxide equivalent; GWP = global warming potential. Emissions reflect the 2020 California GHG inventory by Scoping Plan Category (CARB 2022a).
[a] Percentage of total and annual GHG emissions have been rounded, and total may not sum due to rounding.

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The 2014 Intergovernmental Panel on Climate Change Synthesis Report (IPCC 2014) indicated that warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice, rising sea levels, and ocean acidification (IPCC 2014).

In California, climate change impacts have the potential to affect sea-level rise, agriculture, snowpack and water supply, forestry, wildfire risk, public health, frequency of severe weather events, and electricity demand and supply. The primary effect of global climate change has been a rise in average global tropospheric temperature. Global surface temperature in the first two decades of the twenty-first century (2001–2020) was 0.99°C [0.84°C to 1.10°C] higher than 1850–1900 (IPCC 2023). Global surface temperature has increased faster since 1970 than in any other 50-year period over at least the last 2,000 years (IPCC 2023). Scientific modeling predicts that continued emissions of GHGs at or above current rates would induce more extreme climate changes during the twenty-first century than were observed during the twentieth century. Human activities, principally through emissions of GHGs, have unequivocally caused global warming, with global surface temperature reaching 1.1°C above 1850–1900 temperatures in 2011–2020 (IPCC 2023).

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. The Office of Environmental Health Hazard Assessment identified various indicators of climate change in California, which are scientifically based measurements that track trends in various aspects of climate change. Many indicators reveal discernible evidence that climate change is occurring in California and is having significant, measurable impacts in the state. Changes in the state's climate have been observed, including an increase in annual average air temperature, more frequent extreme heat events, more extreme drought, a decline in winter chill, an increase in cooling degree days and a decrease in heating degree days, and an increase in variability of statewide precipitation (OEHHA 2022).

Warming temperatures and changing precipitation patterns have altered California's physical systems—the ocean, lakes, rivers and snowpack—upon which the state depends. Winter snowpack and spring snowmelt runoff from the Sierra Nevada and southern Cascade Mountains provide approximately one-third of the state's annual water supply. Impacts of climate on physical systems have been observed such as high variability of snow-water content (i.e., amount of water stored in snowpack), decrease in spring snowmelt runoff, glacier change (loss in area), rise

in sea levels, increase in average lake water temperature and coastal ocean temperature, and a decrease in dissolved oxygen in coastal waters (OEHHA 2022).

Impacts of climate change on biological systems, including humans, wildlife, and vegetation, have also been observed including climate change impacts on terrestrial, marine, and freshwater ecosystems. As with global observations, species responses include those consistent with warming: elevational or latitudinal shifts in range, changes in the timing of key plant and animal life cycle events, and changes in the abundance of species and in community composition. Humans are better able to adapt to a changing climate than plants and animals in natural ecosystems. Nevertheless, climate change poses a threat to public health, as warming temperatures and changes in precipitation can affect vector-borne pathogen transmission and disease patterns in California, as well as the variability of heat-related deaths and illnesses. In addition, since 1950, the area burned by wildfires each year has been increasing.

The California Natural Resources Agency (CNRA) has released four California Climate Change Assessments (in 2006, 2009, 2012, and 2018), which have addressed the following: acceleration of warming across the state, more intense and frequent heat waves, greater riverine flows, accelerating sea level rise, more intense and frequent drought, more severe and frequent wildfires, more severe storms and extreme weather events, shrinking snowpack and less overall precipitation, and ocean acidification, hypoxia, and warming. To address local and regional governments' need for information to support action in their communities, the Fourth Assessment (CNRA 2018) includes reports for nine regions of the state, including the San Diego region, where the project is located. Key projected climate changes for the San Diego region include the following (CNRA 2018):

- Continued future warming over the San Diego region. Across the region, average maximum temperatures are projected to increase by 5°F to 10°F by the end of the twenty-first century.
- Extreme temperatures are also expected to increase. Heat wave frequency is expected to increase with more intensity and duration.
- Precipitation is expected to remain highly variable, but with shifts in character. There will be wetter winters, drier springs, and more frequent and severe droughts.
- Sea level along San Diego is expected to rise by approximately 1 foot by the mid-twenty-first century and by 3 feet or more by 2100.

Wildfire risk will continue to increase in the future as the climate warms, with increased risk for large catastrophic wildfires driven by increased Santa Ana wind events.

3.7.2 Relevant Plans, Policies, and Ordinances

Federal

Massachusetts v. U.S. Environmental Protection Agency

In *Massachusetts v. EPA* (April 2007), the U.S. Supreme Court ruled that CO_2 was a pollutant and directed the EPA administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the EPA administrator is required to follow the language of Section 202(a) of the Clean Air Act. On December 7, 2009, the administrator signed a final rule with two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- The elevated concentrations of GHGs—CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations. This is referred to as the "endangerment finding."
- The combined emissions of GHGs—CO_2, CH_4, N_2O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is referred to as the "cause or contribute finding."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

Energy Independence and Security Act

The Energy Independence and Security Act of 2007 (Public Law 110-140), among other key measures, would do the following, which would aid in the reduction of national GHG emissions (EPA 2007):

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020, and direct National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy-efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

Federal Vehicle Standards

In 2007, in response to the *Massachusetts v. EPA* U.S. Supreme Court ruling discussed above, the Bush administration issued Executive Order (EO) 13432 directing EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012 through 2016 (75 FR 25324–25728).

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017 through 2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017 through 2021 (77 FR 62624–63200). On January 12, 2017, the EPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014 through 2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6% to 23% over the 2010 baselines (76 FR 57106–57513).

In August 2016, EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion MT and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (EPA and NHTSA 2016).

On April 2, 2018, EPA, under administrator Scott Pruitt, reconsidered the final determination for light-duty vehicles and withdrew its previous 2017 determination, stating that the current standards may be too stringent and therefore should be revised as appropriate (83 FR 16077–16087).

In August 2018, EPA and NHTSA proposed to amend certain fuel economy and GHG standards for passenger cars and light trucks and establish new standards for model years 2021 through 2026. Compared to maintaining the post-2020 standards then in place, the 2018 proposal would increase U.S. fuel consumption by about 0.5 million barrels per day (2% to 3% of total daily consumption, according to the Energy Information Administration) and would impact the global climate by 3/1000th of 1°C by 2100 (EPA and NHTSA 2018). California and other states stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives.

In 2019, EPA and NHTSA published the Safer Affordable Fuel-Efficient Vehicles Rule Part One: One National Program (SAFE-1) (84 FR 51310), which revoked California's authority to set its own GHG emissions standards and set zero-emission vehicle (ZEV) mandates in California. However, in March 2022, EPA reinstated California's authority under the Clean Air Act to implement its own GHG emission standards and ZEV sales mandate. In March 2020, Part Two was issued, which set CO_2 emissions standards and Corporate Average Fuel Economy standards for passenger vehicles and light-duty trucks for model years 2021 through 2026.

In response to EO 13990, on December 21, 2021, NHTSA finalized the Corporate Average Fuel Economy Preemption rulemaking to withdraw its portions of the Part One Rule. The final rule concluded that the Part One Rule overstepped the agency's legal authority and established overly broad prohibitions that did not account for a variety of important state and local interests.

In March 2022, NHTSA established new fuel economy standards that would require an industry-wide fleet average of approximately 49 miles per gallon for passenger cars and light trucks in model year 2026, by increasing fuel efficiency by 8% annually for model years 2024 and 2025 and 10% annually for model year 2026.

On April 12, 2023, EPA announced new, proposed standards to further reduce harmful air pollutant emissions from light-duty and medium-duty vehicles starting with model year 2027. The proposal builds upon EPA's final standards for federal greenhouse gas emissions standards for passenger cars and light trucks for model years 2023 through 2026 and leverages advances in clean car technology. The proposed standards would phase in over model years 2027 through 2032.

The Inflation Reduction Act of 2022

The Inflation Reduction Act was signed into law by President Biden in August 2022. The bill includes specific investment in energy and climate reform and is projected to reduce GHG emissions within the United States by 40% as compared to 2005 levels by 2030. The bill allocates funds to boost renewable energy infrastructure (e.g., solar panels and wind turbines), includes tax credits for the purchase of electric vehicles, and includes measures that will make homes more energy efficient.

The Inflation Reduction Act authorized EPA to implement the Greenhouse Gas Reduction Fund program, a historic, $27 billion investment to mobilize financing and private capital to combat the climate crisis and ensure American economic competitiveness. The Greenhouse Gas Reduction Fund will be designed to achieve the following program objectives: reduce GHG emissions and other air pollutants; deliver the benefits of GHG- and air-pollution-reducing projects to American communities, particularly low-income and disadvantaged communities; and mobilize financing and private capital to stimulate additional deployment of GHG and air pollution reducing projects (EPA 2023e).

State

The statewide GHG emissions regulatory framework is summarized in this subsection by category: state climate change targets, building energy, renewable energy and energy procurement, mobile sources, water, solid waste, and other state actions. The following text describes EOs, Assembly Bills (ABs), Senate Bills (SBs), and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues.

State Climate Change Targets

The state has taken a number of actions to address climate change. These actions are summarized below and include EOs, legislation, and CARB plans and requirements.

Executive Order S-3-05

EO S-3-05 (June 2005) identified GHG emissions-reduction targets and laid out responsibilities among the state agencies for implementing the EO and for reporting on progress toward the targets. This EO identified the following targets:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80% below 1990 levels.

EO S-3-05 also directed the California Environmental Protection Agency to report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry.

Assembly Bill 32

In furtherance of the goals identified in EO S-3-05, the Legislature enacted AB 32, the California Global Warming Solutions Act of 2006 (California Health and Safety Code Sections 38500–38599). AB 32 provided initial direction on creating a comprehensive multiyear program to limit California's GHG emissions at 1990 levels by 2020 and initiating the transformations required to achieve the state's long-range climate objectives.

Executive Order B-30-15

EO B-30-15 (April 2015) identified an interim GHG-reduction target in support of targets previously identified under EO S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050, as set forth in EO S-3-05. To facilitate achieving this goal, EO B-30-15 called for CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of MMT CO2e. The EO also called for state agencies to continue to develop and implement GHG emission-reduction programs in support of the reduction targets.

Senate Bill 32 and Assembly Bill 197

SB 32 and AB 197 (enacted in 2016) are companion bills. SB 32 codified the 2030 emissions-reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, to provide ongoing oversight over implementation of the state's climate policies. AB 197 also added two members of the Legislature to CARB Board as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and toxic air contaminants from reporting facilities; and requires CARB to identify specific information for GHG emissions-reduction measures when updating the scoping plan.

Executive Order B-55-18

EO B-55-18 (September 2018) identified a policy for the state to achieve carbon neutrality as soon as possible (no later than 2045) and achieve and maintain net negative emissions thereafter. The goal is an addition to the existing statewide targets of reducing the state's GHG emissions. CARB will work with relevant state agencies to ensure that future scoping plans identify and recommend measures to achieve the carbon neutrality goal.

Assembly Bill 1279

The Legislature enacted AB 1279, the California Climate Crisis Act, in September 2022. The bill declares the policy of the state to achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter. Additionally, the bill requires that by 2045, statewide anthropogenic GHG emissions be reduced to at least 85% below 1990 levels.

Although AB 1279 establishes an overall policy to achieve net zero GHG emissions as soon as possible, but no later than 2045, recognizing the need to implement carbon dioxide removal and carbon capture, utilization, and storage technologies, the Legislature established a specific target of 85% below 1990 levels by 2045 for anthropogenic GHG emissions. Therefore, the net zero target does not directly apply to development projects, but the 2045 target of 85% below 1990 levels represents the reductions required to contribute to accomplishing the state's overall net zero policy.

California Air Resources Board's Climate Change Scoping Plan

One specific requirement of AB 32 is for CARB to prepare a scoping plan for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020 (California Health and Safety Code Section 38561[a]) and to update the plan at least once every 5 years. In 2008, CARB approved the first scoping plan: The Climate Change Proposed Scoping Plan: A Framework for Change (Scoping Plan) (CARB 2008). The Scoping Plan included a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission-reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the state's long-range climate objectives.

In 2014, CARB approved the first update to the Scoping Plan. The First Update to the Climate Change Scoping Plan: Building on the Framework (First Update) defined the state's GHG emission reduction priorities for the next 5 years and laid the groundwork to start the transition to the post-2020 goals set forth in EO S-3-05 and EO B-16-2012 (CARB 2014). The First Update concluded that California was on track to meet the 2020 target but recommended that a 2030 mid-term GHG reduction target be established to ensure a continuum of action to reduce emissions. The First Update recommended a mix of technologies in key economic sectors to reduce emissions through 2050, including energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

In December 2017, CARB released the 2017 Climate Change Scoping Plan Update (Second Update) for public review and comment (CARB 2017a). The Second Update builds on the successful framework established in the initial Scoping Plan and First Update, while identifying new technologically feasible and cost-effective strategies that will serve as the framework to achieve the 2030 GHG target and define the state's climate change priorities to 2030 and beyond. The strategies' known commitments include implementing renewable energy and energy efficiency (including the mandates of SB 350), increased stringency of the Low Carbon Fuel Standard, measures identified in the Mobile Source and Freight Strategies, measures identified in the proposed Short-Lived Climate Pollutant (SLCP) Plan, and increased stringency of SB 375 targets. To fill the gap in additional reductions needed to achieve the 2030 target, the Second Update recommends continuing the Cap-and-Trade Program and a measure to reduce GHGs from refineries by 20%. The Second Update was approved by CARB's Governing Board on December 14, 2017.

CARB adopted the 2022 Scoping Plan Update in December 2022. The 2022 Scoping Plan outlines the state's plan to reach carbon neutrality by 2045 or earlier, while also assessing the progress the state is making toward achieving GHG reduction goals by 2030. Per the Legislative Analyst's Office, the 2022 Scoping Plan identifies a more aggressive 2030 GHG goal. As it relates to the 2030 goal, perhaps the most significant change in the 2022 plan (as compared to previous Scoping Plans) is that it identifies a new GHG target of 48% below the 1990 level, compared to the current statutory goal of 40% below. Current law requires the state to reduce GHG emissions by at least 40% below the 1990 level by 2030 but does not specify an alternative goal. According to CARB, a focus on the lower target is needed to put the state on a path to meeting the newly established 2045 goal, consistent with the overall

path to 2045 carbon neutrality. The carbon neutrality goal requires CARB to expand proposed actions from only the reduction of anthropogenic sources of GHG emissions to also include those that capture and store carbon (e.g., through natural and working lands or mechanical technologies). The carbon reduction programs build on and accelerate those currently in place, including moving to zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen (CARB 2022b).

The 2022 Scoping Plan Update also emphasizes that there is no realistic path to carbon neutrality without carbon removal and sequestration, and to achieve the state's carbon neutrality goal, carbon reduction programs must be supplemented by strategies to remove and sequester carbon. Strategies for carbon removal and sequestration include carbon capture and storage from anthropogenic point sources, where CO_2 is captured as it leaves a facility's smokestack and is injected into geologic formations or used in industrial materials (e.g., concrete), and CO_2 removal from ambient air, through mechanical (e.g., direct air capture with sequestration) or nature-based (e.g., management of natural and working lands) applications.

The 2022 Scoping Plan details "Local Actions" in Appendix D. The Local Actions include recommendations intended to build momentum for local government actions that align with the state's climate goals, with a focus on local GHG reduction strategies (commonly referred to as climate action planning) and approval of new land use development projects, including through environmental review under CEQA. The recommendations provided in Appendix D are non-binding and should not be interpreted as a directive to local governments, but rather as evidence-based analytical tools to assist local governments with their role as essential partners in achieving California's climate goals. Appendix D recognizes consistency with a CEQA-qualified GHG reduction plan, such as a climate action plan (CAP), as a preferred option for evaluating potential GHG emission impacts under CEQA. Absent a qualified GHG reduction plan, Appendix D provides recommendations for key attributes that residential and mixed-use projects should achieve that would align with the state's climate goals, including electric vehicle (EV) charging infrastructure, infill location, no loss or conversion of natural and working lands, transit-supportive densities or proximity to transit stops, reducing parking requirements, provision of affordable housing (20% of units), and all-electric appliances with no natural gas connection (CARB 2022b). Projects that achieve all key attributes are considered clearly consistent with the state's climate and housing goals and would have a less-than-significant GHG impact under CEQA. However, projects that do not achieve all attributes are not considered to result in a potentially significant GHG emission impact (CARB 2022b).

California Air Resources Board's Regulations for the Mandatory Reporting of GHG Emissions

CARB's Regulation for the Mandatory Reporting of GHG Emissions (17 CCR 95100–95157) incorporated by reference certain requirements that EPA promulgated in its Final Rule on Mandatory Reporting of GHGs (40 CFR, Section 98). Specifically, Section 95100(c) of the Mandatory Reporting Regulation incorporated those requirements that EPA promulgated in the Federal Register on October 30, 2009; July 12, 2010; September 22, 2010; October 28, 2010; November 30, 2010; December 17, 2010; and April 25, 2011. In general, entities subject to the Mandatory Reporting Regulation that emit over 10,000 MT CO_2e per year are required to report annual GHG emissions through the California Electronic GHG Reporting Tool. Certain sectors, such as refineries and cement plants, are required to report regardless of emission levels. Entities that emit more than the 25,000 MT CO_2e per year threshold are required to have their GHG emissions report verified by a CARB-accredited third party.

Executive Order B-18-12

EO B-18-12 (April 2012) directed state agencies, departments, and other entities under the governor's executive authority to take action to reduce entity-wide GHG emissions by at least 10% by 2015 and 20% by 2020, as measured against a 2010 baseline. EO B-18-12 also identified goals for existing state buildings for reducing grid-based energy purchases and water use.

Senate Bill 605 and Senate Bill 1383

SB 605 (2014) requires CARB to complete a comprehensive strategy to reduce emissions of SLCPs in the state (California Health and Safety Code Section 39730) and SB 1383 (2016) requires CARB to approve and implement that strategy by January 1, 2018 (California Public Resources Code [PRC] Sections 42652–43654). SB 1383 also establishes specific targets for the reduction of SLCPs (40% below 2013 levels by 2030 for CH_4 and HFCs and 50% below 2013 levels by 2030 for anthropogenic black carbon) and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, and as mentioned above, CARB adopted its SLCP Reduction Strategy in March 2017 (CARB 2017b). The SLCP Reduction Strategy establishes a framework for the statewide reduction of emissions of black carbon, CH_4, and fluorinated gases (CARB 2017b).

Assembly Bill 1757

AB 1757 (September 2022) requires CNRA to determine a range of targets for natural carbon sequestration and for nature-based climate solutions that reduce GHG emissions for future years 2030, 2038, and 2045. These targets are to be determined by no later than January 1, 2024, and are established to support the state's goals to achieve carbon neutrality and foster climate adaptation and resilience.

Building Energy

California Code of Regulations Title 24, Part 6

The California Building Standards Code was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure that new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed every 3 years by the Building Standards Commission and the California Energy Commission (CEC) and revised if necessary (PRC Section 25402[b][1]). The regulations receive input from members of industry, as well as the public, to "reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (PRC Section 25402). These regulations are carefully scrutinized and analyzed for technological and economic feasibility (PRC Section 25402[d]) and cost effectiveness (PRC Section 25402[b][2–3]). As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The current Title 24, Part 6 standards, referred to as the 2022 Title 24 Building Energy Efficiency Standards, became effective on January 1, 2023. The 2022 Energy Code focuses on four key areas in newly constructed homes and businesses quality (CEC 2021):

- Encouraging electric heat pump technology for space and water heating, which consumes less energy and produces fewer emissions than gas-powered units.
- Establishing electric-ready requirements for single-family homes to position owners to use cleaner electric heating, cooking, and EV charging options whenever they choose to adopt those technologies.
- Expanding solar photovoltaic system and battery storage standards to make clean energy available on site and complement the state's progress toward a 100% clean electricity grid.
- Strengthening ventilation standards to improve indoor air quality.

California Code of Regulations, Title 24, Part 11

In addition to CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24), commonly referred to as CALGreen, establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up new construction of commercial, low-rise residential and state-owned buildings and schools and hospitals. The 2022 CALGreen standards are the current applicable standards. For nonresidential projects, some of the key mandatory CALGreen 2022 standards involve requirements related to bicycle parking, designated parking for clean air vehicles, EV charging stations for passenger vehicles, medium-heavy duty and heavy duty trucks, shade trees, water conserving plumbing fixtures and fittings, outdoor potable water use in landscaped areas, recycled water supply systems, construction waste management, excavated soil and land clearing debris, and commissioning (24 CCR, Part 11).

California Code of Regulations, Title 20

Title 20 of the California Code of Regulations requires manufacturers of appliances to meet state and federal standards for energy and water efficiency (20 CCR 1401–1410). CEC certifies an appliance based on a manufacturer's demonstration that the appliance meets the standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwashers; clothes washers and dryers; cooking products; electric motors; low voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing each type of appliance covered under the regulations and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

Senate Bill 1

SB 1 (2006) established a $3 billion rebate program to support the goal of the state to install rooftop solar energy systems with a generation capacity of 3,000 megawatts through 2016. SB 1 added sections to the PRC, including Chapter 8.8 (California Solar Initiative), that require building projects applying for ratepayer-funded incentives for photovoltaic systems to meet minimum energy-efficiency levels and performance requirements (PRC Sections 25780–25784). Section 25780 established that it is a goal of the state to establish a self-sufficient solar industry. The goals included establishing solar energy systems as a viable mainstream option for both homes and businesses within 10 years of adoption and placing solar energy systems on 50% of new homes within 13 years of adoption. SB 1, also termed "Go Solar California," was previously titled "Million Solar Roofs."

Assembly Bill 1470

This bill established the Solar Water Heating and Efficiency Act of 2007 (California Public Utilities Code Sections 2851–2869). The bill makes findings and declarations of the Legislature relating to the promotion of solar water heating systems and other technologies that reduce natural gas demand.

Assembly Bill 1109

Enacted in 2007, AB 1109 required CEC to adopt minimum energy efficiency standards for general-purpose lighting to reduce electricity consumption by 50% for indoor residential lighting and by 25% for indoor commercial lighting (PRC Section 25402.5.4).

Renewable Energy and Energy Procurement

Senate Bill 1078, Senate Bill 1368, Executive Order S-14-08, Executive Order S-21-09 and Senate Bill X1-2, and Senate Bill 1020

SB 1078 (2002) (California Public Utilities Code Section 399.11 et seq.) established the Renewables Portfolio Standard program, which required an annual increase in renewable generation by the utilities equivalent to at least 1% of sales, with an aggregate goal of 20% by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20% of their power from renewable sources by 2010 (see SB 107, EO S-14-08, and EO S-21-09).

SB 1368 (2006) required CEC to develop and adopt regulations for GHG emission performance standards for the long-term procurement of electricity by local publicly owned utilities (California Public Utilities Code Section 8340-8341). These standards must be consistent with the standards adopted by the California Public Utilities Commission (CPUC).

EO S-14-08 (2008) focused on the contribution of renewable energy sources to meet the electrical needs of California while reducing the GHG emissions from the electrical sector. This EO required that all retail suppliers of electricity in California serve 33% of their load with renewable energy by 2020. Furthermore, the EO directed state agencies to take appropriate actions to facilitate reaching this target. CNRA, in collaboration with CEC and the California Department of Fish and Wildlife, was directed to lead this effort.

EO S-21-09 (2009) directed CARB to adopt a regulation consistent with the goal of EO S-14-08 by July 31, 2010. CARB was further directed to work with CPUC and CEC to ensure that the regulation built on the Renewables Portfolio Standard program and was applicable to investor-owned utilities, publicly owned utilities, direct access providers, and community choice providers. Under this order, CARB was to give the highest priority to those

renewable resources that provide the greatest environmental benefits with the least environmental costs and impacts on public health, as well as those that can be developed the most quickly in support of reliable, efficient, cost-effective electricity system operations. On September 23, 2010, CARB initially approved regulations to implement a Renewable Electricity Standard; however, this regulation was not finalized because of subsequent legislation (SB X1-2) signed by Governor Brown in April 2011.

SB X1-2 expanded Renewables Portfolio Standard by establishing a renewable energy target of 20% of the total electricity sold to retail customers in California per year by December 31, 2013, and 33% by December 31, 2020, and in subsequent years. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation (30 megawatts or less), digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current and that meets other specified requirements with respect to its location. SB X1-2 applies to all electricity retailers in the state, including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All these entities must meet the renewable energy goals listed above.

SB 350 (2015) further expanded the Renewables Portfolio Standard program by establishing a goal of 50% of the total electricity sold to retail customers in California per year by December 31, 2030. In addition, SB 350 included the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses on which an energy-efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires CPUC, in consultation with CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal.

SB 100 (2018) increased the standards set forth in SB 350, establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024; 52% by December 31, 2027; and 60% by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon electricity resources does not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

SB 1020 (September 2022) revises the standards from SB 100, requiring the following percentage of retail sales of electricity to California end-use customers to come from eligible renewable energy resources and zero-carbon resources: 90% by December 31, 2035; 95% by December 31, 2040; and 100% by December 31, 2045.

Mobile Sources

State Vehicle Standards (Assembly Bill 1493 and Executive Order B-16-12)

AB 1493 (July 2002) was enacted in a response to the transportation sector accounting for more than half of California's CO_2 emissions. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by CARB to be vehicles that are primarily used for noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. EO B-16-12 (March 2012) required that state entities under the governor's direction and control support and facilitate the rapid commercialization of ZEVs. It ordered CARB, CEC, CPUC, and other relevant agencies to work with the Plug-In Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve benchmark goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 identified a target

reduction of GHG emissions from the transportation sector equaling 80% less than 1990 levels by 2050. This directive did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare. As explained under the "Federal Vehicle Standards" description above under Federal Regulations, EPA and NHTSA approved the SAFE Vehicles Rule Part One and Two, which revoked California's authority to set its own GHG emissions standards and set ZEV mandates in California.

As also explained above, in March 2022, EPA reinstated California's authority under the Clean Air Act to implement its own GHG emission standards and ZEV sales mandate. EPA's action concludes its reconsideration of the 2019 SAFE-1 rule by finding that the actions taken under the previous administration as a part of SAFE-1 were decided in error and are now entirely rescinded.

Heavy-Duty Diesel

CARB adopted the final Heavy-Duty Truck and Bus Regulation on December 31, 2014, to reduce diesel particulate matter, a major source of black carbon, and nitrogen oxides emissions from heavy-duty diesel vehicles (13 CCR, Part 2025). The rule requires that diesel particulate matter filters be applied to newer heavier trucks and buses by January 1, 2012, with older vehicles required to comply by January 1, 2015. The rule required nearly all diesel trucks and buses to be compliant with the 2010 model year engine requirement by January 1, 2023. CARB also adopted an Airborne Toxic Control Measure to limit idling of diesel-fueled commercial vehicles on December 12, 2013. This rule requires diesel-fueled vehicles with gross vehicle weights greater than 10,000 pounds to idle no more than 5 minutes at any location (13 CCR, Part 2485).

Executive Order S-1-07

EO S-1-07 (January 2007, implementing regulation adopted in April 2009) sets a declining Low Carbon Fuel Standard for GHG emissions measured in CO_2e grams per unit of fuel energy sold in California. The Low Carbon Fuel Standard requires reduction in the carbon intensity of California vehicle fuels (e.g., diesel and gasoline) by at least 20% by 2030 as compared to the 2010 baseline. The regulation also include crediting opportunities to promote ZEV adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve further decarbonization from the transportation sector (CARB 2023).

Senate Bill 375

SB 375 (California Government Code Section 65080) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 requires CARB to adopt regional GHG-reduction targets for the automobile and light-truck sector for 2020 and 2035 and to update those targets every 8 years. SB 375 requires the state's 18 regional metropolitan planning organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP) that will achieve the GHG-reduction targets set by CARB. If an MPO is unable to devise an SCS to achieve the GHG-reduction target, the MPO must prepare an alternative planning strategy demonstrating how the GHG-reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

An SCS does not regulate the use of land; supersede the land use authority of cities and counties; or require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it (California Government Code Section 65080[b][2][K]). Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

Advanced Clean Cars Program and Zero-Emissions Vehicle Program

The Advanced Clean Cars I program (January 2012) is an emissions-control program for model years 2015 through 2025 (CARB 2012). The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package of regulations: the low-emission vehicle regulation for criteria air pollutant and GHG emissions and a technology-forcing regulation for ZEVs that contributes to both types of emission reductions (CARB 2022c). The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75% less smog-forming pollution than the average new car sold in 2015. The ZEV program will act as the focused technology of the Advanced Clean Cars I program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid EVs in the 2018 to 2025 model years.

The Advanced Clean Cars II program, which was adopted in August 2022, established the next set of low-emission vehicle and ZEV requirements for model years after 2025 to contribute to meeting federal ambient air quality O_3 standards and California's carbon neutrality standards (CARB 2022c). The main objectives of Advanced Clean Cars II are as follows:

- Maximize criteria and GHG emission reductions through increased stringency and real-world reductions.
- Accelerate the transition to ZEVs through both increased stringency of requirements and associated actions to support wide-scale adoption and use.

The Advanced Clean Cars II rulemaking package also considers technological feasibility, environmental impacts, equity, economic impacts, and consumer impacts.

Executive Order N-79-20

EO N-79-20 (September 2020) requires CARB to develop regulations as follows: (1) passenger vehicle and truck regulations requiring increasing volumes of new ZEVs sold in the state towards the target of 100% of in-state sales by 2035; (2) medium- and heavy-duty vehicle regulations requiring increasing volumes of new zero-emission trucks and buses sold and operated in the state towards the target of 100% of the fleet transitioning to ZEVs by 2045 everywhere feasible and for all drayage trucks to be zero emission by 2035; and (3) strategies, in coordination with other state agencies, the EPA, and local air districts, to achieve 100% zero emissions from off-road vehicles and equipment operations in the state by 2035. EO N-79-20 called for the development of a ZEV Market Development Strategy, which was released February 2021, to be updated every 3 years, that ensures coordination and implementation of the EO and outlines actions to support new and used ZEV markets. In addition, the EO specifies identification of near-term actions and investment strategies to improve clean transportation, sustainable freight, and transit options and calls for development of strategies, recommendations, and actions by July 15, 2021, to manage and expedite the responsible closure and remediation of former oil extraction sites as the state transitions to a carbon-neutral economy.

Advanced Clean Trucks Regulation

The Advanced Clean Trucks Regulation was also approved by CARB in 2020. The purpose of the regulation is to accelerate the market for ZEVs in the medium- and heavy-duty truck sector and to reduce air pollutant emissions generated from on-road mobile sources (CARB 2021). The regulation has two components, a manufacturer sales requirement and a reporting requirement:

- **Zero-emission truck sales:** Manufacturers who certify Class 2b–8 chassis or complete vehicles with combustion engines will be required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales would need to be 55% of Class 2b–3 truck sales, 75% of Class 4–8 straight truck sales, and 40% of truck tractor sales.
- **Company and fleet reporting:** Large employers, including retailers, manufacturers, brokers, and others, will be required to report information about shipments and shuttle services. Fleet owners with 50 or more trucks will be required to report about their existing fleet operations. This information will help identify future strategies to ensure that fleets purchase available zero-emission trucks and place them in service where suitable to meet their needs.

Water

Senate Bill X7-7

SB X7-7, or the Water Conservation Act of 2009, required that all water suppliers increase their water use efficiency with an overall goal of reducing per-capita urban water use by 20% by December 31, 2020. Each urban water supplier was required to develop water use targets to meet this goal.

Executive Order B-29-15

In response to the ongoing drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25% relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives have become permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the state. In response to EO B-29-15, the California Department of Water Resources has modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development projects with smaller landscape areas.

Executive Order N-10-21

In response to a state of emergency due to severe drought conditions, EO N-10-21 (July 2021) called on all Californians to voluntarily reduce their water use by 15% from their 2020 levels. Actions suggested in EO N-10-21 include reducing landscape irrigation, running dishwashers and washing machines only when full, finding and fixing leaks, installing water-efficient showerheads, taking shorter showers, using a shut-off nozzle on hoses, and taking cars to commercial car washes that use recycled water.

Solid Waste

Assembly Bill 939, Assembly Bill 341, Assembly Bill 1826, and Senate Bill 1383

In 1989, AB 939, known as the Integrated Waste Management Act (California Public Resources Code Section 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board (replaced in 2010 by the California Department of Resources Recycling and Recovery [CalRecycle]), which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by the year 2000.

AB 341 (2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75% of solid waste generated be source-reduced, recycled, or composted by the year 2020, and annually thereafter. In addition, AB 341 required CalRecycle to develop strategies to achieve the state's policy goal. CalRecycle data from 2019 indicated that the California achieved a 37% diversion rate but will fall short of the 75% diversion rate. While California is unlikely to meet the 75% recycling goal by 2020 as set out in AB 341, CalRecycle remains committed to achieving this goal. Implementation of new legislation, such as SB 1383 and SB 1335, are important steps in reducing waste and building new markets for recycled materials.

AB 1826 (effective 2016) requires businesses to recycle their organic waste (i.e., food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste) depending on the amount of waste they generate per week. This law also requires local jurisdictions across the state to implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. The minimum threshold of organic waste generation by businesses decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

SB 1383 (2016) requires a 50% reduction in organic waste disposal from 2014 levels by 2020 and a 75% reduction by 2025—essentially requiring the diversion of up to 27 million tons of organic waste—to reduce GHG emissions. SB 1383 also requires that not less than 20% of edible food that is currently disposed be recovered for human consumption by 2025.

SB 1335 (2018) prohibits food service facilities in state-owned or operated properties from using food service packaging that is not reusable, recyclable, or compostable. CalRecycle is required to maintain a list of approved food service packaging types and criteria for their sustainability.

Other State Actions

Senate Bill 97

SB 97 (2007) directed the Governor's Office of Planning and Research and CNRA to develop guidelines under CEQA for the mitigation of GHG emissions. CNRA adopted the CEQA Guidelines amendments in December 2009, which became effective in March 2010.

Under the amended CEQA Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4[a]). The CEQA Guidelines require a lead agency to consider the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]). The CEQA Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures (14 CCR 15126.4[c]). The adopted amendments do not establish a GHG emission threshold, instead allowing a lead agency to develop, adopt, and apply its own thresholds of significance or those developed by other agencies or experts. CNRA also acknowledged that a lead agency could consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions (CNRA 2009).

With respect to GHG emissions, CEQA Guidelines Section 15064.4(a), as subsequently amended in 2018, states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. The CEQA Guidelines now note that an agency "shall have discretion to determine, in the context of a particular project, whether to: (1) Quantify greenhouse gas emissions resulting from a project; and/or (2) Rely on a qualitative analysis or performance-based standards" (14 CCR 15064.4[a]). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: the extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting; whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]).

Executive Order S-13-08

EO S-13-08 (November 2008) is intended to hasten California's response to the impacts of global climate change, particularly sea-level rise. Therefore, the EO directs state agencies to take specified actions to assess and plan for such impacts. The final 2009 California Climate Adaptation Strategy report was issued in December 2009, and an update, Safeguarding California: Reducing Climate Risk, followed in July 2014. To assess the state's vulnerability, the report summarizes key climate change impacts to the state for the following areas: agriculture, biodiversity and habitat, emergency management, energy, forestry, ocean and coastal ecosystems and resources, public health, transportation, and water. Issuance of Safeguarding California: Implementation Action Plans followed in March 2016. In January 2018, CNRA released the Safeguarding California Plan: 2018 Update, which communicates current and needed actions that state government should take to build climate change resiliency.

California State University Regulations

California State University Sustainability Policy

The California State University (CSU) Board of Trustees adopted its first systemwide Sustainability Policy in May 2014 and most recently revised the Sustainability Policy in May 2022. The Sustainability Policy was developed to integrate sustainability into all facets of the CSU, including academics, facilities operations, built environment, and student life. The Sustainability Policy focuses mainly on energy and GHG emissions and largely aligns with the State of California's energy and GHG emissions reduction goals (CSU 2022). It aims to reduce the environmental impact of construction and operation of buildings and to integrate sustainability across the curriculum through 11 broad policies, including university sustainability; CAP; energy resilience and procurement; energy conservation, carbon reduction, and utility management; water conservation; sustainable procurement; waste management; sustainable food service; sustainable building and lands practices; physical plant management; and transportation.

San Diego State University Climate Action Plan

The San Diego State University (SDSU) CAP was adopted in May 2017 to provide goals and strategies to achieve carbon neutrality and improve sustainability efforts campus-wide. The CAP includes results of a baseline emissions inventory that summarizes GHG emissions from campus operations in 2015 and projected emissions for future years to inform development of appropriate reduction strategies. While the SDSU CAP does include goals and strategies that would result in a reduction of GHG emissions at the project site, the SDSU CAP is not considered qualified per CEQA Guidelines Section 15183.5. Additionally, the CAP was prepared with a focus on

the SDSU campus location in the College Area of the City of San Diego. Therefore, inclusion of this plan is for informational purposes only.

Local

San Diego Association of Governments

As discussed above under the Mobile Sources subsection in the State subsection, the passage of SB 375 requires MPOs to prepare an SCS in their RTP. The San Diego Association of Governments (SANDAG) serves as the MPO for the San Diego region and is responsible for developing and adopting an SCS that integrates transportation, land use, and housing to meet GHG reduction targets set by CARB. The RTP/SCS is updated every 4 years in collaboration the 18 cities and unincorporated County of San Diego, in addition to regional, state, and federal partners. The most recent, San Diego Forward: The 2021 Regional Plan, was adopted in 2021 and provides guidance on meeting or exceed GHG targets through implementation of five key transportation strategies, including complete corridors, high-speed transit services, mobility hubs, flexible fleets, and a digital platform to tie the transportation system together. Through these strategies, the 2021 Regional Plan is projected to reduce per capita GHG emissions from cars and light-duty trucks to 20% below 2005 levels by 2035, exceeding the regions state-mandated target of 19% (SANDAG 2021).

City of San Diego Climate Action Plan

The City Council adopted the 2022 CAP in August 2022. The City's CAP establishes a community-wide goal of net zero GHG emissions by 2035 and identifies the following six key strategies to achieve the goals and targets of the plan (City of San Diego 2022a):

1. Decarbonization of the built environment
2. Access to clean and renewable energy
3. Mobility and land use
4. Circular economy and clean communities
5. Resilient infrastructure and health ecosystems
6. Emerging climate actions

In addition to the plan, the City provided a memorandum with guidance on addressing CEQA analysis of GHG emissions for public infrastructure projects (City of San Diego 2022b). Per the memorandum, environmental analysis for public infrastructure projects should include a discussion of overall consistency with each of the strategies of the City's CAP (listed above), specifically identifying project features that would meet goals of the plan.

Mission Valley Community Plan

The Mission Valley Community Plan Update is intended to be a blueprint for future development in Mission Valley, where the proposed project is located. The update was adopted by the City Council on September 10, 2019 (City of San Diego 2019). It provides Design Guidelines and Policies for Development to implement the City's 2015 CAP, maximize transit ridership, and increase mobility options, among others. The update references the proposed project, highlighting the roadway expansion as an important development to help support mobility within the eastern portion of the community.

3.7.3 Significance Criteria

The significance criteria used to evaluate the project impacts to greenhouse gases/climate change are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to greenhouse gas emissions would occur if the project would:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. [2]

CEQA Guidelines

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established thresholds for assessing whether the GHG emissions of a project, such as the proposed project, would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project's contribution to global climate change. In addition, while GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008), GHG emissions impacts must also be evaluated on a project-level under CEQA.

With respect to GHG emissions, CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or performance-based standards" (14 CCR 15064.4[a]). A lead agency may use a "model or methodology" to estimate greenhouse gas emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change" (14 CCR 15064.4[c]). The CEQA Guidelines provide that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment (14 CCR 15064.4[b]):

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

In addition, the CEQA Guidelines specify that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7[c]).

[2] The CSU acknowledges that at the time of preparation of the Air Quality and Greenhouse Gas Emissions Technical Report (Appendix B), the City's 2022 CAP was the subject of litigation, so any reference to the City's CAP and analysis of the project's potential conflict with the City's CAP is for informational purposes only.

The extent to which a project increases or decreases GHG emissions in the existing environmental setting should be estimated in accordance with Section 15064.4, Determining the Significance of Impacts from Greenhouse Gas Emissions, of the CEQA Guidelines. The CEQA Guidelines indicate that when calculating GHG emissions resulting from a project, lead agencies shall make a good-faith effort based on scientific and factual data (14 CCR 15064.4 [a]) and lead agencies have discretion to select the model or methodology deemed most appropriate for enabling decision makers to intelligently assess the project's incremental contribution to climate change (14 CCR 15064.4 [c]).

The CEQA Guidelines do not indicate an amount of GHG emissions that constitutes a significant impact on the environment. Instead, they authorize the lead agency to consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence (14 CCR 15064.4[a] and 15064.7[c]).

Governor's Office of Planning and Research Guidance

The Governor's Office of Planning and Research technical advisory titled CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, states that "public agencies are encouraged but not required to adopt thresholds of significance for environmental impacts. Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact" (OPR 2018). Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice" (OPR 2008).

Approach to Determining Significance

Given that neither the CSU, CARB, nor the San Diego Air Pollution Control District have established a numerical threshold of significance for GHG emissions for the project region, the approach for evaluating the project's impacts related to GHG emissions relies on consistency with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs. The consistency evaluation is the sole basis for determining the significance of the project's GHG-related impacts on the environment.

Nevertheless, and in accordance with Section 15064.4 of the CEQA Guidelines, GHG emissions resulting from implementation of the project were quantitatively estimated. The potential impacts from project-related GHG emissions were assessed based on the total increase above the existing environmental setting, which is currently undeveloped. The GHG emissions associated with implementation of the project were estimated using industry standard and accepted software tools, techniques, and emissions factors, as described below in the Methodology subsection. Estimation of emissions is for informational purposes only, for comparison with existing environmental conditions. The significance of the project's GHG impacts is based on the project's compliance with statewide GHG reduction regulations and requirements. Guidance on reduction strategies for GHG emissions has been provided at the state level through the CARB Scoping Plans and at the local level through the SANDAG RTP/SCS, the City's CAP, the CSU's Sustainability Policy, and the SDSU CAP.

If the proposed project is consistent with or exceeds the actions outlined in the applicable state plans and local plans, the project could appropriately rely on their use as showing compliance with performance-based standards adopted to fulfill the statewide goal for reducing GHG emissions. The project's compliance with regulatory

programs adopted by CARB and other state and local agencies is therefore used to evaluate the significance of the project's GHG emissions.

Methodology

Construction

Consistent with the air quality approach described in Section 3.2, Air Quality, CalEEMod 2022 was used to estimate potential project-generated GHG emissions during construction for both the Pre-Cast and Cast-in-Place construction methods. Construction of the project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 3.2 are also applicable for the estimation of construction-related GHG emissions. As such, please refer to Section 3.2 for a discussion of construction emissions calculation methodology and assumptions. For additional details see Appendix A, Air Quality and Greenhouse Gas Emissions CalEEMod Output Files, of Appendix B.

Operation

The proposed project is expected to have only minor increases in GHG emissions during operations related to street lighting and periodic maintenance (e.g., re-striping). As such, operational GHG emissions were not quantitatively estimated.

3.7.4 Impacts Analysis

The significance of the project's GHG emission impacts is determined through an evaluation of compliance with regulations and requirements adopted to implement statewide, regional, and local plans for the purpose of reducing GHG emissions. While the GHG emissions increase associated with the project was quantified, the estimate is provided for informational purposes in accordance with Section 15064.4 of the CEQA Guidelines and is not used for determination of significance. As such, the Appendix G thresholds are considered together below, beginning with the evaluation of the project's compliance with applicable plans.

Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Estimated Greenhouse Gas Emissions

As discussed above, project-generated GHG emissions are presented for informational purposes and are not used in determining the significance of potential GHG-related impacts. Construction of the project would result in GHG emissions, which are primarily associated with the use of off-road construction equipment, haul trucks, on-road vendor trucks, and worker vehicles. Given that the project would have minor operational emissions (lighting, periodic re-striping) and would result in a decrease in regional vehicle miles traveled (VMT) from existing conditions, operational emissions would be nominal and were not quantitatively estimated. Construction and operational GHG emissions related to the proposed project are discussed further below.

Construction Emissions

Pre-Cast Construction Method

CalEEMod 2022 was used to calculate the annual GHG emissions based on the construction assumptions presented in Section 3.2 Air Quality. On-site sources of GHG emissions include off-road equipment and off-site sources include vendor trucks and worker vehicles. Table 3.7-2 presents construction emissions for the project using the Pre-Cast construction method in 2025 from on-site and off-site emission sources.

Table 3.7-2. Pre-Cast Construction Method Estimated Annual Construction Greenhouse Gas Emissions

Year	CO_2	CH_4	N_2O	R	CO_2e
	Metric Tons per Year				
2025*	1,164.51	0.05	0.08	0.62	1,189.24
				Total	**1,189.24**
				Amortized 30-Year Construction Emissions	*39.64*

Source: See Appendix B for complete results.
Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; R = refrigerant; CO_2e = carbon dioxide equivalent; <0.01 = reported value less than 0.01.
The values shown are the annual emissions reflect CalEEMod "mitigated" output.
Totals may not add due to rounding.
* CalEEMod modeling presented in Appendix B for the Pre-Cast Scenario was prepared using an earlier construction date of 2024, however, work would occur in 2025 or later. The use of an earlier construction year provides a "worst-case scenario" estimate of emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

As shown in Table 3.7-2, the estimated total GHG emissions during construction using the Pre-Cast method of construction would would be approximately 1,189 MT CO_2e over the construction period. Estimated project-generated construction emissions amortized over 30 years[3] would be approximately 40 MT CO_2e per year. As with project-generated construction criteria air pollutant emissions, GHG emissions generated during construction of the project would be short-term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions.

Cast-in-Place Construction Method

CalEEMod 2022 was used to calculate the annual GHG emissions based on the construction assumptions presented in Section 3.2 Air Quality. On-site sources of GHG emissions include off-road equipment and off-site sources including vendor trucks and worker vehicles. Table 3.7-3 presents construction emissions for the project using the Cast-in-Place construction method in 2025 and 2026 from on-site and off-site emission sources.

[3] Consistent with industry standard practice and guidance provided in the South Coast Air Quality Management District's GHG guidance (SCAQMD 2008).

Table 3.7-3. Cast-in-Place Construction Method Estimated Annual Construction Greenhouse Gas Emissions

Year	CO_2	CH_4	N_2O	R	CO_2e
	Metric Tons per Year				
2025	1.215.93	0.05	0.09	0.82	1,246.02
2026	218.04	0.01	0.01	0.09	222.75
				Total	**1,468.77**
				Amortized 30-Year Construction Emissions	*48.96*

Source: See Appendix B for complete results.
Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; R = refrigerant; CO_2e = carbon dioxide equivalent; <0.01 = reported value less than 0.01. The values shown are the annual emissions reflect CalEEMod "mitigated" output.
Totals may not add due to rounding.

As shown in Table 3.7-3, the estimated total GHG emissions during construction using the Cast-in-Place method of construction would be approximately 1,468.77 MT CO_2e over the construction period. Estimated project-generated construction emissions amortized over 30 years[4] would be approximately 49 MT CO_2e per year. As with project-generated construction criteria air pollutant emissions, GHG emissions generated during construction of the project would be short-term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions.

Operational Emissions

Pre-Cast and Cast-in-Place Construction Methods

Once project construction is complete, the project would provide a two-lane roadway extension of Fenton Parkway south with a bridge over the San Diego River Park Road to Camino Del Rio North. The roadway extension would include separated bike lanes and sidewalks, providing a new high-water crossing over the San Diego River. Similar to existing conditions, there could be occasional routine maintenance (e.g., re-striping, re-paving) during operation of the roadway expansion; however, these activities would be minor and result in only a nominal increase GHG emissions.

Additionally, per the transportation study prepared for the proposed project, the project is expected to result in a decrease in VMT within a 3-mile and 5-mile radius because the project provides a more direct route to and from destinations (Appendix H). Because the project would result in a reduction in VMT, it would also necessarily result in a reduction in GHG emissions from vehicles. Moreover, as the vehicle fleet is replaced over time with more fuel-efficient vehicles and ZEVs, GHG emissions tied to the project will be reduced. Finally, through the installation of protected bike lanes and sidewalks, providing easy last-mile connections to the Metropolitan Transit System (MTS) Green Line trolley transit stop and regional bike networks, the project will also increase the use of multimodal transit, reducing reliance on vehicles and also reducing GHG emissions in the region.

As noted previously, there is no numeric threshold appropriate to evaluate the significance of project-generated GHG emissions. As such, the estimation of GHG emissions increase generated by the project provided above is for informational purposes in accordance with Section 15064.4 of the CEQA Guidelines. The significance of the

[4] Consistent with industry standard practice and guidance provided in the South Coast Air Quality Management District's GHG guidance (SCAQMD 2008).

project's GHG emission impacts is determined through an evaluation of compliance with regulations and requirements adopted to implement statewide, regional, and local plans for the purpose of reducing GHG emissions, as discussed under the threshold below. Based on the foregoing and the information discussed below, the project is not expected to generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment and therefore impacts in this regard would be **less than significant.**

Would the project generate conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Applicable plans for the proposed project include the CSU Sustainability Policy, as most recently revised in May 2022; the 2017 Climate Action Plan for SDSU (SDSU CAP); the City of San Diego's CAP, SANDAG's RTP/SCS, and CARB's Scoping Plan. Each of these plans is described below along with an analysis of the proposed project's potential to conflict with the related GHG emission reduction goals.

Pre-Cast and Cast-in-Place Construction Methods

Project Potential to Conflict with the California State University Sustainability Policy

As discussed previously, the CSU Sustainability Policy was developed to integrate sustainability into all facets of the CSU, including academics, facilities operations, built environment, and student life. The Sustainability Policy largely aligns with the state's energy and GHG emissions reduction goals and aims to reduce impacts from construction and operation activities associated with the CSU. Actions within the CSU Sustainability Policy address university sustainability; CAP; energy resilience and procurement; energy conservation, carbon reduction, and utility management; water conservation; sustainable procurement; waste management; sustainable food service; sustainable building and lands practices; physical plant management; and transportation. The proposed project would comply with all relevant requirements of the CSU Sustainability Policy, which include those related to waste management, and transportation.

To reduce emissions from solid waste, the CSU seeks to reduce landfill-bound waste to 50% of total campus waste by 2030 and divert at least 80% from the landfill by 2040 in pursuit of their zero-waste goal. The proposed project would be consistent with the CSU's solid waste targets as it would minimize waste during construction through compliance with the City's Construction and Demolition Debris Diversion Ordinance, which requires diversion of 65% of construction debris. The project would also not conflict with the CSU's future zero waste goals, as long-term operation is not anticipated to result in solid waste production.

To reduce emissions from transportation, the CSU Sustainability Policy encourages and promotes use of alternative transportation and the development of transportation demand management plans to reduce VMT at the CSU campuses. As discussed previously, the proposed project involves a roadway expansion and infrastructure enhancement to connect residents and businesses south of the San Diego River to land uses north of the river off Friars Road, including the SDSU Mission Valley development. The roadway expansion and bridge include separated bike lanes and sidewalks, which will promote alternative travel along the new high-water crossing over the San Diego River. The proposed project is not expected to increase VMT within the region, given that the expansion provides a more direct route to and from destinations. As such, the proposed project would support the CSU's goal of GHG emission reductions from mobile sources and waste. Therefore, the proposed project would not conflict with the CSU Sustainability Policy.

Project Potential to Conflict with the 2017 Climate Action Plan for San Diego State University

Emissions sources in the SDSU CAP's baseline inventory and emissions projections include energy use, solid waste, water use, and student and faculty/staff commutes (i.e., mobile source emissions) associated with activity at SDSU's main campus. Overall, emissions from energy use and mobile sources accounted for the majority of GHG emissions in the baseline inventory, and therefore they present the greatest opportunity for future GHG emissions reductions. Consistent with the SDSU CAP, the proposed project would include features that support SDSU's goals of reducing emissions from the energy and mobile sectors.

The CAP's vision for energy highlights a shift from natural gas–based co-generation toward grid energy and on-site renewables. For solid waste, the CAP aims to encourage recycling and move toward zero-waste in the future. The CAP's vision for water use is to encourage efficient landscaping (e.g., drought-resistant and native species, limited turf, and efficient irrigation systems) and ensure ultra-low flow and high-performance fixtures are used for potable systems. As a public infrastructure improvement, the proposed project will not result in significant energy use, and emissions related to energy would be limited to minimal streetlighting. The project would also not result in long-term increases in solid waste production but would minimize waste during construction through compliance with the City's Construction and Demolition Debris Diversion Ordinance, which requires diversion of 65% of construction debris. While there are no water use components anticipated with operation of the proposed project, all landscaping/re-planting associated with the proposed project would use drought-resistant and native species.

The SDSU CAP's vision for transportation emissions includes improvement of bicycle and pedestrian amenities and overall reduction in single-occupancy vehicle trips to the campus. As discussed previously, the proposed project involves a roadway expansion and infrastructure enhancement to connect residents and businesses south of the San Diego River to land uses north of the river off Friars Road, including the SDSU Mission Valley development, which was approved by the Board of Trustees of the CSU in 2020 (City of San Diego 2019). The roadway expansion and bridge include separated bike lanes and sidewalks, which would promote alternative travel along the new high-water crossing over the San Diego River. This new bicycle and pedestrian route in an area with limited north–south connectivity is expected to substantially reduce trip lengths for these modes and greatly encourage their use. Additionally, the controlled intersection crossings and designated bicycle facilities through intersections would enhance multimodal safety, in addition to enhancing first-mile/last-mile access to the existing Fenton Parkway trolley station. The proposed project is also expected to decrease VMT within the region, given that the expansion provides a more direct route to and from destinations. As such, the proposed project would support the vision of and not conflict with the relevant goals of the SDSU CAP.

Project Potential to Conflict with the City of San Diego's Climate Action Plan

The City's CAP is a local regulation and therefore is not binding on the CSU, which is a state agency. Nevertheless, because the City will ultimately own and operate the proposed project following its construction, and because the proposed project is located within the territorial limits of the City, an analysis of the proposed project's consistency with the City's CAP is provided for informational purposes. This analysis does not form the basis for concluding whether the project has a significant CEQA impact; it is informational only.

As discussed previously, the City's 2022 CAP included CAP Consistency Regulations (in replacement of their previous checklist) for general land use project-level analyses. For public infrastructure projects, the City prepared a memo (Climate Action Plan Consistency for Plan- and Policy-Level Environmental Documents and Public Infrastructure Projects Memo; see Appendix B), which outlines an alternative approach to evaluating project

consistency with the CAP that is more appropriate for infrastructure projects (City of San Diego 2022b). Per the City's recommended approach, environmental analysis for public infrastructure projects should include a discussion of overall consistency with each of the City's CAP key strategies, specifically identifying project features that would meet goals of the plan. The six key strategies of the CAP are provided below, with a discussion of the proposed project's consistency with each.

Strategy 1: Decarbonization of the Built Environment

Strategy 1 of the City's CAP recognizes the large emissions reduction potential from reducing the use of energy generated from fossil fuels and the use of natural gas in buildings. The City's CAP includes a goal to achieve zero emissions municipal buildings and operations by 2035. Actions to achieve this goal include use of LED streetlights and auto-dimming technology where public safety would not be compromised. Consistent with this strategy, streetlights installed on the new bridge and roadway expansion would use LED lights and incorporate auto-dimming, where appropriate. The proposed project does not involve construction or operation of new or existing buildings and would not conflict with the City's additional strategies to reduce emissions from building energy.

Strategy 2: Access to Clean and Renewable Energy

Strategy 2 of the City's CAP includes a goal of 100% renewable or GHG-free power for the City by 2030. To achieve this goal, the City plans to partner with San Diego Community Power to increase adoption of 100% renewable energy supply and to incentivize local generation of renewable energy resources, increase municipal ZEVs, and expand EV charging to encourage citywide adoption of electric vehicles and bicycles. The proposed project would result in roadway expansion and a vehicular and bicycle/pedestrian bridge providing a new high-water crossing over the San Diego River. The project does not propose any development that would typically support installation of EV charging infrastructure or necessitate renewable energy technologies (e.g., battery storage, solar, microgrids). The proposed project would not conflict with the City's ability to implement and achieve their renewable energy goals and would support alternative transportation in its capacity as a new connection for bicycle and pedestrian travel, as well as increased access to the MTS Fenton Parkway Station at the northern terminus of the bridge.

Strategy 3: Mobility and Land Use

The City's CAP Strategy 3 addresses mobile source emissions and land use patterns throughout the City. The strategy promotes bike and pedestrian projects to encourage alternative modes of transit, as well as actions to reduce traffic and congestion across the City. This new bicycle and pedestrian route in an area with limited north-south connectivity is expected to substantially reduce trip lengths for these modes and greatly encourage their use. Additionally, the controlled intersection crossings and designated bicycle facilities through intersections would enhance multimodal safety, in addition to enhancing first-mile/last-mile access to the existing MTS Green Line trolley stop, which is at the north end of the proposed bridge. The proposed project is consistent with this strategy as it provides new alternative travel over the San Diego River, including separated bike lanes and sidewalks for pedestrians to encourage and facilitate non-vehicle modes of travel.

Strategy 4: Circular Economy and Clean Communities

Strategy 4 of the City's CAP addresses waste and clean communities. To achieve their waste-related goals, the City proposes actions to change the waste stream; reduce municipal waste; encourage food waste prevention and food recovery; update, adopt, and implement the Zero Waste Plan; and capture methane from wastewater treatment facilities. Consistent with this strategy, the proposed project will comply with the City's Construction and

Demolition Debris Diversion Ordinance, diverting 65% of construction and demolition debris generated during proposed project construction. There would be no long-term increase in solid waste production associated with operation of the proposed project, which would therefore not impede achievement of the City's goals.

Strategy 5: Resilient Infrastructure and Healthy Ecosystems

The City's CAP also includes actions related to the natural and built environments to reflect the City's resiliency work to prepare for the impacts of climate change and minimize its negative effects. Per the City's guidance memo for analyzing consistency with the CAP, public infrastructure projects shall include project features that further the City's resiliency goals through increasing tree planting (e.g., replace street trees that are removed, add street trees to the public right-of-way, or offering street trees to adjacent property owners) or supporting climate resiliency, such as storm drain maintenance to prepare for greater prevalence of extreme rain events.

Consistent with this strategy, all vegetation removed during construction of the bridge would be replaced at a minimum ratio of 1:1 (see also Appendix C, Biological Resources Technical Report). The existing storm drain outlet located at the south terminus of the bridge would be relocated as part of this project to direct water further downstream away from bridge footings. A series of catchment basis and water quality/drainage features would also be located at the north terminus of the bridge. The City would continue to provide maintenance of these newly constructed facilities. The provision of an additional high-water crossing over the San Diego River also addresses the storm and flood-related effects of more intense storms associated with climate change and provides climate resilient infrastructure. As such, the proposed project would support the City's goals related to resilient infrastructure and healthy ecosystems.

Strategy 6: Emerging Climate Action

Strategy 6 of the City's CAP addresses emerging actions to reach emission reduction goals. Emerging actions include new policies, technological innovation, partnerships, and research that advances the City's net zero goal. While the proposed project does not explicitly propose emerging climate action strategies, as the vehicle fleet is replaced over time with more fuel-efficient vehicles and ZEVs, mobile GHG emissions associated with the project will decrease into the future. As such, implementation of the roadway expansion would not conflict with the City's achievement of this strategy.

Project Potential to Conflict with the SANDAG Regional Transportation Plan/Sustainable Communities Strategy

SANDAG's 2021 Regional Plan is an RTP/SCS, which is a regional plan and therefore is not binding on the CSU, which is a state agency. Nevertheless, because the proposed project is located within the study area for the RTP/SCS, an analysis of the proposed project's consistency with the RTP/SCS is provided for informational purposes. This analysis does not form the basis for concluding whether the project has a significant CEQA impact; it is informational only.

The primary objective of the RTP/SCS is to provide guidance for future regional growth (i.e., the location of new residential and non-residential land uses) and transportation patterns throughout the region, as stipulated under SB 375. As discussed previously, the proposed project includes a roadway expansion and infrastructure enhancement to connect residents and businesses south of the San Diego River to land uses north of the river. The proposed project would not promote population growth or increase VMT within the region, given that the expansion provides a more direct route to and from destinations.

Additionally, the proposed project would support the RTP/SCS key strategy related to complete corridors, which aims to provide roadways with dedicated, safe spaces for everyone, including people who walk, bike, drive, and ride transit. Consistent with this strategy, the proposed project includes protected bike lanes and sidewalks, as well as enhancing access to the existing MTS Green Line trolley stop, which is at the north end of the proposed bridge. As such, the project is presumed to have a less-than-significant VMT impact and would support the region and the goals of the RTP/SCS in achieving long-term climate goals through reduction of transportation-related GHG emissions.

Project Potential to Conflict with State Reduction Targets and CARB's 2022 Scoping Plan

The California State Legislature passed the Global Warming Solutions Act of 2006 (AB 32) to provide initial direction to limit California's GHG emissions to 1990 levels by 2020 and initiate the state's long-range climate objectives. Since the passage of AB 32, the state has adopted GHG emissions reduction targets for future years beyond the initial 2020 horizon year. For the proposed project, the relevant GHG emissions reduction targets include those established by SB 32 and AB 1279, which require GHG emissions be reduced to 40% below 1990 levels by 2030 and 85% below 1990 levels by 2045, respectively. In addition, AB 1279 calls upon the state to achieve net zero GHG emissions by no later than 2045 and achieve and maintain net negative GHG emissions thereafter.

As defined by AB 32, CARB is required to develop the Scoping Plan, which provides the framework for actions to achieve the state's GHG emission targets. The Scoping Plan is required to be updated every 5 years and requires CARB and other state agencies to adopt regulations and initiatives that will reduce GHG emissions statewide. The first Scoping Plan was adopted in 2008, with subsequent updates adopted in 2014, 2017, and (most recently) 2022. While the Scoping Plan is not directly applicable to specific projects, it does provide the official framework for the measures and regulations that will be pursued by the state's executive branch of government to reduce California's GHG emissions in alignment with the legislatively adopted targets. Therefore, a project would be found to not conflict with the statutes establishing statewide GHG reduction targets if it would meet the Scoping Plan policies and would not impede attainment of the goals therein.

CARB's 2017 Scoping Plan was the first to address the state's strategy for achieving the 2030 GHG reduction target set forth in SB 32 (CARB 2017a). The most recent 2022 Scoping Plan outlines the state's plan to reduce emissions and achieve carbon neutrality by 2045 in alignment with AB 1279 and assesses the state's progress towards meeting the 2030 SB 32 target (CARB 2022b). As such, given that SB 32 and AB 1279 are the relevant GHG emission targets, the 2017 and 2022 Scoping Plans that outline the strategy to achieve those targets are the most applicable to the proposed project.

To achieve the 2030 goal of 40% below 1990 GHG emission levels, the 2017 Scoping Plan included measures to promote renewable energy and energy efficiency (including the mandates of SB 350), measures to increase the stringency of the Low Carbon Fuel Standard, measures identified in the Mobile Source and Freight Strategies, measures identified in the proposed SLCP Plan, and measures to increase the stringency of SB 375 targets. To fill the gap in additional reductions needed to achieve the 2030 target, the 2017 Scoping Plan also recommended continuing the Cap-and-Trade Program and a measure to reduce GHGs from refineries by 20%. Many of these measures and programs would result in the reduction of project-related GHG emissions with no action required at the project level. These programs would benefit GHG emission reductions through increased energy efficiency and renewable energy production (SB 350), reduction in carbon intensity of transportation fuels (Low Carbon Fuel Standard), and the accelerated efficiency and electrification of the statewide vehicle fleet (Mobile Source Strategy). Implementation of these statewide programs would result in a reduction of operational GHG emissions over the project lifetime.

CARB approved the 2022 Scoping Plan in December 2022 to outline the state's plan to reduce anthropogenic emissions to 85% below 1990 levels by 2045 and achieve carbon neutrality by 2045 or earlier. The 2022 Scoping Plan also assesses the progress the state is making towards reducing GHG emissions by at least 40% below 1990 levels by 2030, as is required by SB 32 and laid out in the 2017 Scoping Plan. The carbon reduction programs included in the 2022 Scoping Plan build on and accelerate those currently in place, including moving to zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; and displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines) (CARB 2022d). Implementation of the measures and programs included in the 2022 Scoping Plan is largely the responsibility of policymakers and would result in the reduction of project-related GHG emissions with no action required at the project level. Given that the proposed project includes bike lanes and pedestrian sidewalks that encourage alternative modes of travel, project implementation would support the 2022 Scoping Plan's goals of displacing fossil-fuel fired electrical generation through enhancing connectivity and increasing accessibility with sustainable transit options.

The 2045 carbon neutrality goal required CARB to expand proposed actions in the 2022 Scoping Plan to include those that capture and store carbon in addition to those that reduce only anthropogenic sources of GHG emissions. The proposed project would not conflict with the state's carbon neutrality goals, including actions related to capturing and storing carbon. The 2022 Scoping Plan indicates that achieving carbon neutrality will require research, development, and deployment of additional methods to capture atmospheric GHG emissions (e.g., mechanical direct air capture). Given that the specific path to neutrality will require development of technologies and programs that are not currently known or available, the project's role in supporting the statewide goal would be speculative and cannot be wholly identified at this time.

Overall, the proposed project would comply with all regulations adopted in furtherance of the Scoping Plan to the extent applicable and required by law. As mentioned above, several Scoping Plan measures would result in reductions of project-related GHG emissions with no action required at the project level, including those related to energy efficiency, reduced fossil fuel use, and renewable energy production. As demonstrated above, the proposed project would not conflict with CARB's 2017 or 2022 Scoping Plan updates and with the state's ability to achieve the 2030 and 2045 GHG reduction and carbon neutrality goals.

As discussed above, the project's significance is based on its potential to conflict with the applicable plans adopted for the purpose of reducing GHG emissions, including the CSU Sustainability Policy, the 2017 SDSU CAP, the City's CAP, SANDAG's RTP/SCS, and CARB's Scoping Plan. As shown, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and the impact would be **less than significant**.

3.7.5 Cumulative Impacts

Would the Project result in cumulatively considerable impacts with regard to greenhouse gas emissions?

Due to the global nature of the assessment of GHG emissions and the effects of global climate change, GHG emissions analysis, by its nature, is a cumulative impact analysis. Therefore, the information and analysis presented above, to determine project-level impacts, applies here. As demonstrated above, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, the project's contribution to global climate change would not be cumulatively considerable. Cumulative impacts would be **less than significant**.

3.7.6 Summary of Impacts Prior to Mitigation

The project would result in less-than-significant impacts related to GHG emissions and no mitigation measures are required.

3.7.7 Mitigation Measures

No mitigation measures are required.

3.7.8 Level of Significance After Mitigation

The project would result in less-than-significant impacts related to GHG emissions and no mitigation measures are required.

3.8 Hazards and Hazardous Materials

This section describes the existing hazardous materials conditions of the project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Fenton Parkway Bridge Project (project).

A Notice of Preparation was circulated from May 22 to June 20, 2023. A total of 16 letters were received during this comment period. Comments received related to hazards and hazardous materials included discussions about emergency access, emergency response, and consistency with adopted emergency evacuation plans. Emergency access is further addressed in Section 3.13, Transportation. Please see Appendix A, NOP and Scoping Comments, for a complete compilation of comments received in response to the Notice of Preparation.

3.8.1 Existing Conditions

Environmental Setting

The project site is located south of Fenton Parkway and the Fenton Marketplace and north of Camino Del Rio North and would connect these two roadways. The project is located in the northeast portion of the Mission Valley community, in the central portion of the City of San Diego (City) metropolitan area. Surrounding uses include commercial and residential uses to the north, the San Diego State University (SDSU) Mission Valley development to the northeast, office and healthcare uses to the south, and open space to the east, including the San Diego River, which bisects the project site from east to west.

A review of topographic and satellite maps for the project site indicates that, aside from the northern portion of the project site where there is evidence of grading, the project site primarily consists of dense vegetation surrounding the San Diego River corridor. The project site has never been developed for any commercial, residential, retail, or industrial purpose, and there are no permanent structures currently located on the project site. As such, the project site is generally characterized as undeveloped land with native vegetation communities and non-vegetated channel or floodway. As previously discussed in Chapter 2, Project Description, the proposed bridge would be within the City's Multi-Habitat Planning Area and the City's Stadium Wetland Mitigation Site (no credit area).

Hazardous Materials Sites

Government Code Section 65962.5 requires the California Environmental Protection Agency to compile a list of hazardous waste and substances sites (Cortese List). While the Cortese List is no longer maintained as a single list, the following databases provide information that meet the Cortese List requirements:

1. List of Hazardous Waste and Substances sites from Department of Toxic Substances Control Envirostor database (California Health and Safety Code Sections 25220, 25242, 25356, and 116395)
2. List of leaking underground storage tank sites by county and fiscal year from the State Water Resources Control Board GeoTracker database (California Health and Safety Code Section 25295)
3. List of solid waste disposal sites identified by the State Water Resources Control Board with waste constituents above hazardous waste levels outside the waste management unit (California Water Code Section 13273[e] and 14 CCR Section 18051)
4. List of "active" Cease and Desist Orders and Cleanup and Abatement Orders from the State Water Resources Control Board (California Water Code Sections 13301 and 13304)

5. List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the California Health and Safety Code, identified by the Department of Toxic Substances Control

Dudek conducted a search of the above-described databases that provide information on Cortese List sites. Based on the environmental conditions, distance from the project site, and regulatory status of each of the Cortese List sites, it was determined there are no Cortese List sites on, adjoining, or near the project site that have affected the environmental conditions of the project site.

Dudek also reviewed other online databases that provide environmental information on release and cleanup cases in the State of California. While these databases are not included in the Cortese List, they may provide additional information regarding potential environmental contamination on the project site. Table 3.8-1 provides a summary of the databases searched.

Table 3.8-1. Online Database Listings

Database	Details
California Environmental Protection Agency (CalEPA) https://siteportal.calepa.ca.gov/nsite/	The CalEPA Regulated Site Portal is a website that combines data about environmentally regulated sites and facilities in California into a single, searchable database and interactive map. Data sources include California Environmental Reporting System (CERS), EnviroStor, GeoTracker, California Integrated Water Quality System (CIWQS), and Toxics Release Inventory (TRI).
Department of Toxic Substance Control (DTSC) EnviroStor https://www.envirostor.dtsc.ca.gov/	The DTSC's data management system for tracking cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known contamination or sites where there may be reasons for further investigation.
Regional Water Quality Control Board (RWQCB) GeoTracker http://geotracker.waterboards.ca.gov/	The California RWQCB's data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater. GeoTracker contains records for sites that require cleanup, various unregulated projects, and permitted facilities. Sites include LUSTs, Department of Defense, Cleanup Program, Irrigated Lands, Oil and Gas Production, Permitted USTs, and Land Disposal Sites.

Table 3.8-1. Online Database Listings

Database	Details
National Pipeline Mapping System https://www.npms.phmsa.dot.gov/	The National Pipeline Mapping System Public Map Viewer is a web-based application designed to assist the general public with displaying and querying data related to gas transmission and hazardous liquid pipelines, liquefied natural gas plants, and breakout tanks under Department of Transportation Pipeline and Hazardous Material Safety Administration jurisdiction.
California Geologic Energy Management (CalGEM) Well Finder https://www.conservation.ca.gov/calgem/Pages/WellFinder.aspx	The CalGEM Finder is a web-based application that plots reported locations and other information for oil and gas wells and other types of related facilities across California.

Source: CalEPA 2023.

Based on the environmental conditions, distance from the project site, and regulatory status of each of the sites identified in the databases shown in Table 3.8-1, the following sites are either on, adjoining, or nearby the project site and have the potential to impact the environmental condition of the project site.

SDSU Mission Valley Stadium: During construction of the new stadium, SDSU entered into a voluntary agreement with the County of San Diego (County) Department of Environmental Health & Quality due to soil contamination concerns during construction. A soil management plan was prepared and submitted to the Department of Environmental Health & Quality for review and approval, and a soil management completion report was also submitted following implementation of the soil management plan (Group Delta 2023). While the stadium project adjoins the project site to the east, soil impacts, and therefore soil management activities, do not impact the project site.

The stadium site also has a history of groundwater contamination associated with a release from the Kinder Morgan Mission Valley Terminal, which is a petroleum fuel terminal north of the stadium. Investigations and remediation associated with this site were identified on GeoTracker; petroleum transport pipelines and petroleum storage tanks located on the Mission Valley Terminal were identified on the National Pipeline Mapping System database. As of January 29th, 2021, contaminated groundwater remediation has been completed and additional assessments requested by San Diego Regional Water Quality Control Board (RWQCB) have been fulfilled and a no Further Action was requested and concurred by the San Diego RWQCB on May 7th, 2021 (Jackson, pers comm., 2023). The final No Further Action letter was issued for the Kinder Morgan Mission Valley site on October 12, 2022 (San Diego RWQCB 2022). Based on regulatory status and available information, the releases associated with the Kinder Morgan facility that impacted SDSU Mission Valley have not affected the environmental condition of the project site. Additionally, the pipelines connecting to the Kinder Morgan facility do not cross on or adjoin the project site.

Fire Hazards and Emergency Response

The project site and surrounding area is located in a Very High Fire Hazard Severity Zone (VHFHSZ) within the local responsibility area as mapped by the California Department of Forestry and Fire Protection and the City of San Diego Fire-Rescue Department (please see Section 3.16, Wildfire, for an analysis of the project's relationship to the

VHFHSZ) (CAL FIRE 2023). The project site is located within the City's Fire-Rescue Department jurisdiction (City of San Diego 2023a).

The City's Office of Homeland Security oversees the City's emergency prevention and protection program, mitigation and finance program, response and recovery program, and regional training program. Through these programs, the Office of Homeland Security supports and coordinates numerous risk management planning efforts; trains City employees; assists with the integration of emergency plans; ensures information flow to the public to assist in their emergency preparation and response; interfaces with county, state, and federal jurisdictions; maintains the City's two emergency operations centers; and secures grants from state and federal agencies related to homeland security (City of San Diego 2017).

The City is a participating jurisdiction in the County Multi-Jurisdictional Hazard Mitigation Plan. The Multi-Jurisdictional Hazard Mitigation Plan was originally prepared in July 2010 and was updated in February 2023 to meet federal and state requirements for disaster preparedness and gain eligibility for funding and technical assistance from state and federal hazard mitigation programs. The update also included revisions to reflect current hazards that threaten the county and the programs that have been implemented to reduce such hazards. The plan includes a risk assessment to enable local jurisdictions to identify and prioritize appropriate mitigation actions to reduce losses from potential hazards, including flooding, earthquakes, fires, and human-made hazards. To address potential hazards, the plan then incorporates mitigation goals and objectives, mitigation actions and priorities, an implementation plan, and documentation of the mitigation planning process for each of the 18 participating jurisdictions, including the City (County of San Diego 2023).

In addition to the Multi-Jurisdictional Hazard Mitigation Plan, the City also participates in the County's Unified San Diego County Emergency Services Organization and Operational Area Emergency Operations Plan, which discuss and address emergency situations, including evacuation. The Emergency Operations Plan notes that major interstates, highways, and prime arterials make up the primary evacuation routes within the County (County of San Diego 2022). The project site is situated between three primary evacuation routes within the County. Interstate (I) 15 is located approximately 0.7 miles east of the site, I-805 is approximately 0.5 miles west, and I-8 is approximately 0.13 miles south of the project site.

3.8.2 Relevant Plans, Policies, and Ordinances

Federal

U.S. Environmental Protection Agency

Title 40 U.S. Code of Federal Regulations, Chapter 1, Subchapter I, Parts 260–265 – Solid Waste Disposal Act/Federal Resource Conservation and Recovery Act of 1976

The Solid Waste Disposal Act, as amended and revised by the Resource Conservation and Recovery Act, establishes requirements for the management of solid wastes (including hazardous wastes), landfills, underground storage tanks, and certain medical wastes. The statute also addresses program administration; implementation and delegation to the states; enforcement provisions and responsibilities; and research, training, and grant funding. Provisions are established for the generation, storage, treatment, and disposal of hazardous waste, including requirements addressing generator record keeping, labeling, shipping paper management, placarding, emergency response information, training, and security plans.

Title 40 U.S. Code of Federal Regulations, Chapter 1, Subchapter I, Part 273 – Universal Waste

This regulation governs the collection and management of widely generated waste, including batteries, pesticides, mercury-containing equipment, and bulbs. This regulation streamlines the hazardous waste management standards and ensures that such waste is diverted to the appropriate treatment or recycling facility.

Title 40 U.S. Code of Federal Regulations, Chapter 1, Subchapter I, Part 112 – Oil Pollution Prevention

Oil Pollution Prevention regulations require the preparation of a spill prevention, control, and countermeasure plan if oil is stored in excess of 1,320 gallons in aboveground storage (or if there is a buried capacity of 42,000 gallons). Spill prevention, control, and countermeasure regulations place restrictions on the management of petroleum materials and, therefore, have some bearing on hazardous materials management.

Title 40 U.S. Code of Federal Regulations, Chapter 1, Subchapter C, Part 61 – National Emission Standards for Hazardous Air Pollutants, Subpart M – National Emission Standard for Asbestos

This regulation established National Emission Standards for Hazardous Air Pollutants and names asbestos containing material (ACM) as one of these materials. ACM use, removal, and disposal are regulated by the U.S. Environmental Protection Agency (EPA) under this law. In addition, notification of friable ACM removal prior to a proposed demolition project is required by this law.

Title 42 U.S. Code of Federal Regulations, Chapter 116 – Emergency Planning and Community Right-to-Know Act

The Emergency Planning and Community Right-to-Know Act provides for public access to information about chemical hazards. This law and its regulations, included in Title 40 U.S. Code of Federal Regulations, Parts 350-372, establish four types of reporting obligations for facilities storing or managing specified chemicals: emergency planning, emergency release notification, hazardous chemical storage reporting requirements, and toxic chemical release inventory. EPA maintains a database, termed the Toxic Release Inventory, which includes information on reportable releases to the environment.

Title 15 U.S. Code of Federal Regulations, Chapter 53, Subchapter I, Section 2601 et seq. – Toxic Substances Control Act of 1976

The Toxic Substances Control Act of 1976 empowers EPA to require reporting, record keeping, and testing, as well as to place restrictions on the use and handling of chemical substances and mixtures. This regulation phased out the use of asbestos and ACM in new building materials and it also set requirements for the use, handling, and disposal of ACM and lead-based paint waste. As discussed above, EPA has also established the National Emission Standards for Hazardous Air Pollutants, which govern the use, removal, and disposal of ACM as a hazardous air pollutant, mandate the removal of friable ACM before a building is demolished, and require notification before demolition. In addition to asbestos, ACM, and lead-based paint requirements, this regulation also banned the manufacturing of polychlorinated biphenyls and sets standards for the use and disposal of existing polychlorinated biphenyl–containing equipment or materials.

Regional Screening Levels

EPA provides regional screening levels (RSLs) for chemical contaminants to provide comparison values for residential and commercial/industrial exposures to soil, air, and tap water (drinking water). RSLs are available on EPA's website and provide a screening level calculation tool to assist risk assessors, remediation project managers, and others involved with risk assessment and decision making. RSLs are also used when a site is initially investigated to determine if potentially significant levels of contamination are present to warrant further investigation. In California, Department of Toxic Substance Control (DTSC) Human and Ecological Risk Office (HERO) incorporated the EPA RSLs into the HERO Human Health Risk Assessment. HERO created Human Health Risk Assessment Note 3, which incorporates HERO recommendations and DTSC-modified screening levels based on review of the EPA RSLs. The DTSC-modified screening level should be used in conjunction with the EPA RSLs to evaluate chemical concentrations in environmental media at California sites and facilities.

U.S. Department of Labor, Occupational Safety and Health Administration

Title 29 U.S. Code of Federal Regulations, Part 1926 et seq. – Safety and Health Regulations for Construction

These standards require employee training; personal protective equipment; safety equipment; and written procedures, programs, and plans for ensuring worker safety when working with hazardous materials or in hazardous work environments during construction activities, including renovations and demolition projects and the handling, storage, and use of explosives. These standards also provide rules for the removal and disposal of asbestos, lead, lead-based paint, and other lead materials. Although intended primarily to protect worker health and safety, these requirements also guide general facility safety. This regulation also requires that an engineering survey is prepared prior to demolition.

Title 29 U.S. Code of Federal Regulations, Part 1910 et seq. – Occupational Safety and Health Standards

Under this regulation, facilities that use, store, manufacture, handle, process, or move hazardous materials are required to conduct employee safety training, inventory safety equipment relevant to potential hazards, have knowledge on safety equipment use, prepare an illness prevention program, provide hazardous substance exposure warnings, prepare an emergency response plan, and prepare a fire prevention plan.

Federal Response Plan

The Federal Response Plan of 1999, as amended in 2003 (FEMA 2003) is a signed agreement among 27 federal departments and agencies, including the American Red Cross, that (1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency, (2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act and individual agency statutory authorities, and (3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a presidential declaration of a major disaster or emergency.

International Fire Code

The International Fire Code (IFC), created by the International Code Council, is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The IFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The IFC and the International Building Code use a hazard classification system to determine what measures are required to protect against structural fires. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, IFC employs a permit system based on hazard classification. The IFC is updated every 3 years (the most recent is the 2021 IFC).

State

California Unified Program for Management of Hazardous Waste and Materials

California Health and Safety Code, Division 20, Chapter 6.11, Sections 25404–25404.9 – Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

Under the California Environmental Protection Agency, the DTSC and Enforcement and Emergency Response Program administer the technical implementation of California's Unified Program, which consolidates the administration, permit, inspection, and enforcement activities of several environmental and emergency management programs at the local level (DTSC 2024). Certified Unified Program Agencies (CUPAs) implement the hazardous waste and materials standards. This program was established under the amendments to the California Health and Safety Code made by Senate Bill 1082 in 1994. The following programs make up the Unified Program:

- Aboveground Petroleum Storage Act Program
- Area Plans for Hazardous Materials Emergencies
- California Accidental Release Prevention (CalARP) Program
- Hazardous Materials Release Response Plans and Inventories (hazardous materials business plans [HMBPs])
- Hazardous Material Management Plans and Hazardous Material Inventory Statements
- Hazardous Waste Generator and On-Site Hazardous Waste Treatment (Tiered Permitting) Program
- Underground Storage Tank Program

The CUPA for the City is the County Department of Environmental Health & Quality, Hazardous Materials Division.

Title 19 California Code of Regulations, Chapter 2, Subchapter 3, Sections 2729–2734/California Health and Safety Code, Division 20, Chapter 6.95, Sections 25500–25520

This regulation requires the preparation of an HMBP by facility operators. The HMBP identifies the hazards, storage locations, and storage quantities for each hazardous chemical stored on site. The HMBP is submitted to the CUPA for emergency planning purposes. The project site is currently subject to these requirements and there is an HMBP in place.

Hazardous Waste Management

Title 22 California Code of Regulations, Division 4.5 – Environmental Health Standards for the Management of Hazardous Waste

In the State of California, DTSC regulates hazardous wastes. These regulations establish requirements for the management and disposal of hazardous waste in accordance with the provisions of the California Hazardous Waste Control Act and federal Resource Conservation and Recovery Act. As with federal requirements, waste generators must determine if their wastes are hazardous according to specified characteristics or lists of wastes. Hazardous waste generators must obtain identification numbers; prepare manifests before transporting waste off site; and use only permitted treatment, storage, and disposal facilities. Standards also include requirements for record keeping, reporting, packaging, and labeling. Additionally, while not a federal requirement, California requires that hazardous waste be transported by registered hazardous waste transporters.

In addition, Chapter 31, Waste Minimization, Article 1, Pollution Prevention, and the Hazardous Waste Source Reduction and Management Review of these regulations require that generators of 12,000 kilograms/year of typical, operational hazardous waste evaluate their waste streams every 4 years and, as applicable, select and implement viable source reduction alternatives. This act does not apply to nontypical hazardous waste, including ACM and polychlorinated biphenyls, among others).

Title 22 California Health and Safety Code, Division 20, Chapter 6.5 – California Hazardous Waste Control Act of 1972

This legislation created the framework under which hazardous wastes must be managed in California. It provides for the development of a state hazardous waste program (regulated by DTSC) that administers and implements the provisions of the federal Resource Conservation and Recovery Act program. It also provides for the designation of California-only hazardous wastes and development of standards that are equal to or, in some cases, more stringent than, federal requirements. The CUPA is responsible for implementing some elements of the law at the local level.

Human Health Risk Assessment Note 3 - DTSC-Modified Screening Levels

Human Health Risk Assessment Note 3 presents recommended screening levels (derived from the EPA RSLs using DTSC-modified exposure and toxicity factors) for constituents in soil, tap water, and ambient air. The DTSC-modified screening levels should be used in conjunction with the EPA RSLs to evaluate chemical concentrations in environmental media at California sites and facilities.

California Department of Transportation/California Highway Patrol

Title 13 California Code of Regulations, Division 2, Chapter 6

California regulates the transportation of hazardous waste originating or passing through the state. The California Highway Patrol (CHP) and the California Department of Transportation have primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies. CHP enforces materials and hazardous waste labeling and packing regulations that prevent leakages and spills of material in transit and provides detailed information to cleanup crews in the event of an incident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are all part of the responsibility of CHP. CHP conducts regular inspections of licensed transporters to ensure regulatory compliance.

The California Department of Transportation has emergency chemical spill identification teams at locations throughout the state. Hazardous waste must be regularly removed from generating sites by licensed hazardous waste transporters. Transported materials must be accompanied by hazardous waste manifests.

Environmental Cleanup Levels

Environmental Screening Levels

Environmental screening levels (ESLs) provide conservative screening levels for over 100 chemicals found at sites with contaminated soil and groundwater. They are intended to help expedite the identification and evaluation of potential environmental concerns at contaminated sites. The ESLs are prepared by the staff of the San Francisco Bay RWQCB. While ESLs are not intended to establish policy or regulations, they can be used as conservative screening levels for sites with contamination. Other agencies in California may elect to use the ESLs; in general, the ESLs could be used at any site in the State of California, provided all stakeholders agree. Dudek's recent experience indicates that regulatory agencies in the San Diego region use the ESLs as regulatory cleanup levels. The ESLs are not generally used at sites where the contamination is solely related to a leaking underground storage tank; those sites are instead subject to the Low-Threat Underground Storage Tank Closure Policy.

Occupational Safety and Health

Title 8 California Code of Regulations – Safety Orders

Under the California Occupational Safety and Health Act of 1973, the California Occupational Safety and Health Administration (Cal/OSHA) is responsible for ensuring safe and healthful working conditions for California workers. Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations in Title 8 of the California Code of Regulations. Cal/OSHA hazardous substances regulations include requirements for safety training, availability of safety equipment, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA also enforces hazard communication program regulations, which contain training and information requirements, including procedures for identifying and labeling hazardous substances. The hazard communication program also requires that material safety data sheets be available to employees and that employee information and training programs be documented.

In Division 1, Chapter 4, Subchapter 4, Construction Safety Orders, construction safety orders are listed; they include rules for demolition, excavation, explosives work, working around fumes and vapors, pile driving, vehicle and traffic control, crane operation, scaffolding, fall protection, and fire protection and prevention, among others.

California Building Standards Commission

Title 24 California Code of Regulations – California Building Standards Code

The California Building Standards Code is a compilation of three types of building standards from three different sources:

- Building standards that have been adopted by state agencies without change from building standards contained in national model codes
- Building standards that have been adopted and adapted from the national model code standards to meet California conditions

- Building standards authorized by the California legislature that constitute extensive additions not covered by the model codes that have been adopted to address particular California concerns

Among other rules, the California Building Standards Code contains requirements regarding the storage and handling of hazardous materials. The chief building official at the local government level (i.e., the City) must inspect and verify compliance with these requirements prior to issuance of an occupancy permit.

California Forestry and Fire Protection

2018 Strategic Fire Plan for California

California Public Resources Code, Sections 4114 and 4130, authorize the State Board of Forestry to establish a fire plan that establishes the levels of statewide fire protection services for State Responsibility Area lands. These levels of service recognize other fire protection resources at the federal and local level that collectively provide a regional and statewide emergency response capability. In addition, California's integrated mutual aid fire protection system provides fire protection services through automatic and mutual aid agreements for fire incidents across all ownerships. The California fire plan is the state's road map for reducing the risk of wildfire through planning and prevention to reduce firefighting costs and property losses, increase firefighter safety, and contribute to ecosystem health.

California State Fire Marshal

California Emergency Services Act

Under the Emergency Services Act (California Government Code, Section 8550 et seq.), the State of California developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an integral part of the plan, which is administered by the Governor's Office of Emergency Services. The Office of Emergency Services coordinates the responses of other agencies, including EPA, CHP, RWQCBs, air quality management districts, and county disaster response offices.

California Accidental Release Prevention Program

Similar to the EPA Risk Management Program, the CalARP Program (19 CCR 2735.1 et seq.) regulates facilities that use or store regulated substances, such as toxic or flammable chemicals, in quantities that exceed established thresholds. Under the regulations, industrial facilities that handle hazardous materials above threshold quantities are required to prepare and submit an HMBP to the local CUPA via the California Environmental Reporting System. As part of the HMBP, a facility is further required to specify applicability of other state regulatory programs. The overall purpose of the CalARP Program is to prevent accidental releases of regulated substances and reduce the severity of releases that may occur. The CalARP Program meets the requirements of the EPA Risk Management Program, which was established pursuant to the Clean Air Act amendments.

Local

Because SDSU is a component of the California State University, which is a state agency, the proposed project is not subject to local government planning and land use plans, policies, or regulations. However, for informational purposes, SDSU has considered the following planning documents and the project site's location within, and relationship to, each. The proposed project would be subject to federal and state agency planning documents

described above but would not be subject to regional or local planning documents such as the City's General Plan, Mission Valley Community Plan, or San Diego Municipal Code. However, for informational purposes, the proposed project has considered local planning documents.

San Diego County Emergency Services

2022 Unified San Diego County Emergency Services Organization and County of San Diego Emergency Operations Plan

The Emergency Operations Plan includes a comprehensive emergency management system that provides planned response in disaster situations associated with natural disasters, technological incidents, terrorism, and nuclear-related incidents. The plan also describes tasks and overall responsibilities for protecting life and property and identifies sources of outside support. The plan is for use by the County and its cities to respond to major emergencies and disasters.

City of San Diego County Urban Development and Safety

2023 City of San Diego General Plan – Public Facilities, Services, and Safety Element

The City of San Diego General Plan includes goals and policies related to the City's disaster preparedness program, which focuses on the prevention of, response to, and recovery from natural, technological, and human-made disasters (City of San Diego 2023b). The City's disaster preparedness efforts include oversight of the City's emergency operations center, and the City participates in the County's Multi-Jurisdictional Hazard Mitigation Plan, which identifies risks posed by both natural and human-made disasters.

2015 City of San Diego Land Development Manual, Project Submittal Requirements, Section 3 – Construction Permits – Grading and Public Right-of-Way

This section of the City's Land Development Manual applies to construction permit applications for grading on private property, as well as to the construction, reconstruction, or repair of improvements within the public right-of-way. City guidelines for obtaining grading permits and public right-of-way permits are incorporated into the Land Development Manual, and, depending on the characteristics of the project and project site, the permittee may be required to provide a grading plan, construction plan, geotechnical study, drainage study, water quality study, traffic control plan, and structural calculations. In general, this review is a ministerial process whereby approval is granted if the regulations are met.

San Diego Municipal Code, Chapter 5: Public Safety, Morals, and Welfare, Article 5: Fire Protection and Prevention

Chapter 5, Article 5 of the San Diego Municipal Code (referred to as the Fire Code) includes portions of the California Fire Code and IFC. As of January 1, 2014, the City adopted the 2013 California Codes and its referenced standards. However, local amendments to the 2013 edition of the California Fire Code are currently under review and have not yet been adopted.

3.8.3 Significance Criteria

The significance criteria used to evaluate the project impacts related to hazards and hazardous materials are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to hazards and hazardous material would occur if the project would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
2. 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.
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as result, would it create a significant hazard to the public or the environment.
5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area.
6. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
7. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

Based on the results of the initial study prepared for the proposed project (Appendix A), the following thresholds are evaluated herein:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
2. 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.
6. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
7. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

3.8.4 Impacts Analysis

Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or accidental release of hazardous materials?

Pre-Cast and Cast-in-Place Construction Methods

The proposed project consists of the construction of a vehicular and pedestrian bridge and public right-of-way road improvements. As such, operation of the project would not result in the routine transport, use, or disposal of hazardous materials.

Construction activities for the proposed project would result in hazardous materials (e.g., asphalt, fuels, oils, solvents, paints, lubricants, cleaners) routinely transported, stored, and used at the project site during construction. The routine transportation, use, and disposal of hazardous materials during construction may pose health and safety hazards to construction workers if the hazardous materials are improperly handled, or to nearby residents and the environment if the hazardous materials are accidentally released into the environment. The routine handling and use of hazardous materials by workers would be performed in accordance with federal Occupational Safety and Health Administration regulations, which include training requirements for workers and a requirement that hazardous materials are accompanied by manufacturer's Safety Data Sheets. Cal/OSHA regulations include requirements for protective clothing, training, and limits on exposure to hazardous materials. Compliance with these existing regulations would ensure that workers and nearby residents are protected from exposure to hazardous materials that may be transported, stored, or used on site.

Once operational, it is assumed that vehicles carrying potentially hazardous materials would travel across the bridge. In the event of an accidental release of hazardous materials, the bridge would have curbs and concrete barriers to contain spill. Bridge drains would not flow directly into the river and would first be intercepted by stormwater treatment infrastructure. Compliance with the existing regulations for hazardous materials discussed above would ensure that the potential impacts related to the routine transport, use, storage, or disposal of hazardous materials, regardless of the construction method, would be **less than significant**.

Would the project 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?

Pre-Cast and Cast-in-Place Construction Methods

As discussed in the threshold above, compliance with applicable regulations relating to hazardous materials, including Cal/OSHA requirements, during construction activities would ensure that potential impacts relating to the routine transport, use, storage, or disposal of hazardous materials would be reduced to a less-than-significant level. Furthermore, construction of the project would not be expected to 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.

The proposed project consists of the construction of a vehicular and pedestrian bridge and public right-of-way road improvements. Due to the nature of the project, operations would not result in the handling, use, or transportation of hazardous materials; however, once operational, it is assumed that vehicles carrying potentially hazardous materials would travel across the bridge. In the event of an accidental release of hazardous materials, the bridge would have curbs and concrete barriers to contain spill. Bridge drains would not flow directly into the river and would first be intercepted by stormwater treatment infrastructure. Compliance with the existing regulations discussed above would ensure the project would not 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. Impacts during construction of either method and during operation would be **less than significant.**

Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Pre-Cast and Cast-in-Place Construction Methods

It is not anticipated that any road closures would be necessary during construction of the proposed bridge for either of the construction methods. Existing travel lanes on Camino Del Rio North may be shifted or narrowed to accommodate bridge construction and replacement/relocation of traffic signal poles, curbs, gutters, and sidewalks. The majority of construction activity would occur outside of existing roadways. However, targeted lane closures to complete the traffic signal and striping adjustments at Camino Del Rio North at Mission City Parkway are anticipated. Temporary traffic control measures (e.g., lane closures, signage) would be provided during such closures, as well as around identified construction laydown/staging areas. While the proposed project does include public right-of-way improvements, the roadways involved (River Road, Mission City Parkway, and Camino Del Rio North) are not identified as major evacuation routes, such as I-15, I-8, or I-805, in the County's General Plan. As such, construction of the proposed vehicular and pedestrian bridge would not physically interfere with or impair implementation of any emergency response or evacuation plan, including the Office of Homeland Security Emergency Operations Plan. Impacts would be less than significant and no mitigation would be required.

Completion and operation of the project would result in a new multimodal access/connection point to areas north and south of the San Diego River corridor. This new connection would have the potential to interfere with implementation of an emergency response or evacuation plan because it would potentially provide a new route of transportation. Refer to Section 3.13 for an analysis of transportation-related impacts. The bridge would serve as an additional access route for stadium events, as well as nearby existing and proposed residential, commercial, and business uses. Included in the proposed project plans for the bridge is a 10-foot center lane that could provide an additional optional traffic lane during emergency or stadium events. Likewise, if a flooding event were to occur in the area, currently only the major freeways provide passage over the San Diego River. Once operational, the proposed bridge would provide a new safe passage that crosses the river, if such an event were to transpire. Therefore, the proposed bridge's new roadway and new direct north–south connection from Camino Del Rio North to the north side of the San Diego River would provide improved overall emergency access compared to existing conditions.

Furthermore, the design and construction of the approach roadways and bridge would be required to comply with applicable City, County, and California Department of Transportation design standards, as well as American Association of State Highway and Transportation Official Guidelines. The proposed project plans would also require review and approval from the San Diego Fire-Rescue Department Fire Prevention Bureau and Unified San Diego County Emergency Services Organization.

Likewise, plans and policies pertaining to emergency response and evacuation will be updated accordingly to reflect the location and design of the proposed project features. Compliance with all applicable standards and regulations would ensure that the potential for the proposed project, regardless of the construction method, to impair implementation or physically interfere with an adopted emergency response or evacuation plan would be **less than significant**.

Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

Pre-Cast and Cast-in-Place Construction Methods

Official San Diego Fire-Rescue Department mapping of VHFHSZs throughout the City indicates that the entirety of the project site would be located in a VHFHSZ (see Figure 3.16-1, Fire Hazard Severity Zones, in Section 3.16). A full discussion of the project's relationship to wildland fire hazards is outlined in Section 3.16. As stated therein, impacts for either construction method would be **potentially significant** prior to mitigation.

3.8.5 Cumulative Impacts

Would the project result in a cumulative impact to hazards and hazardous materials?

For cumulative analysis, the hazardous materials geographic scope is generally restricted to the area immediately surrounding the project site, as the potential for risk is limited to the area immediately surrounding an affected hazardous material site or risk generator. However, other topics associated with human health and safety such as transportation of hazardous materials, wildfire, or airport safety can expand through the surrounding region.

As described above, there are few hazardous material and public health and safety issues that are relevant and applicable to the project site and proposed project. Many potential impacts related to hazardous materials and public health and safety risks would be minimized due to compliance with federal, state, and local regulatory requirements. These legal requirements and regulations are detailed in Section 3.8.2.

Cumulative projects would also be subject to federal, state, and local regulations related to hazardous materials and other public health and safety issues. In a manner similar to the proposed project, adherence to these regulatory requirements would reduce incremental impacts associated with public exposure to health and safety hazards in each of the affected project areas. For example, the Friars Road Residential Mixed Use Project and the Discovery Center Project, listed in Table 3.0-1, Cumulative Projects, both identified no impacts or less-than-significant impacts to health and safety with adherence to regulatory requirements. Additionally, most hazardous materials– and safety-related risks are localized, generally affecting a specific site and immediate surrounding area, thus minimizing the potential for an impact to combine with another project to create a cumulative scenario.

As the proposed project would be in a VHFHSZ, the project would be subject to construction requirements for buildings within these zones (refer to Section 3.16 for additional information). Cumulative projects would be subject to these same requirements, on both a state and local level. As adherence to these requirements makes the proposed project impacts less than significant, these same requirements would reduce the risk on a cumulative level, thereby reducing cumulative impacts.

Because cumulative projects would be fully regulated, thus reducing potential for public safety risks, cumulative impacts associated with exposure to hazards and hazardous materials would be less than significant. Through mitigation and compliance with regulatory requirements, the construction or operation of the proposed project itself would not create significant human or environmental health or safety risks that could combine with other project impacts to create a significant and cumulatively considerable impact. For these reasons, the proposed project would not result in cumulatively considerable impacts related to hazards and hazardous materials. Impacts would be **less than significant**.

3.8.6 Summary of Impacts Prior to Mitigation

Impacts relating to hazards and hazardous materials would be **potentially significant** prior to mitigation.

3.8.7 Mitigation Measures

Implementation of MM-WF-1 (Pre-Construction Requirements) as detailed in Section 3.16, Wildfire, would reduce potential wildfire hazards to less than significant.

3.8.8 Level of Significance After Mitigation

Impacts relating to hazards and hazardous materials would be **less than significant with mitigation** after implementation of MM-WF-1.

3.9 Hydrology and Water Quality

This section describes the existing hydrology and water quality conditions of the project site and vicinity, identifies associated regulatory requirements, and evaluates potential impacts related to implementation of the proposed Fenton Parkway Bridge Project (project). A Hydraulic Report was prepared for the project by Chang & Associates in October 2023 and is included herein as Appendix F1. A Preliminary Drainage Report and a Storm Water Quality Management Plan (SWQMP) were also prepared for the project by Project Design Consultants in October 2023 and are included herein as Appendices F2 and F3, respectively.

A Notice of Preparation (NOP) was circulated from May 22, 2023, to June 20, 2023. A total of 16 letters were received during this comment period. Comments received on the NOP included requests for analysis of stormwater flows, flooding, and hydrology/water quality impacts. Please see Appendix A, NOP and Scoping Comments, for a complete compilation of comments received on the NOP.

3.9.1 Existing Conditions

Environmental Setting

The project site is located in the northeast portion of the Mission Valley community, in the central portion of the City of San Diego (City) metropolitan area (see Figure 2-1, Project Vicinity and Location, in Chapter 2, Project Description). The project site lies within the no credit area of the City's Stadium Wetland Mitigation Site, which is a 57-acre advanced permittee-responsible compensatory mitigation site that generates wetland mitigation credits for use in connection with infrastructure projects for the City.

The project site is situated south of Fenton Parkway and the Fenton Marketplace and north of Camino Del Rio North and would connect these two roadways. The San Diego River bisects the project site from east to west. Surrounding uses include commercial and residential uses to the north, the San Diego State University (SDSU) Mission Valley development (including Snapdragon Stadium) to the northeast, office and healthcare uses to the south, and open space, including the San Diego River, to the east and west. The bridge would be located within the City's Multi-Habitat Planning Area.

Climate

The climate of San Diego County is characterized by warm, dry summers and mild, wet winters. The average rainfall is about 10 to 13 inches per year, most of which falls between November and March. The average mean temperature for the area is approximately 65 °F in the coastal zone and 57 °F in the surrounding foothills (San Diego RWQCB 2021). The proposed project is located in a Mediterranean climate region with seasonally influenced precipitation. Seasons consist of hot, dry summers and cooler, wetter winters, although San Diego is more arid than most areas with a similar climate classification. Global climate change is expected to cause a future warming trend in Southern California even under moderate emissions scenarios; however, there is no clear trend in annual precipitation. Current climate projections suggest an increase in extreme events in the San Diego region in the future, with 16% fewer rainy days and 8% more rainfall during the biggest rainstorms (San Diego Foundation 2014; SDSU 2020).

Watershed Hydrology

The U.S. Geological Survey Watershed Boundary Dataset delineates watersheds according to hydrologic units, which are nested within one another according to the scale of interest. The U.S. Geological Survey identifies hydrologic units by name and by hydrologic unit code (HUC). For example, at a statewide scale, hydrologic units consist of large regions and sub-regions draining to a common outlet. At a statewide scale, the proposed project is within the 11,100-square-mile Southern California Coastal subregion (HUC 1807), which identifies areas that eventually drain to the Pacific Ocean versus those that drain to the interior deserts of California. At the highest level of detail for the Watershed Boundary Dataset, the proposed project would be located within the San Diego River Watershed Management Area (WMA), which encompasses approximately 434 square miles. The San Diego River headwaters are located 50 miles east of the project site in the Cuyamaca Mountains. Streams within the watershed include 55 miles of the San Diego River, Boulder Creek, Cedar Creek, Conejos Creek, Chocolate Creek, Los Coches Creek, San Vicente Creek, Foster Creek, and several unnamed tributaries. The San Diego River flows into the Pacific Ocean 5 miles west of the project site in the Ocean Beach community of the City. The San Diego River watershed contains the Lower San Diego, San Vicente, El Capitan, and Boulder Creek Hydrologic Areas. The project site is located in the Mission San Diego Hydrologic Subarea, in the lower San Diego Hydrologic Area, and within the San Diego River Hydrologic Unit. The project site's receiving waters consist of the San Diego River (SDSU 2020).

Topography and Drainage

The topography of the project site includes the San Diego River channel and two adjacent relatively flat to gently sloping bluff areas on the north and south sides of the river. The river channel bottom is approximately 400 feet wide, with a steep, approximately 20-foot-high river bank on the south side of the river and a less steep, approximately 10-foot-high river bank on the north side, which transitions into a gentle, approximately 10-foot-high slope up to River Park Road. A south-trending incised drainage, which empties into the river, is located on the north side of the river. This drainage includes a 96-inch reinforced concrete pipe (RCP) storm drain. In addition, a 54-inch storm drain is located on the south side of the river at Camino Del Rio North. Both storm drains discharge directly into the San Diego River (Appendix F1).

Flood Hazards

The San Diego River flows in a westerly direction through the project site. The Federal Emergency Management Agency's Flood Insurance Rate Map, Panel Nos. 06073C1617G, 06073C1619G, 06073C1636H, and 06073C1638H, dated May 16, 2012, delineate a 0.2% and 1% annual-chance Zone AE floodplain, as well as a regulatory floodway along the San Diego River near the site (Figure 2-3, Project Site Plan, and Figure 3.9-1, Existing Flood Zones). The San Diego River regulatory floodway is generally along the natural river channel corridor. However, the proposed bridge site encroaches into the regulatory floodway since it crosses the San Diego River. A Conditional Letter of Map Revision (CLOMR) was prepared and processed through the City and Federal Emergency Management Agency for the proposed project (Case No. 22-09-0389R). The proposed project adds the bridge improvements to the prior CLOMR phase (Appendix F1).

Water Quality

The Water Quality Control Plan for the San Diego Basin (Basin Plan) (San Diego RWQCB 2021) lists beneficial uses of major water bodies within the region. San Diego River is an inland surface water body with designated beneficial uses in the Basin Plan. Existing beneficial uses are summarized in Table 3.9-1 and descriptions of the beneficial use categories are as follows:

- **AGR:** Agricultural supply waters used for farming, horticulture, or ranching.
- **COLD:** Freshwater habitat that supports cold water ecosystems including the preservation or enhancement of aquatic habitats, vegetation, fish or wildlife, and invertebrates.
- **IND:** Industrial activities that do not depend primarily on water quality.
- **MUN:** Community, military, or individual water supply systems including, but not limited to, drinking water supply.
- **PROC:** Industrial process supplies that includes the use of water for industrial activities that depend primarily on water quality.
- **RARE:** Waters that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened, or endangered.
- **REC1:** Water contact recreation involving body contact with water and ingestion is reasonably possible.
- **REC2:** Non-contact water recreation for activities in proximity to water, but not involving body contact.
- **WARM:** Warm freshwater habitat to support water ecosystems.
- **WILD:** Wildlife habitat water that support terrestrial or wetland ecosystems.

Table 3.9-1. Basin Plan Beneficial Uses

Water Body	Beneficial Uses									
	MUN	AGR	IND	PROC	REC1	REC2	WARM	COLD	WILD	RARE
San Diego River	X	X	X	X	X	X	X	X	X	X

Source: Table 2-2 of San Diego RWQCB 2021.

Water quality data were collected along the lower San Diego River from 2004 through 2018 for several pollutants of concern including conventional parameters, nutrients, metals, pathogen indicators, and municipal supply constituents. The selected general constituents examined include dissolved oxygen (DO), turbidity, total dissolved solids (TDS), total suspended solids (TSS), and oil and grease. DO is a measure of the amount of gaseous oxygen dissolved in the water. Turbidity is a measure of suspended matter that interferes with the passage of light through the water or in which visual depth is restricted. TDS measures the dissolved cations and anions in water, primarily inorganic salts (calcium, magnesium, potassium, sodium, chlorides, and sulfates). High TDS levels can impair agricultural, municipal supply, and groundwater recharge beneficial uses. TSS measures the particulate matter suspended in water. Oil and grease is a measure of fats, oils, waxes, and other related constituents in water (Geosyntec 2019; SDSU 2020).

The data collected along the lower San Diego River in the vicinity of the project site indicate that the lower San Diego River may not be meeting water quality standards for DO over the study period (2004–2018) during the dry season. The Basin Plan objective states that the annual mean DO concentration should not be less than 7 milligrams per liter more than 10% over the time. All of the DO measurements collected were less than 7 milligrams per liter; however, only six measurements were collected over the 11-year span. Water quality data for turbidity indicate that the Basin Plan standard of 20 Nephelometric Turbidity Units is being met along the lower San Diego River for the

wet season and the dry season. Average turbidity measures during the wet season and the dry season are 4.63 and 3.72 Nephelometric Turbidity Units, respectively. The Basin Plan does not identify a numeric standard for TSS, and the available TSS data do not indicate that TSS is a cause of "nuisance or adverse effects to beneficial waters." Oil and grease data were collected on four occasions between 2013 and 2014 at the San Diego River TWAS station upstream of the project site. All oil and grease results were below the reporting limit, indicating that concentrations are not at levels that would "cause nuisance or which otherwise adversely affect beneficial uses" (Geosyntec 2019; SDSU 2020).

Groundwater

All major watersheds in the San Diego region contain groundwater basins, which are defined as a hydrogeologic unit containing one large aquifer, as well as several connected and interrelated aquifers. The San Diego River WMA contains three groundwater basins: Mission Valley, San Diego River Valley, and El Cajon Valley. The project site overlies the Mission Valley Groundwater Basin. Groundwater resources are limited in the downstream portions of the San Diego River WMA because of high concentrations of TDS and groundwater contamination in the Mission Valley Groundwater Basin (City of San Diego 2015). The Mission Valley Groundwater Basin is described in Table 3.9-2.

Table 3.9-2. Mission Valley Groundwater Aquifer

Aquifer	Description	Thickness
Shallow Alluvium	Quaternary age medium to coarse-grained sand and gravel	Approximately 80–100 feet
San Diego Formation	Thick accumulation of older, semi-consolidated alluvial sediments	Generally less than 100 feet

Source: DWR 2004.

The Mission Valley Groundwater Basin is a narrow alluvial aquifer extending horizontally along the San Diego River from the bottom of Mission Gorge downstream to the river's tidal estuary beginning approximately at Interstate 5 (SDSU 2020). Currently no significant withdrawals are conducted due to a previous petroleum plume from a Kinder Morgan Energy Partners site (City of San Diego 2015). In June 2016, the City and Kinder Morgan Energy Partners signed a settlement agreement specifying conditions and arrangements for future development of the adjacent stadium area and Mission Valley groundwater (Geosyntec 2019; SDSU 2020). The Basin Plan designates existing or potential beneficial uses (as shown in Table 3.9-3) for the Mission Valley Groundwater Basin beneath the project site.

Table 3.9-3. Existing Beneficial Uses of Project Groundwater Basin

Groundwater	Hydrologic Unit Basin Number	Beneficial Uses					
		MUN	AGR	IND	PROC	FRESH	GWR
Lower San Diego Hydrologic Area	7.10						
Mission San Diego Hydrologic Subarea[1]	7.11	○	•	•	•	X	X

Notes:
○ Potential Beneficial Use
• Existing Beneficial Use
X No Beneficial Use
[1] These beneficial uses do not apply west of the eastern boundary of the Interstate 5 right-of-way, and the area is excepted from sources of drinking water policy. The beneficial uses for the remainder of the hydrologic area are as shown.

Based on borings drilled at the adjacent River Park area, groundwater is present in the project vicinity at depths ranging from about 7 to 9 feet below ground surface (Geosyntec 2019; SDSU 2020).

3.9.2 Relevant Plans, Policies, and Ordinances

Federal

Clean Water Act

The Clean Water Act (CWA), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality (33 USC 1251 et seq.). The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The CWA establishes basic guidelines for regulating discharges of both point and non-point sources of pollutants into the waters of the United States. The CWA requires that states adopt water quality standards to protect public health, enhance the quality of water resources, and ensure implementation of the CWA. Relevant sections of the CWA are as follows:

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines. Under Section 303(d) of the CWA, the State of California is required to develop a list of impaired water bodies that do not meet water quality standards and objectives. California is required to establish total maximum daily loads (TMDLs) for each pollutant/stressor. A TMDL defines how much of a specific pollutant/stressor a given water body can tolerate and still meet relevant water quality standards. Once a water body is placed on the Section 303(d) List of Water Quality Limited Segments, it remains on the list until a TMDL is adopted and the water quality standards are attained or there are sufficient data to demonstrate that water quality standards have been met and delisting from the Section 303(d) list should take place.
- Section 401 (Water Quality Certification) requires an applicant for any federal permit that proposes an activity that may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the CWA. This process is known as the Water Quality Certification/Waste Discharge Requirements process.
- Section 402 (National Pollutant Discharge Elimination System) establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the United States. This permit program is administered by the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs), which have several programs that implement individual and general permits related to construction activities, stormwater runoff quality, and various kinds of non-stormwater discharges.
- Section 404 (Discharge of Dredged or Fill Material into Waters of the United States) establishes a permit program for the discharge of dredged or fill material into waters of the United States. This permit program is jointly administered by the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency (EPA).

Numerous agencies have responsibilities for administration and enforcement of the CWA. At the federal level this includes EPA, the U.S. Army Corps of Engineers, the Bureau of Reclamation, and the major federal land management agencies, such as the U.S. Forest Service and the Bureau of Land Management. At the state level, with the exception of tribal lands, the California Environmental Protection Agency and its sub-agencies, including the SWRCB, have been delegated primary responsibility for administering and enforcing the certain provisions of the CWA in California. At the local level, the San Diego RWQCB, municipalities, and special districts have implementation and enforcement responsibilities under the CWA.

CWA Section 303(d) - TMDLs

When designated beneficial uses of a particular receiving water body are being compromised by water quality, Section 303(d) of the CWA requires identifying and listing that water body as "impaired." Once a water body has been deemed impaired, a TMDL must be developed for the impairing pollutant(s). A TMDL is an estimate of the total load of pollutants from point, non-point, and natural sources that a water body may receive without exceeding applicable water quality standards (with a "factor of safety" included). Once established, the TMDL allocates the loads among current and future pollutant sources to the water body.

The proposed project's runoff will discharge into the San Diego River. The San Diego River (Lower) is currently listed on the 2014/2016 CWA Section 303(d) list for indicator bacteria, benthic community effects, cadmium, DO, TDS, nitrogen, phosphorus, and toxicity. The San Diego River (Lower) is designated a Category 5 reach, which means there are water segments where standards are not met and a TMDL is required, but not yet completed, for at least one of the pollutants being listed for this segment. Table 3.9-4 lists the water quality impairments for the San Diego River (Lower) from the 2014/2016 CWA Section 303(d) list.

Table 3.9-4. 2014/2016 CWA Section 303(d) Listings for the San Diego River (Lower)

Pollutant	TMDL Completion	Potential Sources
Indicator Bacteria	2011	Unknown sources
Benthic Community Effects	2025	Hydromodification Illicit connections/illegal hook-ups/ dry weather flows Unknown non-point source Unknown point source Urban runoff/storm sewers
Cadmium	2029	Unknown sources
Dissolved Oxygen	2019	Unknown sources
Total Dissolved Solids	2019	Unknown sources
Total Nitrogen as N	2029	Unknown sources
Total Phosphorus	2019	Unknown sources
Toxicity	2025	Unknown sources

Sources: Geosyntec 2019; SDSU 2020.
Note: TMDL = total maximum daily load.

Federal Antidegradation Policy

The federal Antidegradation Policy (40 CFR 131.12) is designed to protect water quality and water resources. The policy requires states to develop statewide antidegradation policies and identify methods for implementing those policies. State antidegradation policies and implementation measures must include the following provisions: (1) existing instream uses and the water quality necessary to protect those uses shall be maintained and protected; (2) where existing water quality is better than necessary to support fishing and swimming conditions, that quality shall be maintained and protected unless the state finds that allowing lower water quality is necessary for important local economic or social development; and (3) where high-quality waters constitute an outstanding national resource, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected. State permitting actions must be consistent with the federal Antidegradation Policy.

California Toxics Rule

The California Toxics Rule (CTR) is a federal regulation issued by EPA providing water quality criteria for potentially toxic constituents in receiving waters with human health or aquatic life designated uses in the State of California (EPA 2000). EPA adopted the rule in 2000 to create legally applicable water quality criteria for priority toxic pollutants for inland surface waters, enclosed bays, and estuaries to protect human health and the environment for all purposes and programs under the CWA. The California Toxics Rule aquatic life criterion were derived using a CWA Section 304(a) method that produces an estimate of the highest concentration of substances in water that do not present a significant risk to the aquatic organisms in the water and their uses (EPA 2000). The California Toxics Rule water quality criteria provide a reasonable and adequate amount of protection with only a small possibility of substantial overprotection or under protection.

State

Porter-Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (codified in the California Water Code, Section 13000 et seq.) is the primary water quality control law for California. Whereas the CWA applies to all waters of the United States, the Porter–Cologne Act applies to waters of the state,[1] which includes isolated wetlands and groundwater in addition to federal waters. The Porter-Cologne Act grants the SWRCB and the nine RWQCBs power to protect water quality and is the primary vehicle for implementation of California's responsibilities under the federal CWA. The Porter-Cologne Act also grants the SWRCB and the nine RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges of waste to surface and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. Further, the Porter–Cologne Act establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

The act requires a Report of Waste Discharge for any discharge of waste (liquid, solid, or otherwise) to land or surface waters that may impair a beneficial use of surface or groundwater of the state. California Water Code Section 13260(a) requires that any person discharging waste or proposing to discharge waste, other than to a community sewer system, that could affect the quality of waters of the state file a Report of Waste Discharge with the applicable RWQCB. For discharges directly to surface water (waters of the United States), an NPDES permit is required, which is issued under both state and federal law; for other types of discharges, such as waste discharges to land (e.g., spoils disposal and storage), erosion from soil disturbance, or discharges to waters of the state (such as groundwater and isolated wetlands), Waste Discharge Requirements are required and are issued exclusively under state law. Waste Discharge Requirements typically require many of the same best management practices (BMPs) and pollution control technologies as required by NPDES-derived permits.

California Antidegradation Policy

The California Antidegradation Policy, otherwise known as the Statement of Policy with Respect to Maintaining High Quality Water in California, was adopted by the SWRCB (State Board Resolution No. 68-16) in 1968. Unlike the federal Antidegradation Policy, the California Anti-Degradation Policy applies to all waters of the state, not just surface waters. The policy requires that, with limited exceptions, whenever the existing quality of a water body is better than the quality established in individual basin plans (see description below), such high quality must be

[1] "Waters of the state" are defined in the Porter–Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code, Section 13050[e]).

maintained, and discharges to that water body must not unreasonably affect any present or anticipated beneficial use of the water resource.

Water Quality Control Plan for the San Diego Basin

The California legislature has assigned the primary responsibility to administer and enforce statutes for the protection and enhancement of water quality, including the Porter–Cologne Act and portions of the CWA, to the SWRCB and its nine RWQCBs. The San Diego RWQCB implements the Basin Plan, which designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan (California Water Code, Sections 13240–13247). The Porter–Cologne Act also provides the RWQCBs with authority to include within their basin plan water discharge prohibitions applicable to particular conditions, areas, or types of waste. The Basin Plan (San Diego RWQCB 2021) is continually updated to include amendments related to implementation of TMDLs, revisions of programs and policies within the San Diego RWQCB region, and changes to beneficial use designations and associated water quality objectives. The Basin Plan is the guiding document that establishes water quality standards for the region.

The basin plan for each region provides quantitative and narrative criteria for a range of water quality constituents applicable to certain receiving water bodies and groundwater basins within the region. Specific criteria are provided for the larger, designated water bodies within the region, as well as general criteria or guidelines for ocean waters, bays, and estuaries; inland surface waters; and groundwaters. In general, the narrative criteria require that degradation of water quality not occur due to increases in pollutant loads that will adversely impact the designated beneficial uses of a water body.

Construction General Permit

For stormwater discharges associated with construction activity in the State of California, the SWRCB has adopted the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit [CGP]) to avoid and minimize water quality impacts attributable to such activities. The CGP applies to all projects in which construction activity disturbs 1 acre or more of soil. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling and excavation. The CGP requires the development and implementation of a stormwater pollution prevention plan (SWPPP), which would specify water quality BMPs designed to reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from the construction site. Routine inspection of all BMPs is required under the provisions of the CGP, and the SWPPP must be prepared and implemented by qualified individuals as defined by the SWRCB.

To receive coverage under the CGP, a project applicant must submit a Notice of Intent and permit registration documents to the SWRCB. Permit registration documents include a construction site risk assessment to determine appropriate coverage level; detailed site maps showing disturbance area, drainage area, and BMP types/locations; the SWPPP; and, where applicable, post-construction water balance calculations and active treatment systems design documentation.

Phase II Small MS4 Permit

To enable efficient permitting under both the CWA and the Porter–Cologne Act, the SWRCB and the RWQCBs administer permit programs that group similar types of activities with similar threats to water quality. These "general permit" programs include the Phase II Small Municipal Separate Storm Sewer System (MS4) Permit,[2] the CGP, and other general permits for low-threat discharges. The City and California Department of Transportation are subject to Phase I MS4 Permits (Order No. R9-2013-0001, as amended, and Water Quality Order No. 2012-0011-DWQ, as amended, respectively).

The Small MS4 Permit consists of several program elements: Program Management, Public Involvement/ Participation, Illicit Discharge Detection and Elimination, Construction Site Storm Water Runoff Control, Pollution Prevention/Good Housekeeping for Permittee Operations, Post Construction Storm Water Management for New Development and Re-development, Water Quality Monitoring Requirements, Program Effectiveness Assessment, and Annual Reporting. Besides requiring implementation of construction site BMPs and performance criteria and design guidelines for development within the Small MS4's service area, the Small MS4 Permit also requires operators to map their outfalls, properly maintain the storm drain system, educate the public on pollution prevention, and monitor and report on the quality of MS4 discharges to receiving waters so that the effectiveness of the program can be evaluated. Collectively, the program elements are designed to ensure discharges from the storm drain system do not contain pollutant loads at levels that violate water quality standards and Basin Plan objectives and policies (such as a TMDL for a CWA Section 303[d] impaired water body). Implementation of the program elements are the responsibility of the Small MS4 operator, in this case, the City.

Relevant to the proposed project is that the Small MS4 Permit requires Regulated Projects[3] to implement post-construction measures in the form of site design, source control, stormwater treatment measures, and baseline hydromodification management measures to reduce the discharge of pollutants in stormwater to the maximum extent practicable. Examples include the following:

- **Source Control Measures:** Source control measures seek to avoid introduction of water quality pollution/degradation. Source control strategies include covering refuse/trash areas, properly managing outdoor storage of equipment/materials, minimizing use of pesticides and fertilizers in landscaping, using sumps or special area drains to send non-stormwater discharges to the sewer, and ensuring regular grounds maintenance.
- **Site Design Measures:** Site design measures require early assessment and evaluation of how site conditions, such as soils, vegetation, and flow paths, will influence the placement of buildings and paved surfaces. The evaluation is used to meet the goals of capturing and treating runoff and maximizing opportunities to mimic natural hydrology. Options for site design measures include preserving trees, buffering natural water features, disconnecting impervious surfaces, and using green roofs or porous pavement.
- **Treatment Control Measures:** Treatment control measures retain, treat, and/or infiltrate the site runoff produced under normal circumstances, controlling both the quality and quantity of stormwater released to the stormwater conveyance system and natural receiving waters. In most situations, this means implementing structural BMPs (e.g., infiltration, bioretention, and/or rainfall harvest and re-use) to address the volume and

[2] A Small MS4 is defined as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, or storm drains) that serves a population of less than 100,000 persons.

[3] Regulated Projects are defined in Section E.12.c of Water Quality Order 2013-0001-DWQ and include all projects that create and/or replace 5,000 square feet or more of impervious surface, not including detached single-family home projects that are not part of a larger plan of development, interior remodels, routine maintenance or repair within the existing footprint, or linear underground/overhead projects.

rate of runoff produced by the 85th percentile storm[4] (i.e., design capture volume). The Small MS4 Permit requires Regulated Projects to prioritize stormwater capture (e.g., infiltration and/or harvest and re-use) unless site conditions (e.g., low-permeability soils) make it infeasible.

- Hydromodification Measures: Hydromodification measures are required for projects that create or replace 1 or more acres of impervious surfacing so that post-project runoff shall not exceed the estimated pre-project flow rate for the 2-year, 24-hour storm. If the project creates or replaces less than 1 acre of impervious surfaces and demonstrates that post-project flows from the site are less than pre-project flows, then no hydromodification measures from Section E.12.e.(ii)(f) from the Small MS4 Permit are required.
- Operation and Maintenance Requirements: The Small MS4 Permit requires that maintenance agreements stay in place with each property to ensure permanent treatment control measures developed on site are properly maintained and/or repaired in accordance with the stormwater quality control plan.

The aforementioned site design, treatment control, and hydromodification measures are often collectively referred to as "Low Impact Development" standards. The proposed project meets the criteria as a Regulated Project and, thus, is required to comply with the stormwater management requirements of the Small MS4 Permit.

The Small MS4 Permit is administered by the SWRCB, while other general Waste Discharge Requirements are administered by the San Diego RWQCB. Point source discharges or other activities that threaten water quality that are not covered under a general permit must seek individual NPDES permits and/or Waste Discharge Requirements, depending on the type, location, and destination of the discharge. For these type of discharges, the initial step in the process is to submit a Report of Waste Discharge to the San Diego RWQCB, which then determines the appropriate permitting pathway.

Dewatering General Permit

The San Diego RWQCB issued a General Waste Discharge Requirements for Groundwater Extraction Discharges to Surface Waters within the San Diego Region (Order No. R9-2015-0013, NPDES No. CAG919003) (effective October 1, 2015). The General Order regulates groundwater extraction discharges to surface water including construction dewatering, foundation drains, and groundwater extraction related to groundwater remediation cleanup projects. The General Order states for groundwater extraction discharges to surface waters, pollutant concentrations in the discharge shall not cause, have a reasonable potential to cause, or contribute to an excursion above any applicable water quality criterion established by EPA pursuant to CWA Section 303 or adopted by the SWRCB or RWQCBs. In no case shall waste be discharged to areas designated as being of special biological significance. Pollutant concentrations in the discharge must comply with the specifications in the General Order. Effluent limitations for groundwater extraction waste discharges vary based on the receiving water type: the four categories are freshwater inland surface waters, saltwater inland surface waters, bays and estuaries including San Diego Bay, and the surf zone of the Pacific Ocean. As part of obtaining the Notice of Intent, dischargers must include an initial sampling and monitoring report.

[4] The 85th percentile storm represents a value of rainfall, in inches, such that 85% of the observed 24-hour rainfall totals within the historical record will be less than that value.

Local

City of San Diego Storm Water Runoff Control and Drainage Regulations

The City Storm Water Runoff Control and Drainage Regulations are enforced through issuance of permits for projects under its jurisdictional control. The City's Storm Water Standards Manual is intended to help a project applicant, in coordination with City stormwater program staff, develop a stormwater quality management plan for a development project (public or private) that complies with local and MS4 Permit requirements.

San Diego River Watershed Management Area Water Quality Improvement Plan

The MS4 Permit requires development of water quality improvement plans that guide the co-permittees' jurisdictional runoff management programs toward achieving improved water quality in MS4 discharges and receiving waters. A San Diego River Water Quality Improvement Plan was developed by the Cities of El Cajon, La Mesa, San Diego, and Santee; the County of San Diego; and the California Department of Transportation (Project Clean Water 2023). The San Diego River Water Quality Improvement Plan assesses the impacts of storm drain discharges on receiving water quality and identifies a list of priority water quality conditions for the watershed. The highest priority water quality condition identified for the San Diego River watershed is bacteria, in both dry and wet weather conditions. Other priority water quality conditions are nitrogen and phosphorus, TDS, eutrophic conditions, and an index of biological integrity in dry weather conditions. Implementation of the Water Quality Improvement Plan furthers the CWA's objectives to protect, preserve, enhance, and restore the water quality and designated beneficial uses of waters of the state. The requirement sets forth a collaborative and adaptive planning and management process that identifies the highest priority water quality conditions within a WMA and implements strategies through the jurisdictional runoff management programs of the respective jurisdictions.

3.9.3 Significance Criteria

The significance criteria used to evaluate the project impacts to hydrology and water quality are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to hydrology and water quality would occur if the project would:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
2. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    a. result in substantial erosion or siltation on or off site;
    b. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;
    c. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
    d. impede or redirect flood flows.
4. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

5. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

3.9.4 Impacts Analysis

Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Construction

Pre-Cast and Cast-in-Place Construction Methods

The proposed bridge, regardless of the construction method, would consist of up to four spans. The spans would be supported on concrete seat-type abutments in the river embankments at each end and two to three piers within the river channel, each consisting of two to three approximately 20-foot-tall, 6-foot-diameter circular concrete columns. Each abutment would be supported on eight 4-foot-diameter cast-in-drilled-hole concrete piles and each of the four columns would be supported on a single 8-foot-diameter cast-in-drilled-hole concrete pile. Each of the abutments would be protected with energy dissipating riprap that would be buried to allow for plant growth over the riprap.

The Fenton Parkway and River Park Road intersection, which is currently under construction, would be expanded to a three-legged configuration with the new bridge approach forming the south leg of the intersection. The Mission City Parkway and Camino Del Rio North intersection would also be expanded from a three-way signal-controlled intersection under existing conditions to a four-way signal-controlled intersection, with the Fenton Parkway extension on the new bridge forming the new north leg. Existing 96-inch and 54-inch RCP storm drains would require relocation and/or extension during project construction to accommodate storm drain outfalls into the river without impacting the bridge's structural integrity. In addition, project construction laydown and staging areas would be located both north and south of the proposed bridge.

In the absence of proper soil management, grading and construction for each of these project features could result in wind and water erosion and associated sedimentation of the San Diego River. Construction-related activities that primarily result in sediment releases are related to exposing previously stabilized soils to potential mobilization by rainfall/runoff and wind. Erosion and sedimentation affects water quality and interferes with photosynthesis; oxygen exchange; and the respiration, growth, and reproduction of aquatic species. Additionally, other pollutants, such as nutrients, trace metals, and hydrocarbons, can attach to sediment and be transported downstream, which could contribute to degradation of water quality.

Non-sediment-related pollutants that are also of concern during construction relate to construction materials and non-stormwater flows and include construction materials (e.g., paint); chemicals, liquid products, and petroleum products used in bridge and roadway construction or the maintenance of heavy equipment; and concrete-related pollutants.

Bridge construction impacts for either of the construction methods would be minimized through compliance with the Small MS4 Permit and the SWRCB's CGP, which is the NPDES General Permit for Storm Water Associated with Construction Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002). Because the proposed project is greater than 1 acre in size, the applicant would be required to submit a Notice of Intent to the SWRCB in order to obtain approval to complete construction activities under the CGP. This permit requires the discharger to perform a risk assessment for the proposed development (with differing requirements based upon the

determined level) and to prepare and implement a SWPPP. A Construction Site Monitoring Program that identifies monitoring and sampling requirements during construction is a required component of the SWPPP. The SWPPP is also required to include construction-phase BMPs to be implemented. Typical BMPs that would be implemented during grading and construction of the proposed project that would minimize degradation of surface water quality include the following.

Erosion Control

- Physical soil stabilization through hydraulic mulch, soil binders, straw mulch, bonded and stabilized fiber matrices, compost blankets, and erosion control blankets
- Contain and securely protect stockpiled materials from wind and rain at all times, unless actively being used
- Soil roughening of graded areas to slow runoff, enhance infiltration, and reduce erosion
- Vegetative stabilization through temporary seeding and mulching to establish interim vegetation
- Wind erosion (dust) control through the application of water or other dust palliatives as necessary to prevent and alleviate dust nuisance

Sediment Control

- Perimeter protection to prevent sediment discharges (e.g., silt fences, fiber rolls, gravel bag berms, sand bag barriers, and compost socks)
- Storm drain inlet protection
- Sediment capture and drainage control through sediment traps and sediment basins
- Velocity reduction through check dams, sediment basins, and outlet protection/velocity dissipation devices
- Reduction in off-site sediment tracking through stabilized construction entrance/exit, construction road stabilization, and/or entrance/exit tire wash
- Slope interruption at prescribed intervals (e.g., fiber rolls, gravel bag berms, sand bag berms, compost socks, biofilter bags)

Waste and Materials Management

- Management of the following types of materials, products, and wastes: solid, liquid, sanitary, concrete, hazardous, and equipment-related wastes. Management measures include covered storage and secondary containment for material storage areas, secondary containment for portable toilets, covered dumpsters, dedicated and lined concrete washout/waste areas, proper application of chemicals, and proper disposal of all wastes
- A spill response and prevention program will be incorporated as part of the SWPPP and spill response materials will be available and conspicuously located at all times on site

Non-Stormwater Management

- BMPs or good housekeeping practices to reduce or limit pollutants at their source before they are exposed to stormwater, including such measures as water conservation practices, vehicle and equipment cleaning and fueling practices, illicit connection/discharge elimination, and concrete curing and finishing. All such measures will be recorded and maintained as part of the project SWPPP

Training and Education

- Inclusion of CGP-defined Qualified SWPPP Developers and Qualified SWPPP Practitioners. These staff shall have required certifications and shall attend SWRCB sponsored training
- Training of individuals responsible for SWPPP implementation and permit compliance, including contractors and subcontractors
- Signage (bilingual, if appropriate) to address SWPPP-related issues (such as site cleanup policies, BMP protection, and washout locations)

Inspections, Maintenance, Monitoring, and Sampling

- Performing routine site inspections and inspections before, during (for storm events > 0.5 inches), and after storm events
- Where applicable, preparing and implementing Rain Event Action Plans prior to any storm event with 50% probability of producing 0.5 inches of rainfall, including performing required preparatory procedures and site inspections
- Implementing maintenance and repairs of BMPs as indicated by routine, storm-event, and Rain Event Action Plan inspections
- Implementation of the Construction Site Monitoring Plan for non-visible pollutants if a leak or spill is detected
- Where applicable, sampling of discharge points for turbidity and pH at minimum three times per qualifying storm event and recording and retention of results

In addition, in compliance with the CGP, temporary sediment traps would be constructed for separate work areas/staging areas (i.e., north and south of the river) that would remain in a mass graded condition temporarily.

Further, based on the shallow depth to groundwater beneath the river, dewatering may be necessary if groundwater is encountered during temporary abutment excavations. If groundwater is encountered and displaced, the pumped groundwater cannot be discharged into surface waters unless the City applies for a separate groundwater dewatering permit. Dewatering BMPs, such as dewatering tanks or weir tanks that would temporarily hold the excavated groundwater, may be used during the construction phase. All dewatering would be conducted in compliance with the CGP (Order No. 2009-009-DWQ, as amended by Order 2010-0014-DWQ and 2012-006-DWQ) and the San Diego RWQCB's General Waste Discharge Requirements for Groundwater Extraction Discharges to Surface Waters within the San Diego Region (Order No. R9-2015-0013, NPDES No. CAG919003).

In general, the CGP authorizes other construction-related non-stormwater discharges (such as dewatering) as long as they (a) comply with Section III.C of the CGP, (b) do not cause or contribute to violation of any water quality standards, (c) do not violate any other provisions of the CGP, (d) do not require a non-stormwater permit as issued by some RWQCBs, and (e) are not prohibited by a Basin Plan provision. Through implementation of the requirements outlined in the CGP, pre-cast of cast-in-place construction-related impacts to surface water and groundwater would be minimized and impacts would be **less than significant**.

Operations

Use of the bridge by vehicles during operations would result in incidental spills of oil and grease and incidental emissions of heavy metals from vehicle brakes. During precipitation events, these substances would be mobilized and potentially transported through relocated storm drains into the San Diego River, resulting in adverse water

quality impacts to the river. However, in compliance with the Small MS4 Permit, stormwater runoff on the bridge would be directed to the north side of the bridge and into a proposed biofiltration basin on the west side of the bridge (Figure 2-3). The surface water contaminants would thus be filtered out of the stormwater prior to entering the river. As a result, water quality impacts during operations would **be less than significant.**

Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Pre-Cast and Cast-in-Place Construction Methods

The project site is underlain by the Mission Valley Groundwater Basin, which is a narrow alluvial aquifer extending horizontally along the San Diego River from the bottom of Mission Gorge downstream to the river's tidal estuary beginning approximately at Interstate 5. Currently, no significant withdrawals are conducted due to a petroleum plume from a Kinder Morgan Energy Partners site.

The maximum depth of remedial grading excavation is anticipated to extend to approximately 5 feet above measured groundwater levels. However, given the very high water table, groundwater dewatering may be necessary during completion of temporary abutment excavations. Any construction dewatering would be temporary and would represent negligible quantities with respect to available groundwater beneath the site. In addition, water would be required for soil compaction and dust control during construction. The City purchases 85% to 90% of its water, which is imported from Northern California and the Colorado River (City of San Diego 2023). As a result, groundwater would likely not be used as a water source during construction. Dewatering and construction water demand would not substantially decrease groundwater supplies such that the proposed project would impede sustainable groundwater management of the basin. Impacts would be **less than significant**.

The proposed bridge would be approximately 450 feet long and 58 feet wide, which is equivalent to 26,100 square feet of new impervious surfaces that could potentially interfere with groundwater recharge. However, as illustrated in Figure 2-3, stormwater runoff on the bridge would be directed to the north side of the bridge and into a proposed biofiltration basin on the west side of the bridge, which in turn would drain into the river. Stormwater runoff from the proposed bridge roadway runup areas would similarly drain into the river, which in turn would recharge the underlying groundwater basin. As a result, the increase in impervious surfaces resulting from project construction would not interfere substantially with groundwater recharge. Impacts would be **less than significant**.

Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

Result in substantial erosion or siltation on or off site;

Pre-Cast and Cast-in-Place Construction Methods

As previously discussed, bridge construction (pre-cast or cast-in-place) would result in an increase in impervious surfaces of 26,100 square feet. Additional impervious surfaces would be created for the adjoining roadway runup areas. In the absence of adequate stormwater detention, this increase in impervious surfaces could result in increased stormwater runoff velocities and off-site erosive scour and siltation of the San Diego River. However, in compliance with the Small MS4 Permit, stormwater runoff on the bridge would be directed to the north side of the bridge and into a proposed detention basin (Figure 2-3), which would reduce stormwater runoff velocities. From the detention basin, stormwater runoff would be routed through an RCP storm drain extension, which in turn would flow

over riprap, which would further reduce stormwater velocities and minimize erosive scour at the base of the drainage. As a result, proposed increases in impervious surfaces would not result in substantial erosion or siltation on or off site. Impacts for either construction method would be **less than significant**.

The bridge spans would be supported on concrete seat-type abutments in the river embankments at each end and two to three piers within the river channel, each consisting of two to three approximately 20-foot-tall, 6-foot-diameter circular concrete columns. Each abutment would be supported on eight 4-foot-diameter cast-in-drilled-hole concrete piles and each of the four columns would be supported on a single 8-foot-diameter cast-in-drilled-hole concrete pile. Each of the abutments would be protected with energy dissipating riprap at a 2:1 slope that would be buried to allow for plant growth over the riprap. These abutments would not encroach abruptly into the river channel; therefore, abutment scour was not analyzed. However, local scour analyses were performed to determine the pier scour in association with accelerated flow and the resulting vortices leading to a removal of material near the bridge piers. Based on this analysis, the piers would be designed to accommodate the local scour, including a factor of safety (i.e., excessive scour and associated sedimentation would not occur around the bridge piers) (Appendix G). As a result, the proposed bridge would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site. Impacts for either construction method would be **less than significant**.

> ***Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;***

Pre-Cast and Cast-in-Place Construction Methods

As previously discussed, bridge construction (pre-cast or cast-in-place) would result in an increase in impervious surfaces of 26,100 square feet. Additional impervious surfaces would be created for the adjoining roadway runup areas. In the absence of adequate stormwater detention, this increase in impervious surfaces could result in an increase in the rate or amount of stormwater runoff in a manner that could result in off-site flooding. However, as illustrated in Figure 2-3, stormwater runoff on the bridge would be directed to the north side of the bridge and into a proposed detention basin, which would reduce stormwater runoff velocities. From the detention basin, stormwater runoff would be routed through an RCP storm drain extension, which in turn would flow over riprap, which would further reduce stormwater velocities and minimize the potential for off-site flooding within the riverbed. As a result, proposed increases in impervious surfaces would not result in flooding on or off site. Impacts would be **less than significant**.

> ***Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or***

Pre-Cast and Cast-in-Place Construction Methods

As previously discussed, bridge construction (pre-cast or cast-in-place) would result in an increase in impervious surfaces of 26,100 square feet. Additional impervious surfaces would be created for the adjoining roadway runup areas. In the absence of adequate stormwater detention, this increase in impervious surfaces could result in an increase in the rate or amount of stormwater runoff in a manner that could exceed the capacity of stormwater drainage systems. In addition, vehicle use on the proposed bridge would contribute to increased runoff of pollutants into the San Diego River. However, in compliance with the Small MS4 Permit, stormwater runoff on the bridge would be directed to the north side of the bridge and into a proposed detention/bioretention basin (Figure 2-3), which would reduce stormwater runoff velocities and filter out vehicle related pollutants in stormwater runoff. From the

detention/biofiltration basin, stormwater runoff would be routed through an RCP storm drain extension, which in turn would flow over riprap, which would further reduce stormwater velocities and minimize the potential for flooding. As a result, proposed increases in impervious surfaces would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts under either construction method and during operation would be **less than significant**.

Impede or redirect flood flows?

Pre-Cast and Cast-in-Place Construction Methods

The San Diego River flows in a westerly direction through the project site. Figure 2-3 and Figure 3.9-1 illustrate the 0.2% and 1% annual-chance Zone AE floodplain, as well as a regulatory floodway along the San Diego River near the site. The San Diego River regulatory floodway is generally along the natural river channel corridor. However, the proposed bridge site encroaches into the regulatory floodway since it crosses the San Diego River. A CLOMR was prepared and processed through the City and Federal Emergency Management Agency for the proposed project (Case No. 22-09-0389R). The proposed project adds the bridge improvements to the prior CLOMR phase.

The proposed bridge would consist of up to four spans. The spans would be supported on concrete seat-type abutments in the river embankments at each end and two to three piers within the river channel, each consisting of two to three approximately 20-foot-tall, 6-foot-diameter circular concrete columns. Each abutment would be supported on eight 4-foot-diameter cast-in-drilled-hole concrete piles and each of the four columns would be supported on a single 8-foot-diameter cast-in-drilled-hole concrete pile. Each of the abutments would be protected with energy dissipating riprap that would be buried to allow for plant growth over the riprap.

A proposed hydraulic analysis was completed for the project, reflective of pre- and post-construction conditions. Based on the analysis, base flood elevations would be the same upstream and downstream of the bridge upon completion of bridge construction. The bridge would cause a minor decrease in 100-year base flood elevations immediately upstream of the bridge, but a slight increase in elevations downstream. The elevation decrease would occur because vegetative cover would be reduced by the bridge shadow. The nearly negligible increase in base flood elevation would be contained with the southerly San Diego River channel bank and would not cause adverse off-site impacts. In addition, the bridge would have over 6 feet of freeboard over the base flood elevation and would therefore adequately convey the 100-year flow (Appendix G). As a result, the project would not substantially alter the existing drainage pattern of the site or area in a manner that would impede or redirect flood flows. Impacts under either construction method and during operation would be **less than significant**.

In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Pre-Cast and Cast-in-Place Construction Methods

The project site is approximately 5 miles from Mission Bay and is not located within a tsunami inundation zone (CGS 2023). The bridge would not overlie an enclosed (standing) body of water and would therefore not be susceptible to seiches. As previously discussed, the proposed bridge site encroaches into the regulatory floodway since it crosses the San Diego River. However, bridge operation would not include use, storage, or handling of hazardous substances. As a result, bridge operations would not risk release of pollutants due to project inundation. **No impacts** would occur under either construction method or during operation.

Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Pre-Cast and Cast-in-Place Construction Methods

The proposed project would be required to prepare a SWPPP, in accordance with the CGP, which will include a risk determination and list the appropriate water quality BMPs that will be used to protect stormwater quality throughout the construction phase. Additionally, the SWPPP must contain a visual monitoring program and a chemical monitoring program for "non-visible" pollutants to monitor the effectiveness of the selected BMPs. The SWPPP will be required to demonstrate that the construction activities will not violate discharge prohibitions, effluent limitations, and water quality standards as outlined in the CGP. As such, with implementation of the SWPPP, construction of the proposed project would not conflict with or obstruct the Basin Plan.

The proposed project overlies the Mission Valley Groundwater Basin. Currently no significant withdrawals are conducted due to a petroleum contamination plume in the vicinity of the site. Water required for soil compaction and dust control during construction would be provided by the City, which imports most of its water from Northern California and the Colorado River. As a result, groundwater would likely not be used as a water source during construction and the proposed project would not conflict with or obstruct implementation of the Basin Plan. **No impacts** would occur under either construction method or during operation.

3.9.5 Cumulative Impacts

Would the project result in cumulatively considerable impacts associated with hydrology and water quality?

Development of cumulative projects identified in Table 3.0-1 would result in an increase of impervious surfaces in the surrounding area. More specifically, large development projects nearby would result in conversion of large pervious areas to impervious surfaces. This would potentially result in increased surface runoff, alteration of the regional drainage pattern, and flooding. However, like the proposed project, each individual project applicant would be required to hydrologically engineer the respective project sites to ensure that post-development surface runoff flows can be accommodated by the regional drainage system. As such, with implementation of storm drain facilities for each related project, if applicable, the proposed project would not result in a cumulative impact to hydrology.

The City Significance Determination Thresholds (City of San Diego 2020) note that compliance with applicable City (and related) water quality standards is assured through required permit conditions. Adherence to the City stormwater standards is thus considered adequate to preclude surface water quality impacts, unless substantial evidence supports a fair argument that a significant impact will occur. Accordingly, conformance with the City stormwater standards would preclude potential water quality impacts from occurring. In addition, preparation of a SWPPP, which would be implemented during construction, and preparation of project-specific stormwater quality management plan, which would be implemented during operation, would preclude potentially significant water quality impacts from occurring. All cumulative projects would be required to demonstrate compliance with state and local water quality regulations. If projects are not compliant, mitigation measures would be required in order to ensure water quality impacts do not occur. Therefore, cumulative hydrology and water quality impacts would be **less than significant**.

3.9.6 Summary of Impacts Prior to Mitigation

Impacts related to hydrology and water quality would be **less than significant** and no mitigation measures are required.

3.9.7 Mitigation Measures

No mitigation measures are required.

3.9.8 Level of Significance After Mitigation

Impacts related to hydrology and water quality would be **less than significant** and no mitigation measures are required.

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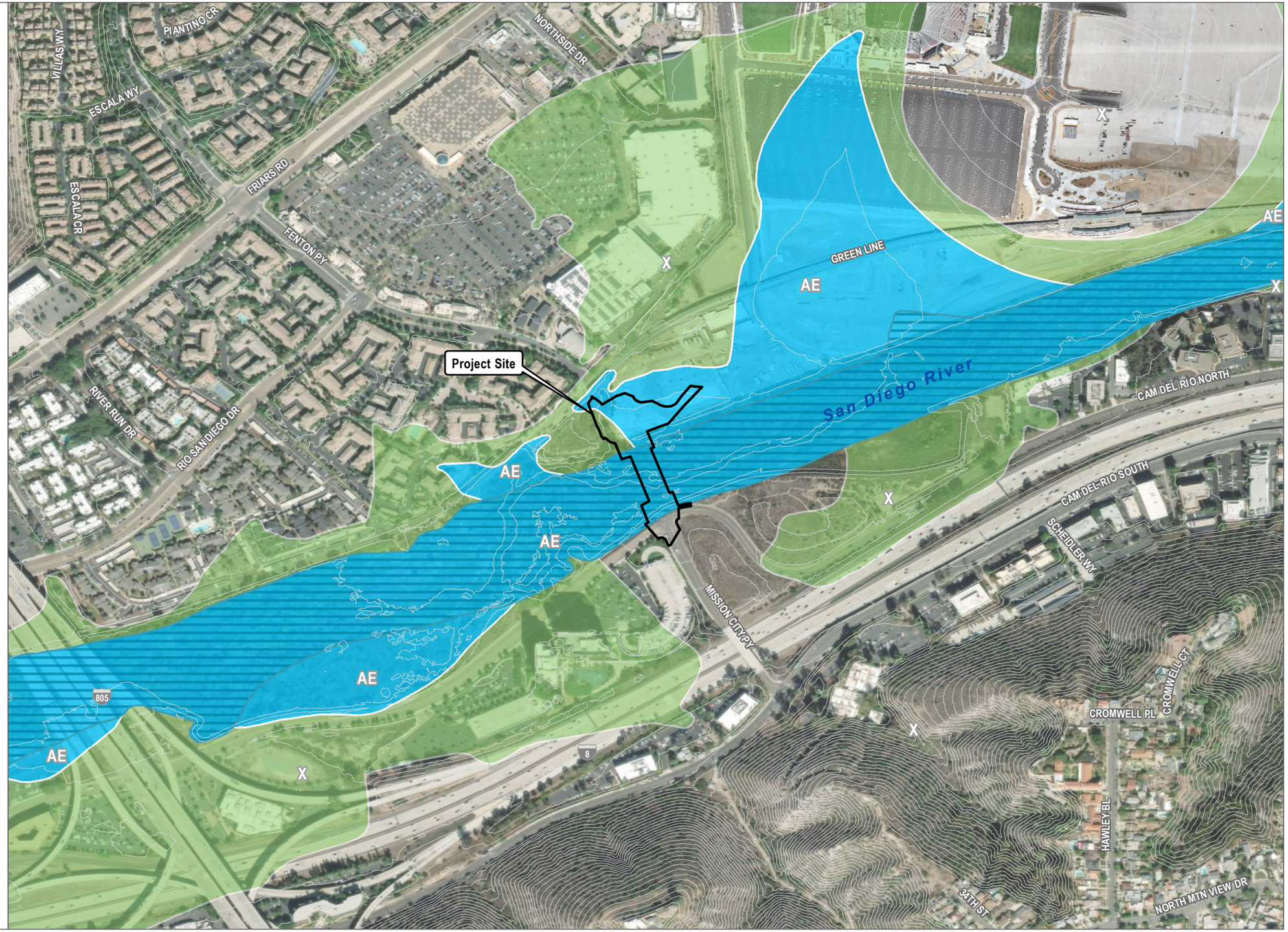
Project Work Area

ZONE AE: 100-Year Flood Hazard Area - Special Flood Hazard Areas Subject to Inundation by the 1% Annual Chance Flood.

Floodway Areas in Zone AE

ZONE X: 500-year Flood Hazard Area - Areas of 0.2% annual chance flood; areas of 1% annual chance flood with depths of less than 1 foot or with drainage areas less than 1 square mile



SOURCE: Esri World Imagery 2022; FEMA 2023; SanGIS 2014

DUDEK 0 250 500 Feet

FIGURE 3.9-1

Existing Flood Zones

Fenton Parkway Bridge Project EIR

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3.10 Land Use and Planning

This section describes the existing land use and planning conditions of the project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Fenton Parkway Bridge Project (project).

A notice of preparation was circulated from May 22, 2023, to June 20, 2023. A total of 16 letters were received during this comment period. Comments related to land use and planning included topics such as remaining consistent with the City of San Diego (City) Land Development Code Environmentally Sensitive Lands, conflicts with local policies and ordinances designed to protect trees, and the fact that the San Diego River is part of the City's Multi-Habitat Protection Area (MHPA). Please see Appendix A, NOP and Scoping Comments, for a complete compilation of comments received in response to the notice of preparation.

3.10.1 Existing Conditions

3.10.1.1 Surrounding Area

The project area is surrounded by major freeways, roadways, existing urban development, and the San Diego River. Higher density multifamily residential land uses are located to the northwest, southwest, and east, across Interstate (I) 15. Fenton parkway and the Metropolitan Transit System Fenton Parkway Station are located to the north. The San Diego River, which is part of the City's Multiple Species Conservation Program (MSCP), runs directly through the project site. North of the Fenton Parkway Station are multifamily housing and large commercial retail uses. Areas south of the project site include office uses and I-8. Surrounding land uses include commercial and residential uses to the north, San Diego State University (SDSU) Mission Valley to the northeast, office and healthcare uses to the south, and open space to the east, including the San Diego River. The proposed project is located within the boundary of the City's MHPA, which is part of the MSCP.

Areas surrounding the project site are zoned as open space (OF-1-1), commercial space (CO-2-2), single unit residential (RS-1-14), employment mixed use (EMX-2), multifamily residential (RM-4-10), single-family residential (RS-1-1), and open space (OF1-1).

3.10.1.2 Project Site

The project site is zoned as Open Space-Floodplain (OF-1-1), Employment Mixed-Use (EMX-2), and Residential Single Unit (RS-1-14) (City of San Diego 2021).

The Mission Valley Specific Plan designates the project site as "San Diego River Subdistrict CPIOZ." The designation includes regulations to ensure that development along the San Diego River implements the San Diego River Park Master Plan. The River Subdistrict regulations have been designed to preserve and enhance the character of the San Diego River Valley, to provide for sensitive rehabilitation and redevelopment, and to create the San Diego River Pathway. The San Diego River Subdistrict CPIOZ includes the River Corridor Area and the River Influence Area.

3.10.2 Regulatory Setting

Federal

No federal regulations related to land use and planning apply to the proposed project.

State

Regional

Regional Transportation Plan/Sustainable Communities Strategy

Senate Bill 375 (2008), the Sustainable Communities and Climate Protection Act, coordinates land use planning, regional transportation plans, and funding priorities to reduce GHG emissions from passenger vehicles through better-integrated regional transportation, land use, and housing planning that provides easier access to jobs, services, public transit, and active transportation options. Senate Bill 375 specifically requires the metropolitan planning organization relevant to the project area (here, the San Diego Association of Governments [SANDAG]) to include a sustainable communities strategy (SCS) in its regional transportation plan (RTP) that, if implemented, will achieve GHG emission reduction targets set by the California Air Resources Board by reducing vehicle miles traveled from light-duty vehicles through the development of more compact, complete, and efficient communities.

For the area under SANDAG's jurisdiction, including the project site, the California Air Resources Board originally adopted regional targets for reduction of mobile source-related GHG emissions to 40% below 1990 levels by 2035 and 80% below 1990 levels by 2050.

Pursuant to Government Code Section 65080(b)(2)(K), an SCS does not regulate the use of land; supersede the land use authority of cities and counties; or require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it.

SANDAG's SCS was first included in the 2050 RTP/SCS, which was adopted by SANDAG in October 2011. The original plan has since been superseded by the RTP/SCS adopted by SANDAG's Board in 2021.

SANDAG's Reimagined Transportation System (the current RTP/SCS for the region) contains five big moves (SANDAG 2021a):

1. Complete Corridors will act as the backbone of the entire regional transportation system, using technology, infrastructure improvements, pricing, and connectivity to support all forms of movement.
2. Transit Leap will offer people a network of high-capacity, high-speed, and high-frequency transit services that will incorporate new modes of transit while also providing improved existing services.
3. Mobility Hubs will be centers of activity where a high concentration of people, destinations, and travel choices converge. They will offer on-demand travel options and safe streets to enhance connections to high-quality transit while also making it easier for people to take short trips without needing a car.
4. Flexible Fleets will offer people a variety of on-demand, shared vehicles, including microtransit, bikeshare, scooters, and other modes of transportation that will connect them to transit and make travel easy within Mobility Hubs.

5. Next Operating System (Next OS) will be the "brain" of the transportation system – an integrated digital platform that ties the transportation system together. Next OS will enable the transportation system to be managed in real time so that people can be connected immediately to the modes of transportation that work best for them for any given situation and at any time. Complete Corridors, Transit Leap, Mobility Hubs, and Flexible Fleets describe transformed physical transportation networks. Next OS will be the digital network that analyzes data in real time from the region's physical networks, making them all work better – more integrated, more efficient, and most of all, more responsive to people's immediate needs.

The northern portion of the project site is shown as a potential "Town Center" on the SANDAG Smart Growth Concept Map, which is included in the RTP/SCS and also updated from time to time. The most recent version of the Smart Growth Concept Map is dated February 2021 (SANDAG 2021b). For SANDAG's planning purposes, Town Centers are defined as follows:

- Suburban downtowns within the region
- Low- and mid-rise residential, office, and commercial buildings
- Some employment
- Draws people from the immediate area
- Served by corridor/regional transit lines and local services or shuttle services

In general, the goals and policies of the SCS that reduce vehicle miles traveled (and result in corresponding GHG emission reductions) focus on transportation and land use planning and include locating residents closer to where they work and play and designing communities so there is access to high quality transit service and non-vehicular modes of transportation. The SCS adopted by SANDAG is expected to reduce per capita transportation emissions to 40% below 1990 levels in 2030 and 80% below 1990 levels by 2050.

Multiple Species Conservation Program

The MSCP is a comprehensive regional long-term habitat conservation program designed to provide permit issuance authority for take of covered species to the local regulatory agencies. The MSCP addresses habitat and species conservation within approximately 900 square miles in the southwestern portion of San Diego County (County of San Diego 1998). It serves as an approved habitat conservation plan pursuant to the federal Endangered Species Act and an approved natural communities conservation plan in accordance with the state Natural Communities Conservation Planning Act (County of San Diego 1998).

The MSCP establishes a preserve system designed to conserve large blocks of interconnected habitat having high biological value, which are delineated as the MHPA. The City's MHPA is an area within which a "hard line" preserve will be established in cooperation with the wildlife agencies, property owners, developers, and environmental groups. The MHPA identifies biological core resource areas and corridors targeted for conservation, in which only limited development may occur (City of San Diego 1997).

The MSCP identifies 85 plants and animals to be "covered" under the plan (Covered Species). Many of these Covered Species are subject to one or more protective designations under state and/or federal law, and some are endemic to San Diego. The MSCP seeks to provide adequate habitat in the preserve to maintain ecosystem functions and persistence of extant populations of the 85 Covered Species, while also allowing participating landowners "take" of Covered Species on lands located outside of the preserve. The purpose of the MSCP is to

address species conservation on a regional level and thereby avoid project-by-project biological mitigation, which tends to fragment habitat.

Signatory agencies/districts administer their portions of the MSCP through subarea plans and implementing agreements. Within the City, the MSCP is implemented through the City of San Diego MSCP Subarea Plan (Subarea Plan) and Implementing Agreements (City of San Diego 1997), as well as referenced companion documents, including the Environmentally Sensitive Lands (ESL) Regulations and San Diego Biology Guidelines of the Land Development Manual.

SDSU is not signatory to the San Diego MSCP and is therefore not a "permittee" under this habitat conservation plan. However, pursuant to a Memorandum of Understanding between SDSU and the City, project activities will require discretionary approval from the City and, therefore, bridge design and construction will be done in a manner consistent with the MSCP, including the City's ESL regulations and San Diego Biology Guidelines, which provide a compliance and implementation mechanism for the Subarea Plan and its Implementing Agreement (City Land Development Code [LDC] Section 143.0103). Because SDSU is not a permittee of this habitat conservation plan and because SDSU does not need to obtain any entitlements that would constitute a discretionary action by the City, the restrictions typically placed on land within the MHPA as per the City's Biology Guidelines do not apply to SDSU or SDSU-owned land. SDSU also is not subject to the City's land use policies.

Local

City of San Diego Municipal Code

Specific development regulations pertaining to sensitive biological resources exist in the San Diego Municipal Code in both the ESL Regulations (Chapter 14, Division 1, Section 143.0141) and the Open Space Residential (OR-1-2) Zone section (Chapter 13, Division 2, Section 131.0230) of the LDC (Chapters 11 to 15 of the San Diego Municipal Code).

Environmentally Sensitive Lands Regulations

The ESL Regulations provide a compliance and implementation mechanism for the Subarea Plan and its Implementing Agreement. According to LDC Section 143.0101, the purpose of the ESL Regulations are to "protect, preserve, and, where damaged restore, the ESL of San Diego and the viability of the species supported by those lands." In addition to serving as the implementation mechanism for the Subarea Plan, the ESL Regulations and Land Development Manual supporting documents (Biology, Steep Hillside, and Coastal Bluffs and Beaches Guidelines) serve as standards for the determination of impacts and mitigation under CEQA.

As defined in LDC Section 113.0103, ESL means land containing steep hillsides, sensitive biological resources, coastal beaches, sensitive costal bluffs, or Special Flood Hazard Areas. Development on ESL requires a development permit in accordance with Section 143.0110 of the LDC, unless exempted pursuant to LDC Section 143.0110(c), and is subject to the ESL regulations and various guidelines in the Land Development Manual, with limited exceptions as outlined in LDC Section 143.0111. Deviations from the ESL Regulations may be granted in accordance with LDC Section 143.0150. Deviations to the wetland regulations in Section 143.0141(b), in particular, may be granted for development that is located outside of the Coastal Overlay Zone and qualifies under either the Essential Public Project Option, the Economic Viability Option, or the Biologically Superior Option according to LDC Section 143.0150(d). Because Fenton Parkway Bridge is a linear infrastructure project

identified in the Mission Valley Community Plan (MVCP) as a proposed connection, it meets the criteria to be categorized as an Essential Public Project (see LDC Section 143.0150[d][1][B][ii]).

City of San Diego General Plan – City of Villages

A comprehensive update of the City of San Diego General Plan (General Plan) was adopted in 2008, incorporating the City of Villages strategy, which in turn was developed and adopted as part of the Strategic Framework Element in 2002. The Strategic Framework Element represented the City's new approach for shaping how the City will grow while attempting to preserve the character of its communities and its most treasured natural resources and amenities. It was developed to provide the overall structure to guide the General Plan update and future Community Plan Updates and amendments, as well as the implementation of an action plan.

Under the City of Villages strategy, the General Plan aims to direct new development projects away from natural undeveloped lands into already urbanized areas and/or areas where conditions allow the integration of housing, employment, civic, and transit uses, mirroring regional planning and smart growth principles intended to preserve remaining open space and natural habitat and focus development in areas with available public infrastructure.

The General Plan includes 10 elements intended to provide guidance for future development: (1) Land Use and Community Planning Element; (2) Mobility Element; (3) Urban Design Element; (4) Economic Prosperity Element; (5) Public Facilities, Services, and Safety Element; (6) Recreation Element; (7) Conservation Element; (8) Noise Element; (9) Historic Preservation Element; and (10) Housing Element (City of San Diego 2008).

The Housing Element, which must be updated every 8 years under state law, was last updated in 2013. It is required to be consistent with the General Plan goals and City of Villages strategy.

City of San Diego Climate Action Plan

In August 2022, the City adopted its final CAP (City of San Diego 2022). With the City's modernized approach to monitoring progress achieving a net-zero goal, progress will be measured towards "0" rather than measuring against a historic baseline. With implementation of the CAP, the City aims to achieve 4,223,000 metric tons of CO_2 equivalent by 2030, a 61% reduction from 2019 per capita emissions, and achieve net zero GHG emissions by 2035. It is anticipated that the City will meet and exceed its GHG reduction targets with implementation of the CAP. For additional information regarding the City's CAP, please see Section 3.7, Greenhouse Gas Emissions, of this EIR.

San Diego River Park Master Plan

The San Diego River Park Master Plan, adopted by the City in 2013, is a policy document that communicates a common vision, principles, and recommendations to guide land use decisions within the River Corridor and River Influence Areas along the San Diego River. Thus, the Master Plan informs development along the river in Mission Valley. The Master Plan envisions the creation of a distinct, identifiable park along the river. This vision for the river is supported by five main principles (City of San Diego 2013):

- Restore and maintain a healthy river system
- Unify fragmented lands and habitats
- Create a connected continuum, with a sequence of unique places and experiences
- Reveal the river valley history

- Reorient development toward the river to create value and opportunities for people to embrace the river

Specific recommendations for how to achieve this vision are provided within the Master Plan. They include providing interpretive signage at key locations, creating new pedestrian and bicycle connections, and pursuing opportunities to address the hydrology of the river. The Master Plan also provides site-specific recommendations for any redevelopment of the project site.

Mission Valley Community Plan Update

On February 6, 2019, a second working draft of the MVCP and the Draft Environmental Impact Report were released for public review (City of San Diego 2019a). The Final Draft of the MVCP Update, as well as the Final Program EIR, was released on May 31, 2019 (City of San Diego 2019b). The MVCP Update was approved by the City Council on September 10, 2019.

In the Final Program EIR for the MVCP Update, the City states that the MVCP Update serves as a comprehensive long-term plan for the physical development of the Mission Valley Community Planning Area and is intended to manage and address future growth through 2050 (City of San Diego 2019b). The MVCP Update is intended to provide orderly growth and redevelopment by placing higher density residential development within and around transit and commercial corridors (City of San Diego 2019b).

The MVCP Update identifies "conceptual changes" (Figure 3 in the MVCP Update [City of San Diego 2019b]) for several areas of Mission Valley, including "Eastern Mission Valley" (City of San Diego 2019a). The "Eastern Mission Valley" referenced in the MVCP Update encompasses the Fenton Parkway Bridge project site. The update to the MVCP also makes several direct references to the extension of Fenton Parkway into Mission City Parkway to improve access to the Green Line station and better connect the northern and southern sides of the San Diego River.

San Diego State University Climate Action Plan

In April 2017, SDSU approved its Climate Action Plan (CAP), which was prepared by the university's Climate Action Planning Council and describes the university's commitment to achieving specified greenhouse gas (GHG) reductions (SDSU 2017). The SDSU CAP provides a framework for the SDSU main campus located in the College Area to reach operational carbon neutrality by 2040 and full carbon neutrality by 2050. The plan also addresses other sustainability issues, including water, waste, and food. The SDSU CAP provides a set of interim goals and strategies in order to achieve carbon neutrality and to improve sustainability efforts at the SDSU College Area campus.

3.10.3 Significance Criteria

The significance criteria used to evaluate the project impacts to land use and planning are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to land use and planning would occur if the project would:

1. Physically divide an established community.
2. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Based on the results of the initial study prepared for the proposed project (Appendix A), the following thresholds are evaluated herein:

1. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

3.10.4 Impacts Analysis

Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Pre-Cast or Cast-in-Place Construction Methods

As described above, because SDSU is a component of the CSU, which is a state agency, the proposed project is not subject to local government planning and land use plans, policies, or regulations. However, for informational purposes, the proposed project has considered these planning documents and the project site's location within, and relationship to, each.

City of San Diego Land Development Code – Environmentally Sensitive Lands Regulation

Development subject to ESL Regulations requires a Site Development Permit in accordance with Section 143.0110. If a proposed development does not comply with all applicable ESL Regulations, the proposed development permit may be approved, conditionally approved, or denied and granted a deviation based on specific findings that must be made in accordance with LDC Section 143.0150.

The City's ESL Regulations, Section 143.0141(b)(5), require impacts to wetlands within an MHPA to be avoided. Per Section 143.0141(a)(5)(C), any development with impacts to wetlands is required to process a deviation in accordance with Section 143.0150(d). Deviations to the wetland regulations in Section 143.0141(b), in particular, may be granted for development that is located outside of the Coastal Overlay Zone and qualifies under either the Essential Public Project Option, the Economic Viability Option, or the Biologically Superior Option according to the City's LDC Section 143.0150(d).

The definition of an Essential Public Project provided in LDC Section 143.0510(d)(1)(B)(ii) includes linear infrastructure, including but not limited to major roads and land use plan circulation element roads and facilities including bike lanes, water and sewer pipelines including appurtenances, and stormwater conveyance systems including appurtenances. The Fenton Parkway Bridge is a linear infrastructure project identified in the MVCP Circulation Element as a proposed roadway connection, and thus qualifies as an Essential Public Project. It is an essential public facility and a road in compliance with policies described in Section 1.4.2 of the Subarea Plan. As such, the proposed project is considered a conditionally compatible land use pursuant to Section 1.4.1 of the Subarea Plan (City of San Diego 1997).

According to LDC Section 143.0510(d)(1)(A), a deviation may only be requested for an Essential Public Project where no feasible alternative exists that would avoid impacts to wetlands. There are approximately 1.23 acres of jurisdictional resources on the project site, all of which are considered wetlands under the City's jurisdiction and all of which would be impacted by the proposed project. Construction of Fenton Parkway Bridge occurs within wetlands and no feasible alternative exists that would avoid impacts to wetlands and allow for development of the bridge.

See Section 3.3, Biological Resources, for a detailed description of the proposed project's qualification under the Essential Public Projects Option and deviation from the City's ESL Regulations. The proposed project would not conflict with the City's ESL Regulations for Essential Public Projects.

San Diego State University Climate Action Plan

The SDSU CAP's vision for transportation emissions includes improvement of bicycle and pedestrian amenities and overall reduction in single-occupancy vehicle trips to the campus. As discussed previously, the proposed project involves a roadway expansion and infrastructure enhancement to connect residents and businesses south of the San Diego River to land uses north of the river off Friars Road, including the SDSU Mission Valley development, which was approved by the Board of Trustees of the CSU in 2020 (City of San Diego 2019b). The roadway expansion and bridge would include separated bike lanes and sidewalks, which would promote alternative travel along the new high-water crossing over the San Diego River. This new bicycle and pedestrian route in an area with limited north-south connectivity is expected to substantially reduce trip lengths for these modes and greatly encourage their use. Additionally, the controlled intersection crossings and designated bicycle facilities through intersections will enhance multimodal safety, in addition to enhancing first-mile/last-mile access to the existing Fenton Parkway Trolley Station. The proposed project is also expected to decrease vehicle miles traveled within the region, given that the expansion provides a more direct route to and from destinations. As such, the proposed project would support the vision of and not conflict with the relevant goals of the SDSU CAP.

City of San Diego Climate Action Plan

The City's CAP is a local regulation and therefore is not binding on the CSU, which is a state agency. Nevertheless, because the City will ultimately own and operate the proposed project following its construction, and because the proposed project is located within the territorial limits of the City, an analysis of the proposed project's consistency with the City's CAP is provided for informational purposes. This analysis does not form the basis for concluding whether the project has a significant CEQA impact; it is informational only.

The City's 2022 CAP included CAP Consistency Regulations (in replacement of their previous checklist) for general land use project-level analyses. For public infrastructure projects, the City prepared a memo (Climate Action Plan Consistency for Plan- and Policy-Level Environmental Documents and Public Infrastructure Projects Memo), which outlines an alternative approach to evaluating project consistency with the CAP that is more appropriate for infrastructure projects (City of San Diego 2022). Per the City's recommended approach, environmental analysis for public infrastructure projects should include a discussion of overall consistency with each of the City's CAP key strategies, specifically identifying project features that would meet goals of the plan. A discussion of the proposed project's consistency with the six key strategies of the CAP is in Section 3.7. As demonstrated therein, the project is consistent with the six key strategies of the CAP and no impacts or conflicts would occur.

San Diego River Park Master Plan

The project site includes areas that are within the River Influence Area of the San Diego River as identified in the San Diego River Park Master Plan. The San Diego River Park Master Plan includes specific recommendations related vehicular/pedestrian/bicycle bridges. As stated in Section 4.3.2.7, Bridges, of the San Diego River Park Master Plan, "Vehicular/pedestrian/bicyclist bridges should include a sidewalk for pedestrians and where possible a Class 1 bike route in each direction or, at a minimum, on one side of the bridge" (City of San Diego 2013). The proposed project would implement the recommendations in the San Diego River Park Master Plan by installing combined bicycle and pedestrian pathways. These facilities would be raised above the travel lanes on

either side of the bridge. The 6.5-foot-wide bike lane would be separated from a 5.5-foot-wide pedestrian path by a 6-inch-wide strip of yellow truncated domes (see Figure 2-3, Project Site Plan).

The bicycle paths would provide an extension of the existing standard bicycle lanes on Fenton Parkway north of the trolley tracks, and they would provide a new connection to existing bicycle lanes on Camino Del Rio North, west of Mission City Parkway, and paths within the SDSU Mission Valley site and river park. The elevated paths would provide an enhanced level of protection for cyclists and help to encourage this mode of travel. The City is also expected to install bicycle lanes on Mission City Parkway that will connect to existing buffered bike lanes on Camino Del Rio South, east of Mission City Parkway. The Fenton Parkway Bridge bicycle facilities are a critical element to enhancing connectivity, increasing accessibility, and enhancing safety for bicyclists in Mission Valley.

The provision of sidewalks on the new bridge would enhance walkability for commuters and recreational pedestrians in this area of Mission Valley. Employees in buildings along the Camino Del Rio North and South corridors would be able to walk to the river park uses within the SDSU Mission Valley site, as well as to restaurant and retail opportunities within Fenton Marketplace, all of which will be within a 0.5-mile distance.

The proposed project would be consistent with the San Diego River Park Master Plan as it relates to bridge design and bicycle/pedestrian facilities. No conflicts would result.

Multiple Species Conservation Program

The proposed project would occur within and adjacent to the Subarea Plan MHPA (City of San Diego 1997). Table 3.3-8 within Section 3.3 describes the Land Use Considerations and guidelines and the proposed project's consistency with them. The proposed project would result in direct impacts to the San Diego River, which is in the MHPA. Section 1.4.2, General Planning and Design Guidelines, of the Subarea Plan states that "Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/emergency access roads. Local streets should not cross the MHPA except where needed to access isolated development areas" (City of San Diego 1997). The proposed project is referenced in the Mission Valley Community Plan (adopted by the City in 2019) and is a long-sought infrastructure enhancement in the Mission Valley community as a means of connecting residents and businesses south of the San Diego River to land uses north of the river off Friars Road, including the SDSU Mission Valley development, which was approved by the Trustees of the CSU in 2020 (City of San Diego 2019b). SDSU Mission Valley includes Snapdragon Stadium and will include parks, open space, and new residential, commercial, and innovation-district uses. The proposed project would facilitate an additional vehicular, bicycle, and pedestrian connection between the businesses and residential areas north and south of the San Diego River. A full analysis of the project's consistency with Sections 1.4.1, 1.4.2, 1.4.3, and 1.5.2 of the Subarea Plan is described in Section 3.3. Therefore, the development of the bridge within the MHPA would be consistent with the Subarea Plan and there would be no impact to the City's or other local agencies' abilities to implement the MSCP. Please refer to Section 3.3.

Mission Valley Community Plan Update

The location of the proposed project is consistent with the MVCP Update, which contemplates a multimodal bridge crossing the San Diego River as an extension of Fenton Parkway. This is the only San Diego River crossing contemplated in the MVCP Update located between I-805 and I-15. The update to the MVCP makes several direct references to the extension of Fenton Parkway to Mission City Parkway to expand north–south mobility in the eastern portion of the community and help support additional trips that will result from planned development as part of the Campus Master Plan. It would also greatly benefit pedestrians, bicycles, and transit users by improving

access to the Green Line station, the San Diego River Trail, and a variety of land uses, while also providing a high-water crossing on the east side of the community during flooding events. The proposed project is consistent with the MVCPU and no conflicts would occur.

As demonstrated in the analysis above, the project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Land use impacts under either construction method and operation would be **less than significant**.

3.10.5 Cumulative Impacts

Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The geographic scope for the cumulative analysis for land use and planning is the MVCP Area. Like the proposed project, development of the cumulative projects is expected to occur in accordance with adopted plans and regulations. If plan amendments or zone changes are needed to accommodate particular projects, they would be carried out in accordance with established local procedures, including CEQA review and an evaluation of consistency with policies/regulations adopted for the purpose of avoiding or mitigating a physical impact on the environment. Based on the information available regarding the cumulative projects, such projects under consideration in the cumulative project area would implement and support important local and regional planning goals and policies. New projects would be subject to appropriate permit approval processes and would incorporate mitigation measures necessary to reduce potential land use and planning impacts. Furthermore, as the proposed project would be consistent with applicable land use plans, policies, and regulations, the proposed project would not incrementally contribute to significant cumulative land use inconsistencies. Therefore, no significant cumulative land use impacts are anticipated.

3.10.6 Summary of Impacts Prior to Mitigation

The proposed project would not result in a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Land use impacts would be **less than significant**.

3.10.7 Mitigation Measures

No mitigation measures would be required.

3.10.8 Level of Significance After Mitigation

Impacts relating to land use would be **less than significant**. No mitigation measures would be required.

3.11 Noise

This section describes the existing noise conditions of the project site and vicinity, identifies associated regulatory requirements, and evaluates potential impacts related to implementation of the proposed Fenton Parkway Bridge Project (project). A Noise Technical Report was prepared by Dudek in February 2024 and is included herein as Appendix H. Additionally, refer to 3.3 Biological Resources for a discussion regarding noise impacts on biological resources.

3.11.1 Existing Conditions

The project site is located within the Mission Valley Community Plan area in the City of San Diego (City) (City of San Diego 2019). The Mission Valley Community Plan area is composed of approximately 2,418 acres, which include a variety of residential, retail, commercial, transportation, and open space land uses.

The project site is situated south of Fenton Parkway and the Fenton Marketplace and north of Camino Del Rio North and would connect these two roadways. The San Diego River bisects the project site from east to west. Surrounding uses include commercial and residential uses to the north, the San Diego State University (SDSU) Mission `Valley development (including Snapdragon Stadium) to the northeast, office and healthcare uses to the south, and open space to the east, including the San Diego River. The bridge would traverse and be adjacent to the City's MHPA and the City's Stadium Mitigation Site.

The elevation ranges from approximately 35 feet above mean sea level to 300 feet above mean sea level. The project site is comprised of developed areas, disturbed habitat, and native habitat. The project site includes the lower floodplain of the San Diego River, developed areas associated with the SDSU Mission Valley site development, Camino Del Rio North, and an undeveloped area south of Camino Del Rio North.

Noise and Vibration Basics

Sound

Noise is defined as unwanted sound. Sound may be described in terms of level or amplitude (measured in decibels [dB]), frequency or pitch (measured in hertz or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the amplitude of sound is the decibel. Because the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale is used to relate noise to human sensitivity. The dBA scale performs this compensation by discriminating against low and very high frequencies in a manner approximating the sensitivity of the human ear. Several descriptors of noise (noise metrics) exist to help predict average community reactions to the adverse effects of environmental noise, including traffic-generated noise, on a community. These descriptors include L_{eq}, the statistical sound level, the day–night average noise level (L_{dn}), and the Community Noise Equivalent Level (CNEL). Each of these descriptors uses units of dBA. Table 3.11-1 provides examples of A-weighted noise levels from common sounds. In general, human sound perception is such that a change in sound level of 3 dBA is barely noticeable, a change of 5 dBA is clearly noticeable, and a change of 10 dBA is perceived as doubling or halving the sound level.

Table 3.11-1. Typical Exterior and Interior Sound Levels in the Environment

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
—	110	Rock band
Jet flyover at 300 meters (1,000 feet)	100	—
Gas lawn mower at 1 meter (3 feet)	90	—
Diesel truck at 15 meters (50 feet), at 80 kilometers per hour (50 mph)	80	Food blender at 1 meter (3 feet)
		Garbage disposal at 1 meter (3 feet)
Noisy urban area, daytime	70	Vacuum cleaner at 3 meters (10 feet)
gas lawn mower at 30 meters (100 feet)		
Commercial area	60	Normal speech at 1 meter (3 feet)
Heavy traffic at 90 meters (300 feet)		
Quiet urban daytime	50	Large business office
		Dishwasher, next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime	30	Library
Quiet rural nighttime	20	Bedroom at night, concert hall (background)
—	10	Broadcast/recording studio
Lowest threshold of human hearing	0	Lowest threshold of human hearing

Source: Caltrans 2013.
Note: dBA = A-weighted decibel.

The L_{eq} value is sound level energy averaged over a specified period (typically no less than 15 minutes for environmental studies). It is a single numerical value that, if constant over time, represents the same amount of variable sound energy received by a receptor during a time interval. For example, a 1-hour L_{eq} measurement would represent the average amount of energy contained in all the noise that occurred in that hour. L_{eq} is an effective noise descriptor because of its ability to assess the total time-varying effects of noise on sensitive receptors.

Unlike the L_{eq} metric, which can be defined for any duration, L_{dn} and CNEL descriptors always represent 24-hour periods, often on an annualized basis. The L_{dn} and CNEL values also differ from L_{eq} because they apply a time-weighted dB adjustment designed to emphasize noise events that occur during the evening and nighttime hours (when speech and sleep disturbance is of more concern). "Time weighted" refers to the fact that L_{dn} and CNEL penalize noise that occurs during certain sensitive periods. In the case of CNEL, noise occurring during the daytime (7:00 a.m.–7:00 p.m.) receives no penalty. Noise during the evening (7:00 p.m.–10:00 p.m.) is penalized by adding 5 dB, while nighttime (10:00 p.m.–7:00 a.m.) noise is penalized by adding 10 dB. L_{dn} differs from CNEL in that the daytime period is defined as 7:00 a.m.–10:00 p.m., thus eliminating the evening period. L_{dn} and CNEL are the predominant criteria used to measure roadway noise affecting residential receptors. These two metrics generally differ from one another by no more than 0.5 dB to 1 dB and, as such, are often treated as equivalent to one another.

Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration can be a serious concern, causing buildings to shake and rumbling sounds to be heard. In contrast to noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some

common sources of vibration are trains, buses on rough roads, and construction activities, such as blasting, pile driving, and heavy earthmoving equipment.

Several different methods are used to quantify vibration. Peak particle velocity (PPV), expressed in inches per second (ips), is defined as the maximum instantaneous peak of the vibration signal and is most frequently used to describe vibration impacts to buildings. The root mean square amplitude is most frequently used to describe the effect of vibration on the human body and is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to describe this root mean square magnitude with respect to a reference value, which acts to compress the range of numbers required to discuss vibration in the context of impact assessment.

The calculation to determine PPV at a given distance is as follows:

$$PPV_{rcvr} = PPV_{ref}*(25/D)^{n}$$

Where:

PPV_{rcvr} = the peak particle velocity in inches per second of the equipment adjusted for distance (i.e., at the receiver)

PPV_{ref} = the reference vibration level in inches per second at 25 feet

D = the distance from the equipment to the receiver

n = an exponent, for which a value of 1.1 would be consistent with Caltrans suggestion for class III "hard soils" composed of dense compacted sand or dry consolidated clay.

The above PPV_{rcvr} value can be converted to a root mean square vibration velocity level as follows, where the crest factor (CF) is assumed to be a value of 4 per Federal Transit Administration (FTA) guidance (FTA 2018):

$$VdB_{rcvr} = 20*LOG(PPV_{rcvr}/(CF*0.000001))$$

Sensitive Receptors

Noise- and vibration-sensitive land uses are typically locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would be considered noise and vibration sensitive and may warrant unique measures for protection from intruding noise. Existing sensitive receptors in the vicinity of the project site consist of residential uses (Del Rio Apartments) located to the northwest of the project site. While the project site is surrounded by other land uses, such as offices, a library, and retail/commercial properties, these uses do not have the same noise sensitivity as residential spaces, at which the City construction noise limits (75 dBA L_{eq} over a 12-hour period) and the most stringent non-construction exterior noise thresholds (as adopted by the California State University) would apply. Hence, these nearby residential sensitive receptors were studied herein and have the greatest potential to be impacted by construction and/or operation of the project.

Additionally, because project noise emission attenuates naturally as it propagates away from sound sources, off-site receptors that are more distant from the project site than the nearest noise-sensitive residences, or are not residential uses, would be exposed to lower project-attributed noise levels. For these reasons, if project noise exposures are found to be compliant with City standards (with or without application of noise reduction measures) at the nearest residences studied herein, it can be inferred that noise levels would also be compliant at more distant off-site receptors and receptors with higher noise thresholds.

Existing Noise Conditions

Sound pressure level measurements were conducted at six representative positions in the vicinity of the project site on February 9, 2023, to characterize and quantify samples of the existing outdoor ambient noise environment. The noise measurement locations are shown in Figure 3.11-1. Table 3.11-2 provides a summary of the noise measurement results, as well as the site tag, noted noise sources, and times the noise level measurements were conducted. As shown in Table 3.11-2, short-term (up to 14 minutes in duration) noise levels ranged from approximately 48 A-weighted decibels (dBA) equivalent continuous sound level (L_{eq}) (at location D) to 76 dBA L_{eq} (at location E). The measurements were conducted by an attending Dudek investigator using a SoftdB Piccolo II model sound level meter equipped with a 0.5-inch wind-screened microphone. The Piccolo II meets the current ANSI standard for a Type 2 (General Grade) instrument. The accuracy of the Piccolo II was verified using a field calibrator before and after the sound pressure level measurements, and the measurements were conducted with microphone positioned approximately 5 feet above the ground, as shown in photographs appearing in Appendix H, Noise Technical Report.

The measured samples of daytime L_{eq} agree with expectations based on proximity to Interstate 15 and Interstate 8: values tend to decrease with distance from these major acoustical contributors to the sound environment, until noise from localized sources (e.g., local roadway traffic, construction activities) exhibits greater influence on the measured outdoor ambient sound level. The elevation of the freeways (relative to the ground surface) and their connecting ramps at the interchange, as well as the potential sound-intervening presence of natural and human-made terrain (e.g., commercial buildings) also influence the measured outdoor sound pressure level.

Table 3.11-2. Measured Outdoor Ambient Noise Levels on February 9, 2023

Site Tag	Start and End Times (hh:mm)	Sound Level Metrics (dBA)			Statistical Levels (dBA)			Observation Notes (regarding sound sources)
		L_{eq}	L_{max}	L_{min}	L_{10}	L_{50}	L_{90}	
A	10:22 a.m. to 10:36 a.m.	55.0	67.3	51.0	55.4	54.2	53.3	Fire alarm activated at Snapdragon Stadium; trolley pass-by.
B	10:53 a.m.	52.4	58.1	48.7	56.0	51.4	48.8	
B	10:56 a.m.	51.6	66.6	49.2	62.6	54.0	49.4	
C	10:39 a.m. to 10:54 a.m.	51.3	56.5	48.0	51.7	51.0	50.4	Fire alarm still active at Snapdragon Stadium; trolley pass-by.
D	11:03 a.m.	48.1	48.7	47.6	48.5	48.0	47.7	
E	11:23 a.m.	60.0	65.1	57.9	63.8	60.1	58.6	
E	11:24 a.m.	76.4	79.1	68.0	78.7	76.7	68.4	
F	12:40 p.m. to 12:50 p.m.	63.9	78.7	54.3	63.7	61.8	60.4	Cars through Camino Del Rio/Mission City Pkwy intersection constantly

Source: Appendix H.
Notes: dBA = A-weighted decibels; L_{eq} = equivalent continuous sound level (time-averaged sound level); L_{max} = maximum sound level during the measurement interval; L_{min} = minimum sound level during the measurement interval; L_{10} = sound level exceeded for a cumulative 10% of the measurement period; L_{50} = sound level exceeded for a cumulative 50% of the measurement period; L_{90} = sound level exceeded for a cumulative 90% of the measurement period.

Appendix H provides sample digital photographs of the field noise level survey locations and measurement data.

3.11.2 Relevant Plans, Policies, and Ordinances

Federal

Federal Transit Administration

In its Transit Noise and Vibration Impact Assessment Guidance Manual, the FTA recommends a daytime construction noise level threshold of 80 dBA L_{eq} over an 8-hour period (FTA 2018) when evaluating potential impacts to community residences surrounding a project. For receiving commercial land uses, the suggested threshold is 85 dBA 8-hour L_{eq} at any time of day or night. Although this FTA guidance is not a regulation, it can serve as a quantified standard in the absence of such noise limits at the state and local jurisdictional levels.

Federal Interagency Committee on Noise

Guidance regarding the determination of a substantial permanent increase in ambient noise levels in a project vicinity is provided by the 1992 findings of the Federal Interagency Committee on Noise (FICON) (FICON 1992), which assessed the annoyance effects of changes in ambient noise levels resulting from aircraft operations. The FICON recommendations are based on studies that relate aircraft and traffic noise levels to the percentage of persons highly annoyed by the noise. Annoyance is a qualitative measure of the adverse reaction of people to noise that generates speech interference, sleep disturbance, or interference with the desire for a tranquil environment.

The FICON recommendations assume that it is possible to consistently describe the annoyance of people exposed to transportation noise in terms of L_{dn}. Although the FICON recommendations were specifically developed to address aircraft noise impacts, they are used in this analysis to define a substantial increase in community noise levels related to all transportation noise sources and permanent non-transportation noise sources. The changes in noise exposure that are shown below are expected to result in equal changes in annoyance at sensitive land uses.

- If outdoor ambient sound level without the project is less than 60 dBA L_{dn}, then a project-attributed increase of 5 dBA or more would be considered significant.
- If outdoor ambient sound level without the project is between 60 and 65 dBA L_{dn}, a project-attributed increase of 3 dBA or more would be considered significant.
- If outdoor ambient sound level without the project is greater than 65 dBA L_{dn}, then a project-attributed increase of 2 dBA or more would be considered significant.

State

Transportation and Construction Vibration Guidance Manual

In its Transportation and Construction Vibration Guidance Manual (Caltrans 2020), the California Department of Transportation (Caltrans) recommends 0.5 ips PPV as a threshold for the avoidance of structural damage to typical newer residential buildings exposed to continuous or frequent intermittent sources of groundborne vibration. For transient vibration events, such as blasting, the damage risk threshold is 1.0 ips PPV (Caltrans 2020) at the same type of newer residential structures. For older structures, these guidance thresholds are more stringent: 0.3 ips PPV for continuous/intermittent vibration sources and 0.5 ips PPV for transient vibration events. With respect to human annoyance, Caltrans guidance indicates that building occupants exposed to continuous groundborne vibration would find it annoying at 0.2 ips PPV and unpleasant at 0.4 ips PPV. Although these Caltrans guidance thresholds are not regulations, they can serve as quantified standards in the absence of such limits at the local jurisdictional level.

Local

Because SDSU is a component of the California State University, which is a state agency, the proposed project is not subject to local government planning and land use plans, policies, or regulations. The proposed project would be subject to federal and state agency planning documents described above, but would not be subject to regional or local planning documents such as the City of San Diego General Plan (General Plan), Mission Valley Community Plan, or City municipal zoning code. However, for informational purposes, SDSU has considered the project site's location within and the project's relationship to each of the following planning documents.

The following are summarized portions or reproductions of relevant City noise regulations, policies, and guidance, as adopted by the California State University, with respect to assessing noise impact assessment for the proposed project.

City of San Diego Municipal Code 59.5.0401 (Noise Ordinance)

It shall be unlawful for any person to cause noise by any means to the extent that the 1-hour average sound level exceeds the applicable limit given in the Table 3.11-3 at any location in the City on or beyond the boundaries of the property on which the noise is produced. The noise subject to these limits is that part of the total noise at the specified location that is due solely to the action of said person.

Table 3.11-3. Applicable City of San Diego Exterior Noise Limits

Land Use	Time of Day	One-Hour A-weighted Average Sound Level (dBA)
Single-family residential	7:00 a.m. to 7:00 p.m.	50
	7:00 p.m. to 10:00 p.m.	45
	10:00 p.m. to 7:00 a.m.	40
Multifamily residential (up to a maximum density of 1/2,000)	7:00 a.m. to 7:00 p.m.	55
	7:00 p.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45
All other residential	7:00 a.m. to 7:00 p.m.	60
	7:00 p.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	50
Commercial	7:00 a.m. to 7:00 p.m.	65
	7:00 p.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	60
Industrial or agricultural	Any time	75

Note: dBA = A-weighted decibels.

City of San Diego Municipal Code 59.5.0404 (Noise Ordinance), Construction Noise

A. It shall be unlawful for any person, between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday, or on Sundays, to erect, construct, demolish, excavate for, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator. In granting such permit, the Administrator shall consider whether the construction noise in the vicinity of the proposed work site would be less objectionable at night than during the daytime because

of different population densities or different neighboring activities; whether obstruction and interference with traffic particularly on streets of major importance, would be less objectionable at night than during the daytime; whether the type of work to be performed emits noises at such a low level as to not cause significant disturbances in the vicinity of the work site; the character and nature of the neighborhood of the proposed work site; whether great economic hardship would occur if the work were spread over a longer time; whether proposed night work is in the general public interest; and he shall prescribe such conditions, working times, types of construction equipment to be used, and permissible noise levels as he deems to be required in the public interest.

B. Except as provided in subsection C. hereof, it shall be unlawful for any person, including the City of San Diego, to conduct any construction activity so as to cause, at or beyond the property lines of any property zoned residential, an average sound level greater than 75 decibels during the 12-hour period from 7:00 a.m. to 7:00 p.m.

C. The provisions of subsection B. of this section shall not apply to construction equipment used in connection with emergency work, provided the Administrator is notified within 48 hours after commencement of work.

City of San Diego General Plan

The City's General Plan Noise Element identifies compatible exterior noise levels for various land use types (City of San Diego 2015). The maximum allowable noise exposure varies depending on the land use. The maximum acceptable exterior noise level for residential uses and other noise-sensitive uses (including kindergarten through 12th grade schools, libraries, hospitals, daycare facilities, hotels, and motels) is 65 dBA CNEL. Table 3.11-4 reproduces Table NE-3 from the City's General Plan Noise Element.

Table 3.11-4. City of San Diego Land Use – Noise Compatibility Guidelines

Land Use Category	Exterior Noise Exposure (dBA CNEL)				
	55–60	60–65	65–70	70–75	75–80
Parks and Recreational					
Parks, Active and Passive Recreation					
Outdoor Spectator Sports, Golf Courses; Water Recreational Facilities; Indoor Recreation Facilities					
Agricultural					
Crop Raising and Farming; Community Gardens, Aquaculture, Dairies; Horticulture Nurseries and Greenhouses; Animal Raising, Maintain and Keeping; Commercial Stables					
Residential					
Single Dwelling Units; Mobile Homes		45			
Multiple Dwelling Units*		45	45*		
Institutional					
Hospitals; Nursing Facilities; Intermediate Care Facilities; Kindergarten through Grade 12Educational Facilities; Libraries; Museums; Child Care Facilities		45			
Other Educational Facilities including Vocational/Trade Schools and Colleges and Universities		45	45		
Cemeteries					

Table 3.11-4. City of San Diego Land Use – Noise Compatibility Guidelines

Land Use Category	Exterior Noise Exposure (dBA CNEL)				
	55–60	60–65	65–70	70–75	75–80
Retail Sales					
Building Supplies/Equipment; Food, Beverages and Groceries; Pets and Pet Supplies; Sundries, Pharmaceutical, and Convenience Sales; Wearing Apparel and Accessories			50	50	
Commercial Services					
Building Services; Business Support; Eating and Drinking; Financial Institutions; Maintenance and Repair; Personal Services; Assembly and Entertainment (includes public and religious assembly); Radio and Television Studios; Golf Course Support			50	50	
Visitor Accommodations		45	45	45	
Offices					
Business and Professional; Government; Medical, Dental and Health Practitioner; Regional and Corporate Headquarters			50	50	
Vehicle and Vehicular Equipment Sales and Services Use					
Commercial or Personal Vehicle Repair and Maintenance; Commercial or Personal Vehicle Sales and Rentals; Vehicle Equipment and Supplies Sales and Rentals; Vehicle Parking					
Wholesale, Distribution, Storage Use Category					
Equipment and Materials Storage Yards; Moving and Storage Facilities; Warehouse; Wholesale Distribution					
Industrial					
Heavy Manufacturing; Light Manufacturing; Marine Industry; Trucking and Transportation Terminals; Mining and Extractive Industries					
Research and Development				50	

Table Shading Key

	Compatible	Indoor Uses	Standard construction methods should attenuate exterior noise to an acceptable indoor noise level.
		Outdoor Uses	Activities associated with the land use may be carried out.
45, 50	Conditionally Compatible	Indoor Uses	Building structure must attenuate exterior noise to the indoor noise level indicated by the number for occupied areas.
		Outdoor Uses	Feasible noise mitigation techniques should be analyzed and incorporated to make the outdoor activities acceptable.
	Incompatible	Indoor Uses	New construction should not be undertaken.
		Outdoor Uses	Severe noise interference makes outdoor activities unacceptable.

Source: City of San Diego 2015.
* For uses affected by aircraft noise, refer to General Plan Noise Element Policies NE-D.2 and NE-D.3.

The City's General Plan Noise Element also lists the following policies with respect to noise and land use compatibility.

- **NE-A.1.** Separate excessive noise-generating uses from residential and other noise-sensitive land uses with a sufficient spatial buffer of less sensitive uses.
- **NE-A.2.** Assure the appropriateness of proposed developments relative to existing and future noise levels by consulting the guidelines for noise-compatible land use to minimize the effects on noise-sensitive land uses.
- **NE-A.3.** Limit future residential and other noise-sensitive land uses in areas exposed to high levels of noise.
- **NE-A.4.** Require an acoustical study consistent with Acoustical Study Guidelines (Table NE-4) for proposed developments in areas where the existing or future noise level exceeds or would exceed the "compatible" noise level thresholds as indicated on the Land Use - Noise Compatibility Guidelines (Table NE-3 [reproduced in this environmental impact report as Table 3.11-4]), so that noise mitigation measures can be included in the project design to meet the noise guidelines.
- **NE-A.5.** Prepare noise studies to address existing and future noise levels from noise sources that are specific to a community when updating community plans.

3.11.3 Significance Criteria

The significance criteria used to evaluate the project impacts related to noise are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to noise would occur if the project would:

1. Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
2. Result in generation of excessive groundborne vibration or groundborne noise levels.
3. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

In light of these above significance criteria, this analysis uses the following standards to evaluate potential noise and vibration impacts.

- **Construction noise –** For purposes of this assessment, SDSU has adopted the City's construction noise threshold of not exceeding 75 dBA for a 12-hour period, between 7:00 a.m. and 7:00 p.m., when received at any property zoned as residential.
- **Off-site project-attributed transportation noise –** For purposes for this analysis, a direct roadway noise impact would be considered significant if increases in roadway traffic noise levels attributed to the proposed project were greater than 3 dBA CNEL at an existing noise-sensitive land use. An increase or decrease in noise level of at least 3 dB is required before any noticeable change in community response would be expected (Caltrans 2013).
- **Construction vibration –** Guidance from Caltrans indicates that a vibration velocity level of 0.2 ips PPV received at a structure would be considered annoying by occupants within (Caltrans 2020). As for the receiving structure itself, Caltrans guidance recommends a vibration level of 0.3 ips PPV as the threshold

for building damage risk of older residential structures exposed to continuous or frequently intermittent sources of groundborne vibration.

3.11.4 Impacts Analysis

Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Short-Term Construction Noise

Construction noise and vibration are temporary phenomena, varying from hour to hour and day to day, depending on the equipment in use, the operations performed, and the distance between the source and receptor. Equipment that would be in use during construction would include, in part, graders, scrapers, backhoes, rubber-tired dozers, loaders, cranes, forklifts, cement mixers, pavers, rollers, and air compressors. The typical maximum noise levels for various pieces of construction equipment at a distance of 50 feet are presented in Table 3.11-5. Usually, construction equipment operates in alternating cycles of full power and low power, which the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) User's Guide (FHWA 2006) characterizes as "acoustical usage factor" (AUF) and thereby produces energy-average noise levels over time (L_{eq}) that are less than the listed maximum noise level (L_{max}). The average sound level of construction activity also depends on the amount of time that the equipment actually operates onsite.

Table 3.11-5. Typical Construction Equipment Maximum Noise Levels

FHWA RCNM Equipment Type	Acoustical Usage Factor (%)	Typical Equipment L_{max} (dBA at 50 Feet)	Typical Equipment L_{eq} (dBA at 50 Feet)
all other equipment > 5 HP	50	85	82
backhoe	40	78	74
compressor (air)	40	78	74
concrete mixer truck	40	79	75
crane	16	81	73
dozer	40	82	78
generator	50	72	69
grader	40	85	81
man lift	20	75	68
paver	50	77	74
roller	20	80	73
scraper	40	84	80
welder/torch	40	73	69

Source: FHWA 2006.
Note: L_{max} = maximum sound level; where L_{eq} = energy-equivalent sound level and can be calculated here with L_{eq} = L_{max} + 10*LOG(AUF); dBA = A-weighted decibels.

As described in Chapter 2, Project Description, the project would involve construction of a vehicular and bicycle/pedestrian bridge spanning the San Diego River from north to south, connecting Fenton Parkway and Camino Del Rio North. In addition to bridge infrastructure, construction would also include roadway expansion and other offsite improvements.

For the purposes of this analysis, two potential construction methods were evaluated: Cast-in-Place (CIP) and Pre-Cast. Conceptual schedules were developed based on available information provided by the project engineers, typical construction practices, and CalEEMod default assumptions. Construction phasing is intended to represent a schedule of anticipated activities for use in estimating potential project-generated construction emissions.

Cast-in-Place Construction Method Analysis

The project was assumed to require the following construction phases, with likely overlaps provided by project engineers (durations are approximate):

- ESA Fencing, Clearing, Grubbing, and Mobilization: 3 weeks
- CIDH Piles (Pier 2,3): 4 weeks
- Ground Improvements (Abut 1): 3 weeks
- Column Form, Rebar, Pour (Pier 2,3): 4 weeks
- Embankment Grading (Abut 1): 1 week
- Excavation (Abut 1): 1 week
- Ground Improvements (Abut 4): 3 weeks
- Embankment Grading (Abut 4): 1 week
- Excavation (Abut 4): 1 week
- CIDH Piles (Abut 1, 4): 9 weeks
- Form, Rebar, Pour (Abut 1 & 4, Footing, Stem, Walls): 13 weeks
- Erect Falsework: 8 weeks
- Form, Rebar, Pour (Soffit, Stems, Deck): 23 weeks
- Cure Deck, Stress Bridge, Strip Falsework: 7 weeks
- Riprap (Abut 1 & 5): 4 weeks
- Sidewalk Barrier Installation and Deck Grind: 3 weeks

Cast-in-Place Off-site Improvements

- Grubbing and Land Clearing: 1 week
- Grading and Excavation: 2.5 weeks
- Drainage, Utilities, and Sub-Grade: 2 weeks
- Paving: 1 week
- Architectural Coating: 1 week

Table 3.11-6. Cast-in-Place Method Construction Schedule and Equipment

Phase	Start	End	Total Work Days	Equipment Type	Qty	hrs/day
General Construction	1/1/2025	2/25/2026	301	Aerial Lift	1	8
				Air Compressors	1	8
				Cranes	1	8
				Forklifts	1	8
				Generator Sets	4	8
				Welders	1	8
ESA Fencing; Clear & Grub; Mobilization	1/1/2025	1/22/2025	16	Excavators	1	8
				Graders	1	8
				Loader	1	8
				Bulldozer	1	8
				Scrapers	1	8
				Chipper	1	8
CIDH Piles -(Pier 2, 3)	1/22/2025	2/19/2025	21	Bore/Drill Rig	1	8
				Cranes	1	8
				Rubber Tired Loaders	1	8
				Generator Sets	3	8
Ground Improvement -Abut 1	1/22/2025	2/12/2025	16	Cranes	1	10
				Drill Rig	1	10
				Generator/Powerpack	1	10
				Air compressor	1	10
				Telehandler	1	10
				Loader	1	10
Column Form, Rebar, Pour (Pier 2, 3)	2/12/2025	3/12/2025	21	Cranes	1	8
Embankment Grading (Abut 1)	2/12/2025	2/19/2025	6	Excavators	1	8
				Rubber Tired Dozers	1	8
				Rubber Tired Loaders	1	8
				Rollers	1	8
Excavation -Abut 1	2/19/2025	2/26/2025	6	Excavators	1	8
				Rubber Tired Loaders	1	8
Ground Improvement	2/19/2025	3/12/2025	16	Cranes	1	10
				Drill Rig	1	10

Table 3.11-6. Cast-in-Place Method Construction Schedule and Equipment

Phase	Start	End	Total Work Days	Equipment Type	Qty	hrs/day
Abut 4				Generator/Powerpack	1	10
				Air compressor	1	10
				Telehandler	1	10
				Loader	1	10
Embankment Grading (Abut 4)	3/12/2025	3/19/2025	6	Excavators	1	8
				Bulldozer	1	8
				Rubber Tired Loaders	1	8
				Roller compactor	1	8
Excavation Abut 4	3/19/2025	3/26/2025	6	Excavators	1	8
				Rubber Tired Loaders	1	8
CIDH Piles (Abuts 1, 4)	2/26/2025	4/30/2025	46	Bore/Drill Rig	1	8
				Cranes	1	8
				Rubber Tired Loaders	1	8
				Generator Sets	3	8
Form, Rebar, Pour (Abut 1 & 4 Ftg, Stem, Walls)	4/2/2025	7/2/2025	66	Track-mounted crane	1	8
Erect Falsework	5/28/2025	7/23/2025	41	Track-mounted crane	1	8
Form, Rebar, Pour (Soffit, Stems & deck)	6/18/2025	11/26/2025	116	Track-mounted crane	1	8
Cure Deck, Stress Bridge, Strip Falsework	11/26/2025	1/14/2026	36	Cranes	1	8
Riprap (Abut 1 & 4)	12/31/2025	1/28/2026	21	Excavators	1	8
				Rubber Tired Loaders	1	8
Sidewalk Barrier Install, Deck Grind	1/14/2026	2/4/2026	16	Cranes	1	8
Offsite Improvements-Linear, Grubbing & Land Clearing	2/7/2026	2/10/2026	3	Crawler Tractors	1	8
				Excavators	1	8
	2/11/2026	2/23/2026	12	Excavators	3	8

Table 3.11-6. Cast-in-Place Method Construction Schedule and Equipment

Phase	Start	End	Total Work Days	Equipment Type	Qty	hrs/day
Offsite Improvements-Linear, Grading & Excavation				Graders	1	8
				Crawler Tractors	1	8
				Rollers	2	8
				Rubber Tired Loaders	1	8
				Scrapers	2	8
				Tractors/Loaders/Backhoes	2	8
Offsite Improvements-Linear, Drainage, Utilities, & Sub-Grade	2/24/2026	3/7/2026	11	Signal Boards	0	8
				Tractors/Loaders/Backhoes	2	8
				Scrapers	2	8
				Rough Terrain Forklifts	1	8
				Plate Compactors	1	8
				Pumps	1	8
				Air Compressors	1	8
				Graders	1	8
				Generator Sets	1	8
Offsite Improvements-Linear, Paving	3/8/2026	3/13/2026	5	Rollers	3	8
				Pavers	1	8
				Paving Equipment	1	8
				Signal Boards	0	8
				Tractors/Loaders/Backhoes	2	8
Offsite Improvements-Architectural Coating	3/14/2026	3/19/2026	5	Air Compressors	1	6

Using the provided construction information, prediction results are summarized in Table 3.11-6 at the nearest noise-sensitive receptor (the multifamily residences to the north of the project site) for two calculation scenarios, as follows:

- Usage of the shortest activity-to-receptor distance for the loudest equipment type and largest quantity associated with the studied construction phase, with a sample of each of the less noisy equipment types further from the receptor at successively more distant increments of 50 feet

An "acoustic centroid" approach, akin to the FTA general assessment technique for estimating construction noise, whereby all listed equipment for a construction phase is represented by a common location at the geographic center of the studied construction zone or area.

The first of these methods is considered a conservative approach to assess what might be characterized as a peak exposure level, applicable to not more than approximately 10%–15% of the total construction period and when the studied construction activity is taking place with loudest equipment along the property boundary closest to these nearest off-site receivers. The second approach utilizes the acoustic centroid technique to represent a time-averaged location for the phase equipment and activity, thereby yielding average noise levels to represent overall noise exposure as experienced for adjacent receivers over the duration of each construction phase.

A Microsoft Excel–based noise prediction model emulating and using reference data from the Federal Highway Administration Roadway Construction Noise Model (FHWA 2008) was used to estimate construction noise levels. Input variables for the predictive modeling consist of the equipment type and number of each type, the acoustical usage factor, the expected duration (in hours) of on-site activity, the distance from the receiver, and the construction schedule for the consideration of concurrent construction activities. Conservatively, no topographical or structural shielding was assumed in the modeling.

Appendix H displays the construction noise model worksheets for each of these analysis approaches. Although the quantities and types of equipment per construction phase are the same in each of the two approaches, there are differences in source-to-receptor distance variables. Table 3.11-7 shows the cumulative monthly prediction results of both scenarios for the CIP method with the construction schedule taken into consideration.

Table 3.11-7. Predicted Construction Noise Levels per Construction Month, Cast-in-Place Construction Method

	Closest Distance to Nearest Noise Sensitive Receptor	Acoustic Center to Nearest Noise Sensitive Receptor
Construction Month	Cumulative 12-hour Leq, dBA	Cumulative 12-hour Leq, dBA
January 2025	73	56
February 2025	75	60
March 2025	76	61
April 2025	68	53
May 2025	68	53
June 2025	68	54
July 2025	68	54
August 2025	66	53
September 2025	66	53

Table 3.11-7. Predicted Construction Noise Levels per Construction Month, Cast-in-Place Construction Method

Construction Month	Closest Distance to Nearest Noise Sensitive Receptor Cumulative 12-hour Leq, dBA	Acoustic Center to Nearest Noise Sensitive Receptor Cumulative 12-hour Leq, dBA
October 2025	66	53
November 2025	69	55
December 2025	69	55
January 2026	71	55
February 2026	69	54
March 2026	61	51

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 3.11-7, the estimated construction noise exposure levels are predicted to exceed 75 dBA L_{eq} over a 12-hour period due to six concurrent construction phases occurring adjacent to the nearest residential receptors during the month of March 2025. The predicted aggregate construction noise levels by month range from 66 to 76 dBA L_{eq} over a 12hour period at the nearest residential receptors. Therefore, prior to implementation of mitigation, impacts would be **potentially significant**.

Pre-Cast Construction Method Analysis

The pre-cast construction method was assumed to require the following construction phases, with likely overlaps provided by project engineers (durations are approximate):

- Environmentally Sensitive Areas (ESA) Fencing, Clearing, Grubbing, and Mobilization: 3 weeks
- Cast-In-Drilled-Hole (CIDH) Piles (Pier 2,3,4): 4 weeks
- Ground Improvements (Abut 1): 3 weeks
- Column Form, Rebar, Pour (Pier 2,3,4): 6 weeks
- Embankment Grading (Abut 1): 1 week
- Excavation (Abut 1): 1 week
- Ground Improvements (Abut 5): 3 weeks
- Cap Falsework (Pier 2,3,4): 6 weeks
- Cap Form, Rebar, Pour (Pier 2,3,4): 7 weeks
- Embankment Grading (Abut 5): 1 week
- Excavation (Abut 5): 1 week
- Form, Rebar, Pour (Abut 1 & 5, Stem, Walls, Diaphragms & Deck): 22 weeks
- Erect Precast Girders: 1 week
- Cure Deck, Strip Overhangs: 2 weeks
- Riprap (Abut 1 & 5): 4 weeks
- Sidewalk Barrier Installation and Deck Grind: 3 weeks

Pre-Cast Off-site Improvements

- Grubbing and Land Clearing: 1 week
- Grading and Excavation: 2.5 weeks
- Drainage, Utilities, and Sub-Grade: 2 weeks
- Paving: 1 week
- Architectural Coating: 1 week

Due to the similarity between construction phases for both construction methods, equipment roster during those phases, and expected construction schedule for the construction phases, pre-cast construction noise levels are expected to be similar to the previously provided CIP predicted construction noise levels. As a result, prior to implementation of mitigation, impacts would be potentially significant.

MSCP Avian Breeding Construction Noise Analysis

Noise generated during project construction, pre-cast or cast-in-place construction method, would be directly adjacent to MSCP Multi-Habitat Planning Areas (MHPA) and would thus expose sensitive avian species to temporary construction noise levels greater than the City threshold of 60 dBA for over the construction period. Mitigation Measure MM-BIO-15 shall be incorporated into the project to help protect sensitive avian species from excessive exposure to temporary construction noise.

MM-BIO-15 Short-Term Noise Pre-construction biological and noise surveys shall be conducted for any work between February 1 and September 15. Between 3 and 7 days prior to start of construction activities, a qualified biologist with experience in identifying least Bell's vireo (Vireo bellii pusillus), southwestern willow flycatcher (Empidonax traillii extimus), and coastal California gnatcatcher (Polioptila californica californica) shall conduct a pre-construction survey for the least Bell's vireo, coastal California gnatcatcher, and, if needed, southwestern willow flycatcher to document presence/absence and the extent of habitat being occupied by the species. The pre-construction survey area for these species shall encompass all suitable habitats within the impact area, as well as suitable habitat within a 500foot buffer of the construction activities. If active nests for any of these species are detected, a qualified biologist will conduct sound monitoring near the observed nesting position(s) to sample the pre-construction outdoor ambient noise level and document any signs of disturbance prior to construction activities. Nest locations, their horizontal distances to planned construction activities, and the measured outdoor ambient noise levels shall be provided to a qualified acoustician, who shall recommend where implementation of practical noise reduction technique(s) would yield predicted construction noise exposure at the nest location not greater than the allowable threshold of 60 dBA Leq or ambient noise level, whichever is higher. To the extent feasible, on-site noise reduction techniques shall be implemented prior to construction activity to minimize construction noise levels and meet this Leq threshold at the nest location(s). During construction activity, a qualified biologist shall monitor the observed nest locations and document any signs of disturbance, which would trigger further implementation of noise reduction techniques or alternatives that may include utilization of quieter equipment, adherence to equipment maintenance schedules, shifting construction phase timelines so that they occur outside of the breeding season, installation of temporary sound barriers, or shifting construction work further from the nest.

1. **Team:** This citation is not in the references list. Please add.
2. **Reporting:** The biologist shall submit a report to the City of San Diego documenting the methods and results of the surveys prior to clearing/grubbing activities. Additionally, a monitoring report will be prepared and submitted to the City of San Diego after the construction activities are completed.

While all feasible actions will be taken to minimize potential noise impacts, and with implementation of MM-BIO-15, if nests are present within the buffer, **significant and unavoidable** impacts associated with construction-related noise may occur.

Long-Term Off-Site Traffic Noise

According to acoustical principles, the project would have to roughly double the traffic volumes on nearby studied roadway segments in order to increase traffic by 3 dBA, which would be considered a barely perceptible increase (Caltrans 2013).

The proposed project would result in the creation of additional vehicle trips on local roadways (i.e., Fenton Parkway, Mission City Parkway, and Camino Del Rio North), which could result in increased traffic noise levels at adjacent noise-sensitive land uses. Using information provided by the project traffic engineer (Scher, pers. comm., 2023), an emulator based on the Federal Highway Administration's Highway Traffic Noise Prediction Model RD-77-108 was used to estimate potential noise impacts at adjacent noise-sensitive uses. Information used in the model included posted traffic speeds, truck mix percentage, and average daily traffic volumes (expressed as vehicles per hour) for the existing (2023), near-term year 2035 with and without project, and horizon year 2050 with and without project conditions.

Consistent with Caltrans guidance (Caltrans 2013), this analysis assumes 80% of the average daily traffic occurs during daytime hours (7:00 a.m. to 7:00 p.m.), 5% during the evening (7:00 p.m. to 10:00 p.m.), and 15% during the nighttime (10:00 p.m. to 7:00 a.m.). The truck percentages used in the noise model were 2.0% medium trucks and 1.0% heavy trucks—the same proportion applied in the modeling of traffic noise for the SDSU Mission Valley Campus Master Plan Environmental Impact Report. The k-factor used to convert the average daily traffic volumes to peak hour volumes was 10%. Appendix H contains the input data and results of the traffic noise modeling effort. The traffic noise model results are summarized in Table 3.11-8 and represented by CNEL values.

Table 3.11-8. Off-Site Roadway Traffic Noise Modeling Results

Roadway Segment	From	To	Existing (2023) Noise Level	Near-Term (2035) Without Project	Near-Term (2035) With Project	Project-Related Near-Term (2035) Noise Level Increase	Horizon (2050) Without Project	Horizon (2050) With Project	Project-Related Horizon (2050) Noise Level Increase
			CNEL	CNEL	CNEL	dB	CNEL	CNEL	dB
Fenton Parkway	Rio San Diego	Bridge	57.6	60.7	62.9	2.2	60.4	62.6	2.2
Fenton Parkway Bridge	Bridge	Camino Del Rio North	N/A	N/A	66.4	N/A	N/A	66.1	N/A

Table 3.11-8. Off-Site Roadway Traffic Noise Modeling Results

Roadway Segment	From	To	Existing (2023) Noise Level	Near-Term (2035) Without Project	Near-Term (2035) With Project	Project-Related Near-Term (2035) Noise Level Increase	Horizon (2050) Without Project	Horizon (2050) With Project	Project-Related Horizon (2050) Noise Level Increase
			CNEL	CNEL	CNEL	dB	CNEL	CNEL	dB
Mission City Parkway	Camino Del Rio North	Camino Del Rio South	62.0	62.7	65.3	2.6	62.4	64.9	2.6
Camino Del Rio North	Qualcomm Way	Mission City Parkway	65.4	65.7	65.2	−0.5	65.4	64.9	−0.5
Camino Del Rio North	Mission City Parkway	Rancho Mission Road	64.2	65.8	66.2	0.3	65.5	65.8	0.3

Notes: CNEL = Community Noise Equivalent Level; dB = decibel; N/A = not applicable.

Table 3.11-8 shows that at roadways surrounding the project, the addition of proposed project traffic to the local roadway network would result in a CNEL increase of less than 3 dB, which is below the discernible level of change for the average healthy human ear. Thus, a **less-than-significant** impact is expected for proposed project-related off-site traffic noise increases affecting existing residences and other land uses in the vicinity.

Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Pre-Cast and Cast-in-Place Construction and Operational Vibration

Section 3.11.1 provides the groundborne vibration propagation expression for estimating vibration velocity (in ips PPV) level at a receiving off-site structure. Although ignored for purposes of conservatism in this analysis, FTA guidance information suggests that combining losses between the vibrating soil mass and that of a receiving building foundation (e.g., the multi-story residences to the north) might reduce the estimated PPV value by 3 VdB (FTA 2018).

The main concern associated with ground-borne vibration is annoyance; however, in extreme cases, vibration can cause damage to buildings, particularly those that are old or otherwise fragile. Some common sources of ground-borne vibration are trains and construction activities such as blasting, pile-driving, and heavy earth-moving equipment. The primary source of ground-borne vibration occurring as part of the project would be construction activity.

According to Caltrans, D-8 and D-9 Caterpillars, earthmovers, and trucks such as those expected to be used during project construction do not exceed 0.10 ips PPV at 10 feet (Caltrans 2020). Since the closest off-site residence is located approximately 90 feet away from likely heavy construction equipment, vibration from construction activities at the closest sensitive receiver would not exceed the significance threshold of 0.20 ips PPV.

Operationally, vibration from the newly constructed bridge would be attributed to vehicle traffic on its deck. However, as stated in FTA guidance: "If the roadway is fairly smooth, the vibration from rubber-tired traffic is rarely perceptible" and "buses and trucks rarely create vibration that exceeds 70 VdB unless there are bumps due to frequent potholes in the road" (FTA 2018). Due to this low vibration quantity (70 VdB translates to 0.013 ips PPV), the distance of the bridge deck to nearest off-site receptors, and the bridge design (a span above grade, which will limit groundborne transmission of vibration), operational vibration impacts due to the project would not exceed 0.02 ips PPV and therefore would be **less than significant**.

For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Pre-Cast and Cast-in-Place Construction Methods

The San Diego International Airport is approximately 10 miles from the project site. The project site is outside of the 60 dB CNEL contour shown in the San Diego International Airport Land Use Compatibility Plan (SDCRAA 2014). Montgomery-Gibbs Executive Airport is less than 3 miles north of the project site, but its 60 dB CNEL aviation noise contour is similarly beyond the project site. Therefore, construction workers in the project area or pedestrians/cyclists using the bridge would not be subjected to excessive noise levels. **No impacts** would result.

3.11.5 Cumulative Impacts

Would the project result in cumulative noise impacts?

Noise levels tend to diminish quickly with distance from a source. Therefore, the geographic scope of the analysis of cumulative impacts related to noise is limited to locations immediately surrounding and in close proximity to the project site. The closest cumulative projects are the Mission Valley Campus Master Plan Project and the Stadium Wetlands Mitigation Project, which are located on-site.

The Mission Valley Campus Master Plan Project determined that noise impacts would be significant and unavoidable even after implementation of all feasible mitigation measures. The Stadium Wetlands Mitigation Project is a restoration and enhancement project and would not generate substantial sources of noise that could be cumulatively considerable.

As stated above, prior to implementation of mitigation temporary construction noise impacts from both construction methods would be potentially significant. In addition, temporary construction noise impacts to nesting birds would be significant and unavoidable even with implementation of mitigation. However, since noise impacts are generally limited to locations immediately surrounding a project site, and due to the distance between cumulative projects and the proposed project, the potential for cumulative noise or vibration impacts to occur is unlikely.

The cumulative context for the traffic noise is the traffic volume increases on roadways within the project's vicinity as a result of implementation of the proposed project. However, the project traffic analysis considered the creation of additional vehicle trips on local roadways (i.e., Fenton Parkway, Mission City Parkway, and Camino Del Rio North), which could result in increased traffic noise levels at adjacent noise-sensitive land uses; however, this impact was found to be less than significant. Additionally, construction and operational vibration were also determined to be less than significant.

Overall, the short-term and long-term increase in noise associated with the proposed project would not be cumulatively considerable. Additionally, all cumulative projects would be required to analyze potential noise impacts associated with construction and operation and would have to comply with the City's Noise Control Ordinance and limit construction activities to the allowable hours. Overall, cumulative noise impacts would be **less than significant**.

3.11.6 Summary of Impacts Prior to Mitigation

As demonstrated above, impacts related to temporary construction noise would be **potentially significant**.

3.11.7 Mitigation Measures

The following mitigation measure would be implemented prior to the start of construction in order to reduce potential temporary construction noise impacts to nearby multi-family residences.

MM-NOI-1 Noise Barrier for Multi-Family Receptors. The applicant and/or project contractor shall implement the following measures before the start of construction activities:

- All construction equipment must be in good working order and have functional sound mufflers to attenuate exhaust noise, which shall be properly maintained and used whenever such equipment is in operation.
- To the extent practical given site constraints, the project contractor shall orient/operate stationary construction equipment (i.e. construction equipment that is not mobile in nature and propelled by a built-in motor, such as generators, light stands, and pumps) so that emitted noise is directed away from sensitive receptors nearest the project site.
- The construction contractor shall locate on-site equipment staging areas to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site during the construction period.
- All noise-producing construction activities, including warming up or servicing equipment and any preparation for construction, shall not exceed the nighttime noise level thresholds as stated in the City's ordinance between the hours of 7:00 p.m. and 7:00 a.m.
- An eight (8) foot tall temporary plywood noise barrier shall be erected along the northern project site property line where the project boundary is adjacent to the noise sensitive receptor (multi-family development to the north of the project site).
    - The materials used for temporary barrier shall be sufficient to last through the duration of construction of the project, and shall be maintained in good repair.
    - The acoustical material or composite material assembly used shall be weather and abuse-resistant.
    - The eight-foot-tall temporary solid noise barrier shall be constructed of 3/4-inch Medium Density Overlay (MDO) plywood sheeting, or other material of equivalent utility and appearance having a surface weight of 2 pounds per square foot or greater.
    - Barrier panels shall be attached to support frames to withstand, via ground anchoring methods such as rigid attachment or weighted loading (e.g., sandbags), anticipated onsite wind loads plus a 30 percent gust factor.

- The temporary acoustical barrier material shall be installed in vertical and horizontal segments with the vertical segments extending the full enclosure height.
- The acoustical material shall have a Sound Transmission Class (STC) of STC-20 or greater, based on certified sound transmission loss (TL) data taken according to American Society of Testing and Materials (ASTM) Test Method E90 and exhibited by the material supplier. When including sound-absorptive media as an assembly feature, the Noise Reduction Coefficient (NRC) rating shall be 0.6 or greater, based on certified sound absorption coefficient data taken according to ASTM Test Method C423 and exhibited by the material supplier.
- A temporary flexible acoustical barrier may also be used in lieu of or in combination with a temporary solid noise barrier. The flexible acoustical barrier (a.k.a., "blanket", "curtain", or "partial enclosure") shall consist of durable, flexible single or composite material featuring a noise barrier layer optionally bonded to sound-absorptive material on the side intended to face the noise-producing equipment or activity of concern. This type of flexible acoustical barrier can be hung from a support structure.
- Prefabricated acoustic barriers are available from various vendors. An equivalent barrier design can be submitted instead of the plywood barrier described above provided that the noise reduction performance of the equivalent design is substantiated as being equivalent or superior.

3.11.8 Level of Significance After Mitigation

With the application of MM-NOI-1 during project construction, the noise level can be reduced to below the construction noise threshold. MM-NOI-1 would include implementation of temporary noise barriers, pro-active public relations such as clear and abundant notices or alerts of potentially noisy construction activity well in advance of actual work periods, community engagement to inform potentially affected project vicinities of the local benefits of efforts to modernize its infrastructure, and special consideration for selected receptors that may be closest to project activities or otherwise at risk of greatest adverse effects (with respect to noise and other topics, such as traffic interruption).

As shown in Table 3.11-9, an 8-foot-tall temporary noise barrier was modeled, and noise levels at the nearest receiver were predicted to be below the 75 dBA threshold. As a result of the erection of these temporary noise barriers and as shown in greater detail in Appendix H, concurrent phase noise levels were also predicted to be below the 75 dBA threshold. The rightmost column in Table 3.11-9 presents the anticipated reduction ("delta" or decibel difference) in noise exposure level attributed to temporary barrier installation.

Table 3.11-9. Predicted Construction Noise Levels per Construction Month with 8-Foot Barrier, Cast-in-Place or Pre-Cast Construction Method

Construction Month	Predicted Construction Noise Exposure Levels and Delta at Nearest NSR		
	Cumulative 12-hour Leq, dBA - Without Barrier	Cumulative 12-hour Leq, dBA - With 8' Barrier	Delta (difference between with and without barrier)
January 2025	73	63	10
February 2025	75	68	7

Table 3.11-9. Predicted Construction Noise Levels per Construction Month with 8-Foot Barrier, Cast-in-Place or Pre-Cast Construction Method

Construction Month	Predicted Construction Noise Exposure Levels and Delta at Nearest NSR		
	Cumulative 12-hour Leq, dBA - Without Barrier	Cumulative 12-hour Leq, dBA - With 8' Barrier	Delta (difference between with and without barrier)
March 2025	76	69	7
April 2025	68	60	8
May 2025	68	62	6
June 2025	68	62	6
July 2025	68	62	6
August 2025	66	60	6
September 2025	66	60	6
October 2025	66	60	6
November 2025	69	63	6
December 2025	69	62	7
January 2026	71	63	8
February 2026	69	62	7
March 2026	61	58	3

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels; NSR = noise-sensitive receptor.

Therefore, with proper application of MM-NOI-1, specifically 8-foot-tall temporary barriers located as close to the construction equipment as possible when construction noise from multiple concurrent project construction phases (during pre-cast or cast-in-place construction methods) are expected to exceed the City's limit of 75 dBA 12-hour L_{eq} (March 2025 or the actual month on which the concurrent phases would occur, if different) temporary construction-related noise impacts at nearby residential receptors would be considered **less than significant**.

However, as stated above due to the potential temporary construction noise impacts on nesting birds even with implementation of MM-BIO-15, impacts would be **significant and unavoidable**.

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SOURCE: Google 2023; Dudek 2023

DUDEK

0 198 396 Feet

FIGURE 3.11-1

Outdoor Ambient Sound Level Survey Locations

Fenton Parkway Bridge Project EIR

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3.12 Recreational Resources

This section describes the existing recreational resources within the project site and vicinity, identifies associated regulatory requirements, and evaluates potential impacts related to implementation of the proposed Fenton Parkway Bridge Project (project).

A notice of preparation was circulated from May 22, 2023, to June 20, 2023. A total of 16 letters were received during this comment period. Comments related to recreational resources included a single comment regarding the San Diego River Park. Please see Appendix A, NOP and Scoping Comments, for a complete compilation of comments received in response to the notice of preparation.

3.12.1 Existing Conditions

Local and Regional Parks

The City of San Diego (City) Parks and Recreation Department is responsible for operation and maintenance of approximately 40,000 acres of developed and undeveloped parkland and open space within the City (City of San Diego 2015a). Development of public park space within the City is governed by the population-based park and recreation facilities guidelines provided in the Recreation Element of the City of San Diego General Plan (General Plan). The guidelines associated with the development of population-based parks "provide a means to measure the degree to which park and recreational facilities are developed and to equitably provide facilities throughout the City" (City of San Diego 2015a).

Table 3.12-1 identifies the nearest parks and recreation facilities to the project site, the size of each facility, and the distance from the project site.

Table 3.12-1. Local and Regional Parks

Park	Acres	Driving Distance from Project Site
SDSU Mission Valley River Park	34	<0.1 miles
San Diego River Garden	16.13	2.4 miles
Serra Mesa/Ruffin Canyon Open Space	84	2.3 miles
North Mountain View Mini-Park	0.04	3.5 miles
Kenmore Terrace Mini-Park	0.15	3.1 miles
Normal Heights Open Space Park	19.65	4.2 miles
Grantville Neighborhood Park	3.12	2.8 miles
Adams Recreation Center	2	3.7 miles
McKinley Elementary Joint Use Park	2.52	6.0 miles
Murray Ridge Park	13.55	3.1 miles
Normal Heights Elementary School Joint Use Park	1.1	3.8 miles
Civita Park	14.3	1.6 miles
Old Trolley Barn Neighborhood Park	2.9	2.4 miles
Garfield Elementary School Joint Use	0.71	1.41 miles
Mission Trails Regional Park	7,220	5.03 miles

Source: City of San Diego 2019a.

Mission Valley Community Plan Area Parks

The project site is located within the Mission Valley Community Plan area. Four parks with notable natural or human-made features are located within or near the Mission Valley Community Plan area. These include Presidio Community Park, located in Old San Diego at the western end of Mission Valley, 4.27 miles west of the project site; Sefton Field, located 3.9 miles west of the site; Town and Country Park, located 2.55 miles west of the project site; and Civita Park, located 1.21 miles west of the site. There are over 125 acres of planned and joint use parks within the Mission Valley Community Plan area (City of San Diego 2019b). The SDSU Mission Valley River Park, which opened in December 2023, is northeast of the project site and is included and designated as "Stadium Park" in the Mission Valley Community Plan Update.

Project Site

The project site includes a portion of San Diego River basin, as well as areas south of Fenton Parkway and the Fenton Marketplace and north of the Camino Del Rio North and Mission City Parkway intersection. Existing recreational facilities on site include the SDSU Mission Valley River Park located northeast of the project site. The River Park includes a 34-acre stretch of land that extends along the San Diego River to the north, containing large swathes of grass that serve as sports fields, bike and walking paths, and recreational facilities like basketball courts, children's playground and fitness equipment. A portion of this space may be used as temporary construction staging for the proposed project.

Other nearby recreational uses include San Diego State University's Snapdragon Stadium, which hosts a variety of sporting and recreational events, including San Diego State University football games, soccer games, and concerts.

3.12.2 Relevant Plans, Policies, and Ordinances

Federal

No federal plans, policies, or ordinances regarding recreation are relevant to the proposed project.

State

No state plans, policies, or ordinances regarding recreation are relevant to the proposed project.

Local

As a state agency, the California State University (CSU) is sovereign and is not subject to local land use regulatory/planning documents, ordinances, regulations, policies, rules, fees, or exactions such as those described in this section. However, CSU is willing to purchase the project site pursuant to the framework set forth in Section 22.0908, which will be negotiated and memorialized in a future Purchase and Sale Agreement, in order to implement the overriding purpose of the proposed project. In addition, CSU will evaluate the proposed project's consistency with adopted, applicable state and federal regulatory/planning documents, and, though not required by law, CSU also will consider the proposed project's consistency with adopted, applicable local regulatory/ planning documents.

City of San Diego Charter Section 55

The City adopted its Policy on Dedication and Designation of Park Lands in August 1985 to establish a policy for the protection of parklands by dedication or designation. The Policy on Dedication and Designation of Park Lands is included in Section 55 of the City Charter and allows all land acquired for open space park purposes and owned in fee by the City to be dedicated by ordinance, if it meets the following conditions:

A. The land either fits the criteria of resource-based parks, in that it is the site of distinctive scenic or natural or cultural features, and is intended for City-wide use; is a complete open space system or sub-system; or at a minimum is a portion of a sub-system sufficient to stand on its own. (Isolated properties designated as open space shall be dedicated only upon the City's obtaining sufficient additional adjacent land to meet this requirement.)
B. The land does not include areas which are undesirable for park purposes, would be more suitable for other purposes, or which could be traded or sold to obtain more desirable park lands or to fund park improvements. In these cases, to provide flexibility in making revisions which would be beneficial to meeting the City's open space goals, the land shall not be dedicated.
C. The deed to the property is free of restrictions which might preclude dedication as park land.

City of San Diego General Plan Recreation Element

The Recreation Element of the City's General Plan contains policies to address the City's challenges to meet the public's park and recreational needs as resident and visitor populations grow and the availability of vacant land decreases, including the following (City of San Diego 2021):

- RE-A.8. Provide population-based parks at a minimum ratio of 2.8 usable acres per 1,000 residents (see also Table RE-2, Parks Guidelines).
  a. All park types within the Population-based Park Category could satisfy population-based park requirements.
  b. The allowable number of useable acres exceeding two percent grade at any given park site would be determined on a case-by-case basis by the City.
  c. Include military family housing populations when calculating population-based park requirements.
  d. Ensure that parks are located adjacent to a public right-of-way.
  e. All parks to be designed and constructed consistent with the "Consultant's Guide to Park Design & Development."

- RE-A.15. Ensure that adequate funding is identified in public facilities financing plans for the acquisition and development of sufficient land necessary to achieve a minimum ratio of 2.8 useable acres per 1,000 residents or appropriate equivalencies, including any unmet existing/future needs.
- RE-A.17. Ensure that all development impact fees and assessments collected for the acquisition and development of population-based parks and recreation facilities be used for appropriate purposes in a timely manner.
- RE-A.18. Pursue joint use agreements for recreational facilities on other public agency-owned land to help implement the population-based park acreage requirements if they meet the criteria for equivalencies.

City of San Diego Council Policy 600-33

San Diego City Council Policy 600-33 is intended to establish guidelines to assure the public has advanced notification and opportunity to participate in the input process of park projects. This Council Policy generally applies to entities performing proposed improvements to the City's park facilities.

Mission Valley Community Plan

The Mission Valley Community Plan, which serves as a blueprint for the future development of the neighborhood, was adopted by the City Council in 1984; and last amended in 2013. The Final Draft of the Mission Valley Community Plan Update, as well as the Final Program EIR, was released on May 31, 2019 (City of San Diego 2019b, 2019c). The Mission Valley Community Plan Update includes various implementation actions and policies for development that relate to parks and recreation, including the following:

Implementation Actions

Park Development

IA-54 Mobility. Enhance existing park and recreation facilities in Mission Valley by optimizing pedestrian, bicycle, public transit, automobile, and alternative modes of travel.

Policies for Development

Park Development, Improvements, and Expansions

Policy PDI-1. Development should locate public parks on-site where feasible.

Policy PDI-3. Any portion of a private development proposed to satisfy its population-based park requirements should:

- Not restrict or limit the use of the park or facility to any person because of race, religion, or creed, or limit availability of the park or facility for the use of the general public.
- Be permanent. This would mean that the project has an estimated useful life equivalent to that of similar installations on City-owned and developed parks.

Public Open Space on Private Development

Policy POD-1. Calculate park acreage based on "usable acres" as defined in the General Plan Glossary.

Area-Specific: San Diego River

Policy SDR-1. All development within the River Corridor Area and the River Influence Area should be consistent with the Land Use Development Code, Chapter 14, Article 3, Division 1, Special Flood Hazard Areas; Chapter 14, Article 3, Division 1, Environmentally Sensitive Lands; and the San Diego River Park Master Plan.

Policy SDR-2. Trail entrances should be highly visible from the street and surrounding development, with recognizable and unified design elements at trail entrances, including landscaping, pedestrian-oriented amenities (e.g., drinking fountains and benches), signage, and pavers.

- Where trails meet public roads, access points should be directly across from each other and the crossing should be signalized.
- Wherever possible, pathways should be uninterrupted by conflicts with vehicles through grade separations.

Policy SDR-3. All recreational areas and plazas, passive or active, should be visually and/or physically linked to the River Corridor's passive recreation areas and facilities, so that they are integrated into the area-wide open space system.

Policy SDR-5. Permanent best management practices, listed in the City's Storm Water Standards Manual, must be implemented on all river area projects. Incorporate both mandatory structural practices (swales, infiltration basin) and mandatory non-structural practices (restricted irrigation, aggressive street cleaning).

Mission Valley Impact Fee Study

The purpose of the Impact Fee Study is to provide a list of public facilities that are needed to implement the goals of the community plan and to develop applicable Development Impact Fees (DIFs) pursuant to California Government Code Section 66000 through which new development will pay no more than its proportional fair-share of the cost of those facilities based on a clear nexus. The Impact Fee Study functions as an implementation document of the City of San Diego's General Plan (General Plan) and the Mission Valley Community Plan. The Impact Fee Study includes several categories of public facilities to meet the needs of diverse communities including, but not limited to: mobility, parks and recreation, library, and fire-rescue. It identifies a baseline of existing public facilities as well as those that are needed as the community continues to develop. The Impact Fee Study identifies the extent to which facilities are eligible for DIF funding. Some public facilities may be recognized locally as serving the needs of the community and benefiting the public but may not be identified as eligible for DIF funding due to policy or legal limitations. The Fiscal Year 2020 Mission Valley Impact Fee Study (Mission Valley IFS) replaces the Fiscal Year 2013 Mission Valley Public Facilities Financing Plan (adopted by Resolution No. R308112). The Mission Valley IFS is an update that reflects changes in the amount of anticipated development and to the estimated cost of community serving facilities.

3.12.3 Significance Criteria

The significance criteria used to evaluate the project impacts to tribal cultural resources are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to recreational resources would occur if the project would:

1. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
2. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

3.12.4 Impacts Analysis

Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Pre-Cast and Cast-in-Place Construction Methods

Under this significance criterion, an impact would occur if the project would increase the use of existing park and recreational facilities to the point where substantial physical deterioration of such facilities would occur or be accelerated. More specifically, this criterion addresses impacts in relation to off-site, existing recreational facilities that would experience an increase in usage resulting from the proposed project that may result in physical deterioration of the facilities. The construction of new parks and recreational facilities may be required by a project to reduce the impacts to existing facilities.

As pre-cast or cast-in-place construction of the bridge occurs, access to some of the surrounding recreational facilities may be limited. The river park, bordering the northeast end of the project site, would be affected since this would border the construction site and could possibly be used as staging for the necessary equipment. The usage of this nearby recreational area would decrease as construction occurs. However, these impacts would be temporary. Once construction of the bridge is completed, the park area impacted by the project site would be available to the public once again. Any restrictions to the recreational facilities would be temporary and there would not be any permanent removal of park resources.

Since this project involves the construction of a bridge with no residential facilities or employees visiting the site on a regular basis, it would not result in an increased demand for additional recreational facilities. The addition of this bridge would not require the construction or expansion of recreational resources as a result of this project.

Based upon the above, the proposed project would not result in an increased use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. As a result, impacts would be **less than significant.**

Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Pre-Cast and Cast-in-Place Construction Methods

As previously discussed, the proposed project would not include recreational facilities on site or expand the current recreational facilities in the surrounding area. The proposed project would not generate a demand for parks, nor would it lead directly or indirectly to substantial population growth such that the construction or expansion of recreation facilities would be required. Therefore, the project would not have an adverse physical effect on the environment as a result of constructing or expanding recreational facilities. Accordingly, impacts related to adverse physical effects on the environment resulting from construction of new recreational facilities would be **less than significant.**

3.12.5 Cumulative Impacts

Would the project contribute to a cumulatively considerable impact to recreation?

The cumulative impact area for recreation facilities is the Mission Valley Community Plan area. The Mission Valley Community Plan Update Final Program EIR determined that the community plan area would be approximately 50.2 acres short of the projected parkland necessary to meet the City's 2.85 acres per 1,000 population standard and determined that such impacts were significant and unavoidable (City of San Diego 2019b). The Mission Valley Community Plan Update anticipated that the nearby Snapdragon Stadium and River Park would provide approximately 41 acres of parks, recreation, and open space for the area. Construction of the bridge would temporarily impact the community's ability to access these recreational resources and open spaces, but would not result in the permanent removal of these resources. The proposed project would not require any additional recreational resources to be constructed as it would not introduce any new residents to the area. The bridge would be beneficial to the community as it would improve access to the Mission Valley Campus and to residents south of the San Diego River once construction is complete. The proposed project's contribution to cumulative park services and recreation impacts would not be cumulatively considerable. Impacts would be **less than significant**.

3.12.6 Summary of Impacts Prior to Mitigation

Direct impacts to recreational services would be **less than significant**.

3.12.7 Mitigation Measures

No mitigation measures are required.

3.12.8 Level of Significance After Mitigation

Direct impacts related to recreation would be **less than significant**.

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3.13 Transportation

This section describes the existing traffic/circulation setting near the proposed Fenton Parkway Bridge Project (project), identifies associated regulatory requirements, and evaluates potential adverse impacts related to conflicts with an applicable program, plan, ordinance, or policy addressing the circulation system including transit, roadway, bicycle and pedestrian facilities; conflict or inconsistency with California Environmental Quality Act (CEQA) Guidelines Section 15064.3(b); a substantial increase in hazards due to a geometric design feature; and inadequate emergency access.

Pursuant to Senate Bill (SB) 743, vehicle miles traveled (VMT) was adopted as the new metric to evaluate the significance of transportation impacts. These guidelines and thresholds apply to land use and transportation projects that are subject to CEQA analysis. Therefore, this section uses VMT as the basis for evaluating transportation impacts of the proposed project under CEQA. The Fenton Parkway Bridge Transportation Study was prepared by Fehr & Peers in November 2023, per requirements established by the revised CEQA Guidelines, the City of San Diego Transportation Study Manual (TSM) (City of San Diego 2022), and the California State University (CSU) Transportation Impact Study Manual (CSU 2019). This study is included herein as Appendix H.

A Notice of Preparation was circulated from May 22 to June 20, 2023. A total of 16 letters were received during this comment period. Comments received related to transportation included emergency response and evacuation, traffic impacts to surrounding roadways, pedestrian access, and bicycle lanes. Please see Appendix A, NOP and Scoping Comments, for a complete compilation of comments received in response to the Notice of Preparation.

3.13.1 Existing Conditions

This section provides a summary of the existing circulation network, bicycle and pedestrian facilities, and transit service.

Existing Street System

The primary roadways connecting to and surrounding the proposed project are described below.

Fenton Parkway is a north–south roadway that extends from the trolley line to a cul-de-sac with driveways to the Portofino and Escala residential complexes. It functions as a four-lane major arterial and is bounded by a combination of residential and commercial uses. There is no posted speed limit. A planned at-grade crossing of the Metropolitan Transit System (MTS) trolley tracks on Fenton Parkway south of the existing roadway terminus and the Fenton Parkway/River Park Road intersection is under construction and would be completed prior to construction of the Fenton Parkway Bridge.

River Park Road is a two-lane roadway along the western side of the San Diego State University (SDSU) Mission Valley site development that will include a future southwest entrance into the SDSU Mission Valley site development upon completion of construction, which would be before the construction of the proposed project.

Mission City Parkway is a north–south roadway that runs between Camino Del Rio North and Camino Del Rio South and crosses over Interstate 8. It functions as a two-lane collector and is bounded by commercial uses. The posted speed limit is 35 mph.

Camino Del Rio North is an east–west roadway that extends from Camino de La Siesta to Fairmount Avenue where it connects with Alvarado Canyon Road. It functions as a two-lane collector with a center left-turn lane between Camino de La Siesta and Mission Center Road, as a three-lane major arterial (two lanes in the westbound direction and one in the eastbound direction) from Mission Center Road to Camino Del Este, as a four-lane major arterial from Camino Del Este to Mission City Parkway, as a two-lane collector with a center left-turn lane from Mission City Parkway to Ward Road, and as four-lane collector from Ward Road to Fairmount Avenue. Camino Del Rio North is fronted by a combination of retail, hotel, and residential uses. The posted speed limit ranges from 35 to 45 mph.

Existing Bicycle Circulation

Several bicycle facilities exist on streets in the immediate vicinity of the project site. A multi-use path (the San Diego River Trail) connects to the north platform at the Fenton Parkway Trolley Station. Bike lanes currently exist on Fenton Parkway south of Friars Road and terminate north of the MTS trolley tracks. Bicycle lanes are also provided on the section of Camino Del Rio North that is west of Mission City Parkway. Figure 3.13-1 illustrates the bicycle network that serves the Mission Valley community.

Existing Pedestrian Circulation

Pedestrian facilities are available immediately adjacent to the project site and include sidewalks, paths, crosswalks, pedestrian push buttons, and pedestrian signal heads at signalized intersections. Sidewalks are present along both sides of all street segments within the study area, except for Camino Del Rio North east of Mission City Parkway and the east side of Mission City Parkway south of Camino Del Rio North. Pedestrian push buttons are provided at the Camino Del Rio North/Mission City Parkway intersection. Sidewalks are provided on both sides of Fenton Parkway north of the MTS trolley tracks but end at the terminus of the street at the tracks. The sidewalk on the east side of the street provides direct access to the Fenton Parkway Station platform area.

Existing Transit Services

MTS provides bus and trolley service near the proposed Fenton Parkway Bridge, including an existing Green Line trolley stop at the north end of the proposed bridge. The trolley's Green Line provides service along the San Diego River corridor, and several MTS bus routes provide service within the study area. Detailed descriptions of each service are presented below.

The Green Line provides daily service between Santee and downtown San Diego, extending along the San Diego River and passing through the northern end of the project site. This route includes the station at Fenton Parkway near Fenton Parkway and Rio San Diego Drive. During weekdays, this line operates from 4:52 a.m. to 12:38 a.m. in the westbound direction and 3:53 a.m. to 12:15 a.m. in the eastbound direction. Observations conducted by Fehr & Peers (Appendix H) at this station during the peak periods indicate numerous available seats on trains with few, if any, passengers standing.

Bus Route 18 provides weekday service from the Grantville Trolley Station to Qualcomm Way/Texas Street. In the study area, this route travels along Camino Del Rio North and Qualcomm Way and includes a stop at Camino Del Rio North and Mission City Parkway. This route operates from 7:08 a.m. to 5:30 p.m. in a loop beginning and ending at the Grantville Trolley Station.

Figure 3.13-2 illustrates the transit facilities that serve the Mission Valley community.

3.13.2 Relevant Plans, Policies, and Ordinances

Federal

There are no federal plans, policies, or ordinances relevant to the proposed project.

State

Senate Bill 743/CEQA Guidelines

On September 27, 2013, Governor Brown signed SB 743, which became effective on January 1, 2014. The purpose of SB 743 is to streamline the review under the CEQA process for several categories of development projects, including the development of infill projects in transit priority areas, and to balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions. SB 743 adds Chapter 2.7, Modernization of Transportation Analysis for Transit Oriented Infill Projects, to the CEQA Statute (California Public Resources Code, Section 21099). Section 21099(d)(1) provides that aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment. In addition, SB 743 mandates that alternative metrics for determining impacts relative to transportation shall be developed to replace the use of level of service (LOS) in CEQA documents.

In the past, environmental review of transportation impacts focused on the delay that vehicles experience at intersections and on roadway segments, which is often measured using LOS. Mitigation for impacts on vehicular delay often involves increasing capacity, such as widening a roadway or increasing the size of an intersection, which in turn encourages more vehicular travel and greater pollutant emissions. Additionally, improvements to increase vehicular capacity can often discourage alternative forms of transportation such as biking and walking. SB 743 directed the Governor's Office of Planning and Research (OPR) to develop an alternative metric for analyzing transportation impacts in CEQA documents. The alternative shall promote the state's goals of reducing greenhouse gas emissions and traffic-related air pollution, promoting the development of multimodal transportation system, and providing clean, efficient access to destinations. Under SB 743, it was anticipated that the focus of transportation analysis would shift from vehicle delay to VMT within transit priority areas (i.e., areas well served by transit).

Pursuant to SB 743, OPR released the draft revised CEQA Guidelines in November 2017, recommending the use of VMT for analyzing transportation impacts. Additionally, OPR released updates to the Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018), to provide guidance on VMT analysis. In this Technical Advisory, OPR provides its recommendations to assist lead agencies in screening out projects from VMT analysis and selecting a significance threshold that may be appropriate for their particular jurisdiction. While OPR's Technical Advisory is not binding on public agencies, CEQA allows lead agencies to "consider thresholds of significance . . . recommended by other public agencies, provided the decision to adopt those thresholds is supported by substantial evidence" (14 CCR 15064.7[c]).

In December 2018, the CEQA Guidelines were updated to add new Section 15064.3, Determining the Significance of Transportation Impacts, which describes specific considerations for evaluating a project's transportation impacts using the VMT methodology. This new methodology is required to be used for projects beginning on July 1, 2020.

CEQA Guidelines Section 15064.3(b) is divided into four subdivisions as follows:

1. Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.
2. Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.
3. Qualitative Analysis. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.
4. Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project.

Since the project would be categorized as a transportation project, CEQA Guidelines Section 15064.3(b)2 applies to the proposed project.

The CSU is serving as the lead agency for purposes of conducting environmental and engineering studies for the proposed project and will lead permitting and construction for the proposed project. The City of San Diego will ultimately have jurisdiction over and maintain the street extension, bridge structure, and associated operating features. CSU has published a Transportation Impact Study Manual (March 2019) that describes the methodology for analyzing transportation-related impacts resulting from the implementation of campus master plans, new or modified land uses, and other land development projects. However, it does not specifically address infrastructure only projects such as road or bridge additions. To that end, guidelines published by the City of San Diego were used to conduct the impact analysis of the proposed project. It is important to note that both the CSU and City guidelines use VMT as the primary metric for transportation analyses for environmental documentation purposes.

Regional

SANDAG San Diego Forward: The 2021 Regional Plan

The San Diego Association of Governments (SANDAG) San Diego Forward: The 2021 Regional Plan (2021 Regional Plan) was adopted by the SANDAG Board of Directors on December 10, 2021. It includes the region's Regional Transportation Plan (RTP); Sustainable Community Strategy (SCS), as required by SB 375; and Regional Comprehensive Plan. The 2021 Regional Plan provides a long-term blueprint for the San Diego region that seeks to meet regulatory requirements, address traffic congestion, and create equal access to jobs, education, healthcare, and other community resources. The SCS describes coordinated transportation and land use planning that exceeds the state's target for reducing per capita GHG emissions set by the California Air Resources Board (CARB). For the first time, the 2021 Regional Plan incorporates five transformational strategies known as the 5 Big Moves: Complete Corridors, Transit Leap, Mobility Hubs, Flexible Fleets, and Next Operating System. These interdependent strategies are designed to address the greatest transportation and mobility challenges i.e. safety and traffic congestion, social inequities, and state and federal requirements to reduce GHG emissions and air pollution.

The 2021 Regional Plan re-envisions the regional transportation system and its Appendix A: Transportation Projects, Program and Funding breaks down the transportation system into its components and details how each project is phased, when specific improvements are expected to be completed, and their cost. Specific transportation improvements are identified by corridors and by type such as rural corridors, arterials, mobility hubs and flexible fleets, Next Operating System, Systemwide Transit Supportive Services, Supporting Policies and Programs, Other Systemwide Programs and Unconstrained Goods Movement Projects. The Mission valley Community Plan area and the project site are generally located within the Figure A2: South Bay to Sorento of the Appendix A of the 2021 Regional Plan.

Local

General Plan Mobility Element

Blueprint SD is a refresh of the City's 2008 General Plan to address the recently updated Climate Action Plan and the 2021 Regional Plan. As mentioned in the Draft General Plan Mobility Element, April 2023, the goal of the Mobility Element is to achieve a balanced, multi-modal transportation system network that allows people to move around safely, conveniently and enjoyable, and minimizes environmental and neighborhood impacts for people. It contains policies that help walking/rolling, bicycling, and using shared mobility devices become more viable for short trips, and for transit to link highly frequented destinations more efficiently. It also includes a vision for improving existing streets consistent with Complete Streets planning principles and concepts that will result in dynamic, vibrant corridors that support all modes of travel.

Complete Communities: Mobility Choices

The City's Complete Communities program focuses on housing, mobility, parks and infrastructure, and includes planning strategies that work together to create incentives to build homes near transit, provide more mobility choices and enhance opportunities for places to walk, bike, relax and play. The Mobility Choices portion aims to provide more mobility options for San Diegans to commute and recreate by streamlining development in areas of the City that are most aligned with the City's climate goals and by investing in active transportation infrastructure, such as pedestrian and bicycle facilities. The purpose of the Mobility Choices Regulations is to reduce Citywide VMT to address the environmental impacts of development related to noise, air pollution, and greenhouse gas

emissions, and to promote public health and enjoyment, by investing in active transportation infrastructure and amenities that will result in the greatest reductions to Citywide VMT. ("Purpose of Mobility Choices Regulations" added 12-9-2020 by O-21274 N.S.; effective 1-8-2021. Regulations for the Mobility Choices portion of the Complete Communities program are provided in the San Diego Municipal Code (SDMC) Chapter 14, Article 3, Division 11. SDMC Ordinance No. O-21274 (adopted on December 9, 2020). The project is located within the Mobility Zone 2 of the Mobility Zones established by the program. As such, the regulations and requirements for VMT reduction measures included for Mobility Zone 2 included in the ordinance apply only to land development projects. The proposed project is a transportation project and as shown in the analysis in this section, would reduce total VMT and not require any mitigation.

City of San Diego Bicycle Master Plan

The 2013 City of San Diego Bicycle Master Plan presents a bicycle network, projects, policies, and programs for improving bicycling through 2030 and beyond, consistent with the City's 2008 General Plan mobility, sustainability, health, economic, and social goals. The goals of the Bicycle Master Plan are to create: a city where bicycling is a viable travel choice, particularly for trips of less than five miles; a safe and comprehensive local and regional bikeway network; and environmental quality, public health, recreation and mobility benefits through increased bicycling. These goals are supported by General Plan Mobility Element policies to help bicycling become a more viable transportation mode for trips of less than five miles, to connect to transit, and for recreation.

For the Mission Valley Community Plan, an objective of the plan is to create an intra-community bikeway system which would provide access to the various land use developments within the Mission Valley and connect to the regional system and to encourage bicycle use in the Valley. The plan identifies a bicycle system that utilizes major roadways and offers Class I paths where they can be accommodated. The key components of the bikeway system include connections to Mission Bay, activity centers within Mission Valley, and Mission Hills. The plan recommends support bicycle facilities including installing bicycle sensitive signal detectors at signalized intersections, requiring development fees to improve bicycle facilities, and providing lockers, showers, and changing facilities at major developments in order to encourage bicycling as a convenient mode of transportation. Mission Valley has an extensive system of Class I Bike Paths and facilities now exist on both sides of the San Diego River. Plans are to close gaps in the existing network and extend it easterly into the Navajo community to connect to Mission Trails Regional Park and eventually to the Santee city limit. The City of San Diego plans to eliminate at-grade crossings at major intersections with bridges. The existing and proposed bike facilities near the project and proposed as part of the project are described in Sections 3.1.3.1 and 3.13.5, respectively.

Mission Valley Community Plan

The Mission Valley Community Plan contains the vision, implementation, policies, and guidelines developed as a guide for the local community, property owners, and developers to have a shared understanding on how Mission Valley will grow and change in the coming decades. The goals and policies from the Mobility Element relevant to the Mission Valley are identified in the Mission Valley Community Plan as follows:

Table 3.13-1. General Plan Mobility Element Reference Policies

Topic	Mobility Element Policies
Walkability	ME-A.1 through ME-A.9
Bicycling	ME-F.1 through ME-F.6
Transit	ME-B.1 through ME-B.10

Table 3.13-1. General Plan Mobility Element Reference Policies

Topic	Mobility Element Policies
Street & Freeways	ME-C.1 through ME-C.7, and Table ME-2 (Traffic Calming Toolbox)
Innovative Technology	ME-D.1 through ME-D.6
Transportation Demand Management	ME-E.1 through ME-E.8
Parking	ME-G.1 through ME-G.5, Table ME-3 (Parking Strategy Toolbox)

Source: Mission Valley Community Update.

The "Eastern Mission Valley" referenced in the MVCP encompasses the Fenton Parkway Bridge project site. The MVCP Update also designates the project site as Campus Master Plan. The update to the Mission Valley Community Plan also makes several direct references to the extension of Fenton Parkway into Mission City Parkway to expand north-south mobility at the eastern portion of the community and help support additional trips that will result from planned development from Campus Master Plan. It will also greatly benefit pedestrians, bicycles, and transit users by improving access to the Green Line station and the San Diego River Trail, and a variety of land uses, while also providing a high-water crossing on the east side of the community during flooding events.

3.13.3 Methodology

As mentioned previously, the City of San Diego TSM has been used to analyze the project's VMT impact. Per The City's TSM, "any [transportation] project that results in an increase in additional motor vehicle capacity (such as constructing a new roadway or adding additional vehicle lanes on an existing roadway) has the potential to increase vehicle travel, referred to as "induced vehicle travel." However, some projects are determined to not result in a significant environmental impact including the "implementation of roadways that are included in community plans approved after the comprehensive General Plan Update in 2008 if conditions are substantially improved for active transportation modes." Based on this criterion and other supporting documentation in the TSM, the proposed Fenton Parkway Bridge would not result in a significant impact since it was included in the MVCP update[1] approved in 2020, and it will provide new high-quality pedestrian and bicycle network connections between existing and proposed land uses. However, the bridge in the MVCP was planned with a higher vehicle capacity (i.e. 4-Lane Collector with Two-Way Left-Turn Lane) than is currently included in the proposed project (2-Lane Collector with center striped median). As such, a new VMT analysis was completed to determine the potential impacts of the current project.

The comparison of the estimated changes in VMT without and with the roadway extension determines if the new extension is expected to reduce area VMT by providing a more direct route for vehicles between origins and destinations, or if the extension is expected to increase VMT in the project vicinity. An evaluation of the project's effects on the LOS and delay on the local transportation network is also provided for informational purposes, but

[1] Mobility Technical Report. MVCP. Chen Ryan, December 2018: Fenton Parkway will be extended south from the existing southern terminus to Camino Del Rio North as a Four- Lane Collector with a Two - Way Left Turn Lane. The Fenton Parkway connection over the San Diego River to Camino Del Rio North/Mission City Parkway is included in the adopted Mission Valley Community Plan. To determine if this connection should be removed as a part of this Community Plan Update, alternative scenarios were contemplated both with and without the Fenton Parkway connection. The evaluation indicated the connection would provide several benefits, including:

- Improved emergency response times through additional access and routing
- A much-needed high-water roadway crossing during flooding events
- Decreased travel distances and reduced volumes on streets and intersections

As a result, consistent with the 1985 Mission Valley Community Plan, Fenton Parkway will be extended south from the southern terminus to the Camino Del Rio North/Mission City Parkway intersection.

not for purposes of evaluating whether the proposed project would have a significant impact on the environment. Pursuant to CEQA Guidelines section 15064.3(a), "a project's effect on automobile delay shall not constitute a significant environmental impact."

VMT Analysis

Per the City's TSM, the VMT analysis for transportation projects should compare the area total VMT with the project against the area total VMT without the project to determine if a proposed project will result in an increase in regional VMT (per Table 4: Transportation VMT Analysis Methodology by Land Use on Page 28). The area total VMT should use the "boundary method," which evaluates the daily volume on every roadway segment multiplied by the length of every roadway segment within a given area that reflects the potentially affected radius of a proposed project. A net increase in area total VMT indicates that the project may have a significant impact, while a decrease in area total VMT is considered a less than significant impact. Consistent with the City's TSM, the transportation VMT analysis was conducted using the SANDAG travel demand model.

SANDAG Travel Demand Model and Analytical Methodology

The SANDAG activity-based travel demand model (ABM) is the best planning tool available for forecasting future traffic volumes resulting from changes in land use, the transportation network (including roadways and pedestrian, bicycle and transit facilities and services), and anticipated changes in mobility patterns (e.g., working from home). This tool is effective at estimating changes in the roadway network like a new roadway connection that will shorten travel times for some vehicle trips and improve access to adjacent land uses and transit stations.

Fehr & Peers performed custom model runs using the ABM2+ version of the SANDAG model that includes a scenario for the 2019 SANDAG Regional Plan/Sustainable Community Strategy (RP/SCS) also known as the Federal RTP. This version of the model includes land use plans for cities in the region that are generally reflective of their General Plan land use assumptions, but it does not include the road user charge (RUC) that was originally included in the subsequent 2021 RP, but later rescinded by the SANDAG Board. The SANDAG model includes a 2016 Base Year and future year scenarios in 2035 and 2050, and the specific scenario study years for this project are described in the next section.

The version of the ABM2+ model obtained from SANDAG did not include the planned land uses for the SDSU Mission Valley site development located on the site of the former SDCCU stadium. The site development is anticipated to ultimately include 4,600 dwelling units, 1.6 million square feet (sf) of educational, research, entrepreneurial and technology uses, 95,000 sf of retail, grocery, and restaurant uses, and a 400-room hotel, as well as 85 acres of active and passive river park uses. These land uses were coded with appropriate demographic information in the appropriate traffic analysis zones in the model, and the model was run without and with the proposed Fenton Parkway Bridge to determine the change in VMT as noted above, as well as projected traffic growth on the study roadways analyzed from an operational analysis for informational purposes.

VMT Study Area and Scenarios

To evaluate the transportation impacts of the proposed project for purposes of CEQA analysis, an areawide evaluation was conducted to determine the estimated project effect on VMT. Fehr & Peers evaluated a three-mile buffer and five-mile buffer around the project site to conduct the VMT assessment. The use of these geographies as opposed to the entire SANDAG region limits the effect of model "noise" or potential variations in results due to the size of the regional model (which includes all of San Diego County) and captures all the vehicle travel that we

would expect to be affected by the new connection. The three-mile radius was chosen based on the proximity of alternative routes that provide adjacent crossings of the river in the project vicinity (especially between SR 163 and Interstate 15), as well as parallel roadways to Friars Road and Camino Del Rio North and South (e.g., Aero Drive and El Cajon Boulevard), which could be directly affected by new connection. The five-mile radius includes additional regional facilities such as SR 52, SR 94, and I-5 to highlight the scale of changes in VMT over a larger area.

Figure 3.13-3, Study Area for VMT Analysis, illustrates the three and five-mile buffer around the proposed project. The project's effect on VMT was evaluated for the following scenarios:

- Year 2027 No Project
- Year 2027 With Project
- Year 2050 No Project
- Year 2050 With Project

Significance Threshold

The significance threshold and specific VMT metric used to measure VMT for transportation projects per City's TSM is zero net increase in total regional VMT. As explained in Section 3.13.3, a three-mile and five-mile buffer around the project site was used conduct the VMT assessment instead of the entire SANDAG region to capture all the vehicle travel that we would expect to be affected by the new connection and limit the effect of model "noise" or potential variations in results due to the size of the regional model. Therefore, the project would result in a significant impact if total VMT in baseline or future conditions would increase with project as compared to without project alternatives.

3.13.4 Significance Criteria

The significance criteria used to evaluate the project impacts to transportation are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to transportation would occur if the project would:

1. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
2. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).
3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
4. Result in inadequate emergency access.

3.13.5 Impacts Analysis

Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Pre-Cast and Cast-in-Place Construction Method

The proposed project involves a pre-cast or cast-in-place construction method of the Fenton Parkway Bridge connection which has been included in the MVCP Update and provides a vital connection in the community. The bridge would expand north-south mobility at the eastern portion of the community and help support additional trips that will result from planned development from Campus Master Plan. The LOS analysis conducted for informational purposes by Fehr & Peers (Appendix H) of the study intersections of Fenton Parkway/River Park Road and Fenton Parkway/Camino Del Rio North/Mission City Parkway under Year 2027 and Year 2050 conditions without and with Project demonstrates that the circulation system would operate at acceptable conditions.

The proposed project includes an elevated bicycle path in each direction adjacent to (and at the same grade as) a sidewalk for pedestrians. The bicycle paths will provide an extension of the existing standard bicycle lanes on Fenton Parkway north of the trolley tracks, and they will provide a new connection to existing bicycle lanes on Camino Del Rio North, west of Mission City Parkway and future paths within the SDSU Mission Valley site and river park (estimated to be operational by end of 2023). The elevated paths will provide an enhanced level of protection for cyclists and help to encourage this mode of travel. The City of San Diego is also expected to install bicycle lanes on Mission City Parkway that will connect to existing buffered bike lanes on Camino Del Rio South east of Mission City Parkway. The Fenton Parkway Bridge bicycle facilities are a critical element to enhancing connectivity, increasing accessibility, and enhancing safety for bicyclists in Mission Valley.

The provision of the sidewalks on the new bridge will enhance walkability for commuters and recreational pedestrians in this area of Mission Valley. Employees in buildings along the Camino Del Rio North and South corridors will be able to walk to the future (estimated to be operational by end of 2023) river park uses within the SDSU Mission Valley site, as well as to restaurant and retail opportunities within Fenton Marketplace, all of which will be within a ½-mile distance.

Expansion of the active transportation network between land uses on the north and south sides of the San Diego River will increase walk and bike access to the Fenton Parkway trolley station, specifically for patrons with origins and destinations south of the river. These individuals do not currently have access to higher quality transit such as the trolley or a Rapid/express bus route. In addition, the new bridge will provide a new roadway connection that could be used by MTS buses to shorten trips from trolley stations to origins and destinations outside the typical maximum walking distance of ½-mile to fixed rail transit.

With all these multi-modal benefits and controlled intersection crossings, no roadway, pedestrian, bicycle or transit impacts are anticipated with implementation of the proposed project. As discussed in Section 3.13.2, the proposed project would not be inconsistent or impede implementation of 2021 Reginal Plan, General Plan Mobility Element, Complete Streets: Mobility Choices, Bicycle Master Plan and MVCP Update. Therefore, the project would not conflict with any program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities and impact would be **less than significant**.

Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

CEQA Guidelines Section 15064.3(b) is divided into four subdivisions: (1) Land Use projects; (2) Transportation Projects; (3) Qualitative Analysis; and (4) Methodology.

Because the project is a transportation project, the CEQA Guidelines Section 15064.3, subdivision (b) 2 applies to the proposed project. For transportation projects, any project that results in an increase in additional motor vehicle capacity (such as constructing a new roadway or adding additional vehicle travel lanes on an existing roadway) has the potential to increase vehicle travel, referred to as "induced vehicle travel." Because the project proposes a bridge that would increase roadway capacity, a VMT assessment was conducted by Fehr & Peers.

Table 3.13-2 provides the Year 2027 VMT forecasts for the project. The SANDAG Model was used for base year (2027) and future year (2050) conditions. These results were forecast using the SANDAG ABM 2+ 2035 without and with project model scenarios and SANDAG ABM2+ 2016 model scenario. As shown in the table, the total VMT is projected to decrease within a three-mile and five-mile radius of the project by 7,170 VMT and 9,452 VMT, respectively. This suggests that drivers who would otherwise take a longer alternative route are able to use the Fenton Parkway Bridge and shorten their trip length, reducing VMT overall. Because the project would not increase total VMT, the proposed project would result in a less than significant transportation impact to VMT in baseline or Year 2027.

Table 3.13-2. Year 2027 VMT Estimates Without and With Project

Analysis Area	No Project VMT	With Project VMT	Total Change in VMT	Percent Change in VMT With Project
Three-mile radius	8,304,209	8,297,038	-7,170	-0.09%
Five-mile radius	18,948,278	18,938,826	-9,452	-0.05%

Source: Appendix H.

Table 3.13-3 provides the results of the VMT analysis for the project. Between the 2035 and 2050 SANDAG model scenarios within three miles of the proposed project, growth in roadway segment ADT is around 4% and growth in VMT is around 4%. Given the relatively small change in ADT and VMT, travel patterns are expected to be similar in 2035 and 2050 and the addition of the Fenton Parkway Bridge to the 2050 roadway network is anticipated to have a similar effect on VMT as in the 2035 model scenario. Therefore, Year 2035 model results were considered representative of the Year 2050 conditions. As shown in the table, the total VMT is projected to decrease within a three-mile and five-mile radius of the project by 7,887 VMT and 10,399 VMT. Under Year 2050 conditions, a net reduction in area VMT is expected, and the proposed project would result in a less than significant VMT impact.

Table 3.13-3. Year 2050 VMT Estimates Without and With Project

Analysis Area	No Project VMT	With Project VMT	Total Change in VMT	Percent Change in VMT With Project
Three-mile radius	9,134,284	9,126,397	-7,887	-0.09%
Five-mile radius	20,847,774	20,837,375	-10,399	-0.05%

Source: Appendix H.

Based on the VMT analysis provided above, the proposed project is not anticipated to increase VMT compared to the no project conditions. Therefore, the project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) and impact would be **less than significant**.

Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed project would construct a new bridge between River Park Road to Camino Del Rio North. The bridge would to be built with one travel lane in each direction (northbound and southbound) with separate left-turn lanes provided at each intersection where turns are permitted. On the bridge structure between the two permanent travel lanes, the roadway will include a striped median that will connect the two separate left-turn lanes. These turn lanes and median could serve as a second travel lane in either direction during special events at the stadium or during an emergency evacuation event when additional vehicle capacity is needed. The roadway and bridge will also include an elevated bicycle lane in each direction adjacent to (and at the same grade as) a sidewalk for pedestrians. The bicycle lanes will provide an extension of the existing bicycle lanes on Fenton Parkway north of the trolley tracks.

These proposed project features will:

1. separate pedestrians and bicyclists from vehicle traffic, expand the active transportation network between land uses on the north and south sides of the San Diego River,
2. increase access to the Fenton Parkway trolley station to patrons south of the river, and
3. enhance safety for non-automobile travelers in this corridor.

The roadway extension also includes new left-turn lanes and a traffic signal modification at the Fenton Parkway-Mission City Parkway intersection at Camino Del Rio North. A new traffic signal will be installed at the Fenton Parkway/River Park Road intersection. The proposed project includes separated bike lanes and sidewalks on both sides of the bridge and will provide a new high-water crossing over the San Diego River. At the north end of the proposed project's bridge alignment and prior to its construction, Fenton Parkway will be extended for a short distance across the MTS Green Line trolley tracks. The new terminus of Fenton Parkway will be connected to an extension of River Park Road and provide a new access to the southwest corner of the SDSU Mission Valley site development. This new "L-shaped" intersection will be controlled by a stop sign on the River Park Road approach, and the Fenton Parkway approaches to the tracks will include gate arms and signals to prevent vehicles from crossing the tracks as trolleys approach and depart the Fenton Parkway Station. No other street improvements are planned on roadways at either end of the proposed street extension and bridge alignment.

Appendix C of the City's Systemic Safety the Data-Driven Path to Vision Zero (2019) document provides methodology for identifying systemic safety hotspots for pedestrians, bicyclists, and vehicles throughout the City. These are locations where, based on intersection geometry, control, and ADT, pedestrians and bicyclist have a higher likelihood of being involved in a crash involving a vehicle. None of the existing roadways and intersections at the end of the bridge alignment include these configurations. As such, no systemic hotspots are present under existing conditions or would be created with the proposed project.

Appendix H also includes an LOS analysis of planned and needed roadway capacity for the Fenton Parkway Bridge. Current design plans are anticipated to be effective at keeping delays at acceptable levels for the study intersections of Fenton Parkway/River Park Road and Fenton Parkway/Camino Del Rio North/Mission City Parkway under Year 2027 and Year 2050 conditions without and with Project.

Therefore, impacts due to increase hazards due to a geometric design feature or incompatible uses would be **less than significant**.

Would the project result in inadequate emergency access?

As discussed above, construction of the proposed project over San Diego River from River Park Road to Camino Del Rio North/Mission City Parkway would provide additional roadway capacity, access for all modes of transportation and would improve emergency access and response as well as overall circulation in the project's vicinity. Section 3.16, Wildfire, discusses the appliable emergency operations plan for the City and along the roadways in detail. The primary evacuation route nearest to the project site involves utilizing I-15. As noted in Section 3.16, between I-15 and I-805, there is currently no existing roadway infrastructure providing direct north-south access from Camino Del Rio North to uses on the north side of the San Diego River. The proposed project would connect the southern terminus of Fenton Parkway to the northern terminus of Camino Del Rio North/Mission City Parkway. The bridge would include a 10-foot center lane that would provide an optional additional traffic lane during stadium or emergency events. Additionally, the contractor will coordinate any resulting lane closures during construction with local emergency service providers to provide access during the event of an emergency. The contractor will also coordinate with the City regarding requirements for traffic control measures to be implemented during construction. Therefore, the project would not result in inadequate emergency access during construction or operation and its impact would be **less than significant**.

3.13.6 Cumulative Impacts

Would the project result in cumulatively considerable impacts related to transportation?

The transportation study for the proposed Fenton Parkway Bridge project evaluated the estimated change in total area VMT resulting from the implementation of the project and concludes that the proposed project will result in a reduction in regional VMT. The comparison of the estimated changes in VMT without and with the roadway extension determined that the proposed extension is not expected to increase area VMT because the project provides a more direct route to and from destinations. Therefore, the project is expected to have a less than significant transportation impact to VMT pursuant to CEQA. In addition, intersection and roadway capacity analysis was also conducted to provide information about the operational effects of the project to the local transportation network with the addition of the new roadway connection. The proposed capacity of the Fenton Parkway Bridge and new/reconfigured intersections is sufficient for the estimated daily and peak hour traffic demand under Opening Year (2030) and Design Year (2050) conditions and will not cause any roadways to operate at an undesirable LOS. Based on these results, the proposed project would not contribute to a cumulatively considerable impact on VMT or the local transportation network. All other cumulative projects would be required to analyze potential VMT and transportation network impacts and mitigate as necessary. Thus, cumulative impacts would be **less than significant**.

3.13.7 Summary of Significant Impacts Prior to Mitigation

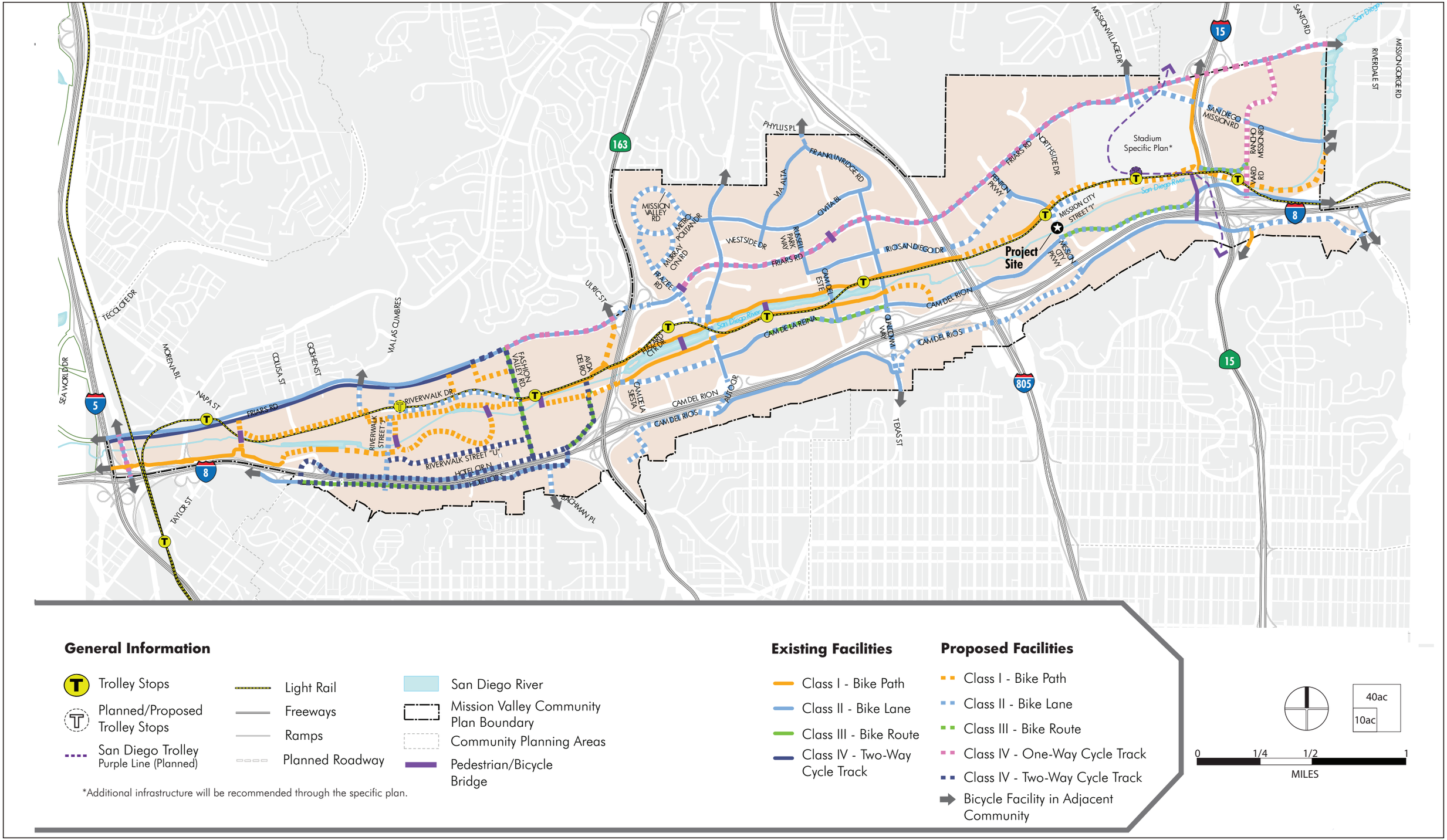
All impacts related to traffic and transportation would be **less than significant**.

3.13.8 Mitigation Measures

No mitigation measures are required.

3.13.9 Level of Significance After Mitigation

The proposed project would result in **less than significant** impacts. No mitigation measures are required.



General Information

- Trolley Stops
- Planned/Proposed Trolley Stops
- San Diego Trolley Purple Line (Planned)
- Light Rail
- Freeways
- Ramps
- Planned Roadway
- San Diego River
- Mission Valley Community Plan Boundary
- Community Planning Areas
- Pedestrian/Bicycle Bridge

*Additional infrastructure will be recommended through the specific plan.

Existing Facilities

- Class I - Bike Path
- Class II - Bike Lane
- Class III - Bike Route
- Class IV - Two-Way Cycle Track

Proposed Facilities

- Class I - Bike Path
- Class II - Bike Lane
- Class III - Bike Route
- Class IV - One-Way Cycle Track
- Class IV - Two-Way Cycle Track
- Bicycle Facility in Adjacent Community

SOURCE: Mission Valley Community Plan Adopted September 2019

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FIGURE 3.13-1
Bike Network
Fenton Parkway Bridge Project EIR

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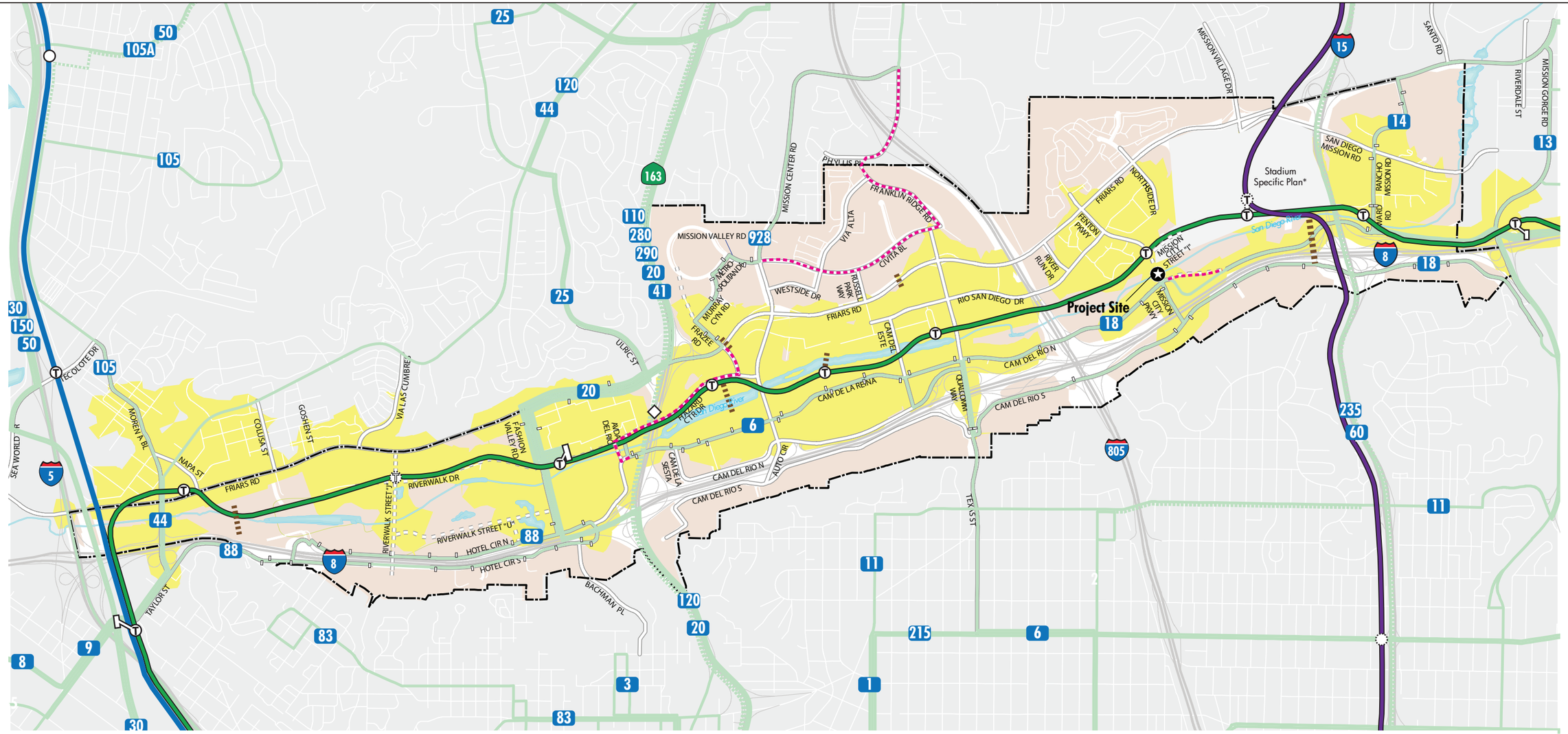

SOURCE: Mission Valley Community Plan Adopted September 2019

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FIGURE 3.13-2
Transit Facilities
Fenton Parkway Bridge Project EIR

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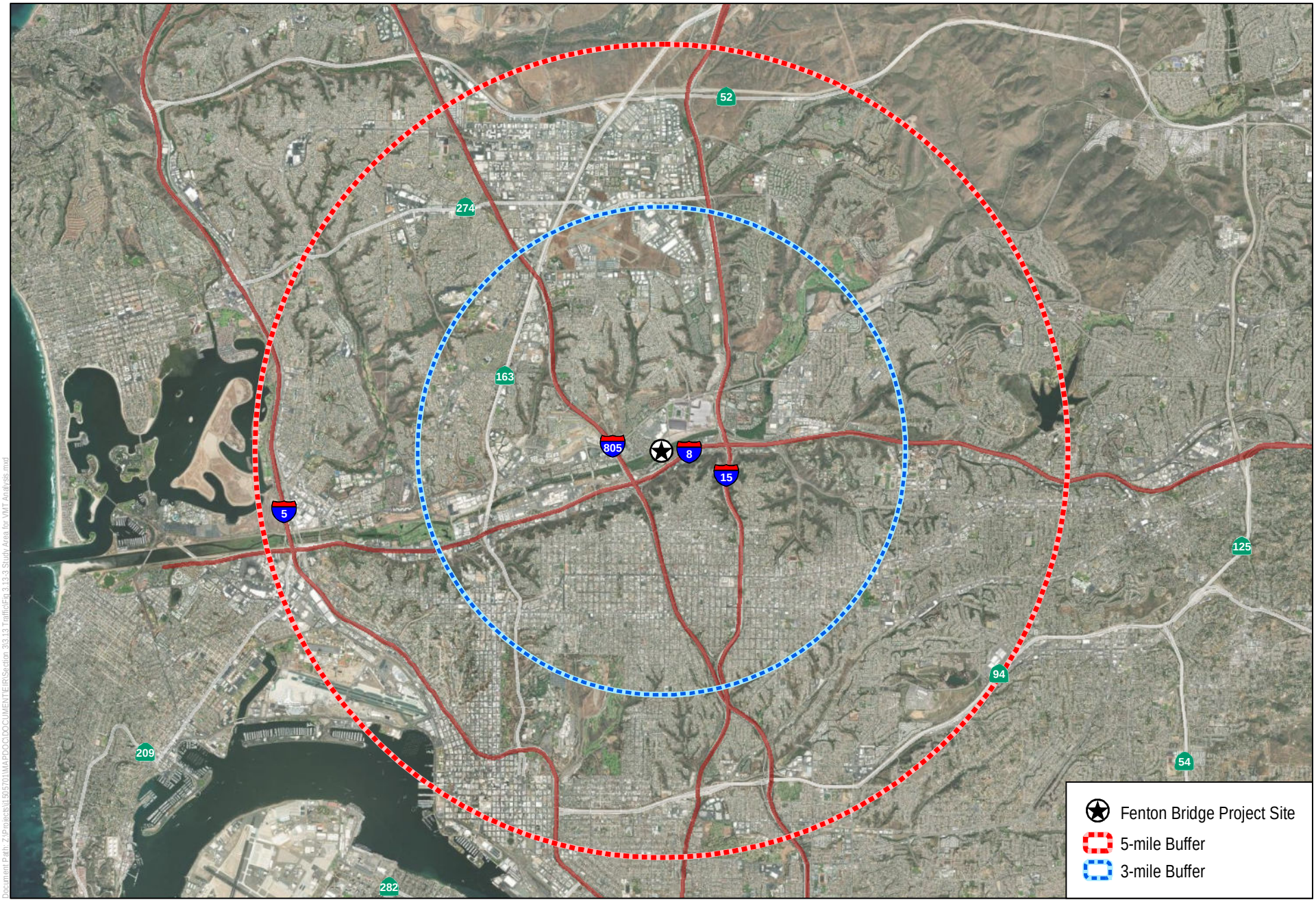

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FIGURE 3.13-3

Study Area for VMT Analysis

Fenton Parkway Bridge Project EIR

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3.14 Tribal Cultural Resources

This section describes the existing tribal cultural resources conditions of the project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Fenton Parkway Bridge Project (project).

A Notice of Preparation (NOP) was circulated from May 22, 2023, to June 20, 2023. A total of 16 letters were received during this comment period. Comments received on the NOP included requests to conduct consultation per Assembly Bill 52 and Senate Bill 18, if applicable; include an analysis of potential impacts to tribal cultural resources; and discuss feasible alternatives or mitigation measures to lessen potential impacts. Please see Appendix A, NOP and Scoping Comments, for a complete compilation of comments received on the NOP.

3.14.1 Existing Conditions

Native American Correspondence

In *EPIC v. Johnson* (1985) 170 Cal.App. 3rd 604, the court of appeals held that the Native American Heritage Commission (NAHC), as a state agency with special expertise on tribal history, has jurisdiction over Native American resources that may be affected by proposed projects, including Native American burial sites and archaeological places of religious significance to Native Americans. On behalf of San Diego State University (SDSU), Dudek requested a search of the NAHC Sacred Lands File on March 13, 2023, to determine if any tribal cultural resources are present within 1 mile of the project site. Pricilla Torres-Fuentes, NAHC cultural resources analyst, facilitated this search and returned the results on March 28, 2023. The results of the Sacred Lands File search are discussed below. As part of the consultation process, the NAHC provided a list of tribal governments and individuals that should be consulted. Dudek sent outreach letters via certified mail to all representatives listed on the NAHC list on April 28, 2023. To date, Dudek has received only one response from the NAHC outreach letters.

3.14.2 Relevant Plans, Policies, and Ordinances

Federal

The National Historic Preservation Act

The National Historic Preservation Act (NHPA) established the National Register of Historic Places (NRHP) and the President's Advisory Council on Historic Preservation and provided that states may establish State Historic Preservation Officers to carry out some of the functions of the NHPA. NHPA Section 106 directs that "the head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the NRHP." NHPA Section 106 also affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking (16 USC 470f).

Title 36 Code of Federal Regulations, Part 800, implements NHPA Section 106. It defines the steps necessary to identify historic properties (those cultural resources listed in or eligible for listing in the NRHP), including consultation with federally recognized Native American tribes to identify resources with important cultural values, to determine whether or not they may be adversely affected by a proposed undertaking and the process for eliminating, reducing, or mitigating the adverse effects. The content of Title 36 Code of Federal Regulations, Part 60.4, defines criteria for determining eligibility for listing in the NRHP. The significance of cultural resources identified during an inventory must be formally evaluated for historic significance in consultation with the Advisory Council on Historic Preservation and the California State Historic Preservation Officer to determine if the resources are eligible for inclusion in the NRHP. Cultural resources may be considered eligible for listing if they possess integrity of location, design, setting, materials, workmanship, feeling, and association.

The Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) became effective November 16, 1990. NAGPRA addresses the rights of lineal descendants, Indian tribes, and Native Hawaiian organizations to human remains and certain cultural items with which they are affiliated. NAGPRA directs federal agencies and museums to identify, in consultation with Native Americans, the cultural affiliation of Native American human remains and associated funerary objects, unassociated funerary objects, sacred objects, or objects of cultural patrimony, in holdings or collections under their possession (i.e., physical custody) or control (i.e., having sufficient legal interest). Ultimately, the intent is to repatriate the human remains and other cultural items to the appropriate lineal descendants or tribe. NAGPRA authorizes provisions for federal grants supporting activities of repatriation and outlines penalties for non-compliance and illegal trafficking of funerary or sacred items. Such civil penalties are to be assessed by the Secretary of the Interior and generally correspond with those defined in the Archaeological Resources Protection Act (ARPA).

Archaeological Resources Protection Act

ARPA requires landholding federal agencies to notify federally recognized Indian tribes before a permit is issued for archaeological excavation on sites of religious or cultural importance to them in national parks, wildlife refuges, or forests, or on Indian lands. ARPA raised the penalty for looting objects older than 100 years to $20,000 dollars for a first-time felony infraction. For a repeat infringement the fine was raised to $100,000 and up to 5 years in prison.

Federally recognized tribes must be notified 30 days before issuing a permit for excavations on public land; upon request, the federal land manager must meet with them in those 30 days to discuss their concerns. On Indian lands, tribal or individual consent must be obtained before the permit is granted. Uniform rules and regulations were published by the Departments of the Interior (43 CFR Section 7), Agriculture (36 CFR Section 296), and Defense (32 CFR Section 229), as well as the Tennessee Valley Authority (18 CFR Section 1313), in the January 6, 1984, Federal Register. Similar regulations were published for implementing ARPA on Indian lands (25 CFR Section 262) in the December 13, 1993, Federal Register.

The regulations also state that the federal agency also may notify any other Native American group known by the agency to consider the sites to be of cultural or religious importance. The intentional excavation of human remains, funerary objects, sacred objects, or objects of cultural patrimony from federal lands and tribal lands must follow both the requirements of ARPA and NAGPRA. The Bureau of Indian Affairs will issue any ARPA permits needed for excavation on private lands within the exterior boundaries of Indian reservations.

State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires that all private and public activities not specifically exempted be evaluated for their potential to cause environmental impacts. In 2014, CEQA was amended to apply to "tribal culture resources" as well. Specifically, California Public Resources Code Section 21074 provides guidance for defining TCRs as either of the following:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following: (a) Included or determined to be eligible for inclusion in the California Register of Historical Resources. (b) Included in a local register of historical resources as defined in subdivision (k) of [Section] 5020.1.
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of [Section] 5024.1. In applying the criteria set forth in subdivision (c) of [Section] 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe. (b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

Additionally, CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. If Native American human remains or related cultural material are encountered, Section 15064.5(e) of the CEQA Guidelines (as incorporated from California Public Resources Code Section 5097.98) and California Health and Safety Code Section 7050.5 define the subsequent protocol. In the event of the accidental discovery or recognition of any human remains, excavation or other disturbances shall be suspended on the site or any nearby area reasonably suspected to overlie adjacent human remains or related material. Protocol requires that a county-approved coroner be contacted in order to determine if the remains are of Native American origin. Should the coroner determine the remains to be Native American, the coroner must contact the NAHC within 24 hours. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work regarding means of treating, with appropriate dignity, the human remains and any associated grave goods, as provided in California Public Resources Code Section 5097.98 (14 CCR 15064.5[e]).

Local

Because SDSU is a component of the California State University, which is a state agency, the proposed project is not subject to local government planning and land use plans, policies, or regulations. However, for informational purposes, SDSU has considered the following planning documents and the project's location within, and relationship to, each. The proposed project would be subject to federal and state agency planning documents described above, but would not be subject to regional or local planning documents such as the City of San Diego (City) General Plan, Mission Valley Community Plan, or San Diego Municipal Code.

City of San Diego General Plan

The City's cultural resources regulations (in the Cultural Resources Management Element of the City's Progress Guide and General Plan [City of San Diego 1979]) build on federal and state cultural resources laws and guidelines in an attempt to streamline the process of considering impacts to cultural resources within the City's

jurisdiction, while maintaining that some resources not significant under federal or state law may be considered historical under the City's guidelines. In order to apply the criteria and determine the significance of potential project impacts to a cultural resource, the project's area of potential effects (APE) must be defined for both direct impacts and indirect impacts. Indirect impacts can include increased public access to an archaeological site or visual impairment of a historically significant viewshed related to a historic building or structure.

3.14.3 Significance Criteria

The significance criteria used to evaluate the project impacts to tribal cultural resources are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to tribal cultural resources would occur if the project would:

1. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
    a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).
    b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

3.14.4 Impacts Analysis

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

> ***Listed or eligible for listing in the California Register of Historical Resources (CRHR), or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?***

Pre-Cast and Cast-in-Place Construction Methods

No CRHR-listed or eligible cultural resources have been identified through the South Coastal Information Center records search or through intensive pedestrian survey of the area. The area has been substantially disturbed through the channelization of the San Diego River and is unlikely to contain intact archaeological deposits. However, due to the proximity of the proposed project to the San Diego River, the Kumeyaay trail system that extended along the San Diego River corridor, and the prehistoric village of *Nipawai/Nipaguay*, there is an increased potential for buried cultural deposits within the project area. Construction related to the proposed project may have a direct impact to previously unidentified CRHR-eligible cultural resources. Dudek recommends archaeological and Native American monitoring during initial ground-disturbing activities. Should construction or other personnel encounter any CRHR-eligible cultural resources within the project site under the pre-cast or cast-in-place method, would result in **potentially significant** impacts.

A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of the Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Pre-Cast and Cast-in-Place Construction Methods

The results of the NAHC search of the Sacred Lands File were positive, indicating that Native American resources have been reported within 1 mile of the APE. The NAHC included a list of tribal representatives who may possess tribal knowledge of the APE (Appendix D). Dudek sent outreach letters via certified mail to all representatives listed on the NAHC list on April 28, 2023. All representatives listed on the NAHC contact list received letters.

To date, Dudek has received only one response from the NAHC outreach letters. Ray Teran, resource manager of the Viejas Band of Kumeyaay Indians, wrote a response letter to Dudek indicating that the "project site has cultural significance or ties to Viejas." Viejas also states that cultural resources have been located within or adjacent to the project APE. Mr. Teran requested that a Kumeyaay Cultural Monitor be on site during ground-disturbing activities and that the monitor inform Viejas of any inadvertent cultural discoveries. Mr. Teran did not indicate the location of any known tribal cultural resources.

Campo Band of Kumeyaay Indians did not write a letter in response to the outreach, but they did request consultation, which was completed on June 21, 2022. The San Pasqual Band of Mission Indians also requested consultation; however, when asked about dates to conduct the consultation, they never responded.

In accordance with Assembly Bill 52 under CEQA, the lead agency must consult with Native American tribes. Via certified mail, on May 22, 2023, SDSU sent project notification letters to those on the distribution list it maintains of concerned Native American representatives (Appendix D). Tribal consultation in accordance with Assembly Bill 52 was formally concluded on [insert date] when SDSU e-mailed letters to the Campo Band of Kumeyaay Indians and San Pasqual Band of Mission Indians detailing communications during the consultation process and indicating the formal conclusion of consultation.

Through NAHC outreach letters, one tribal representative stated that cultural resources have been identified adjacent to or within the proposed project APE; however, no specific locations were identified and the tribal representative recommended monitoring, not avoidance. Assembly Bill 52 consultation with tribal representatives concluded on March 11, 2024. Because construction related to the proposed project may have a direct impact to previously unidentified tribal cultural resources, the project would be required to include archaeological and Native American monitoring during initial ground-disturbing activities. Should construction or other personnel encounter any archaeological or tribal cultural resources material within the project site under the pre-cast or cast-in-place method, would result in potentially significant impacts.

3.14.5 Cumulative Impacts

Would the project result in a cumulative impact related to tribal cultural resources?

Although no tribal cultural resources have been identified within the APE, the area is considered sensitive for potential tribal cultural resources (i.e., cultural resources and/or subsurface deposits, cultural views/landscapes, or sacred values). Therefore, there is the potential for inadvertent discovery of resources that could be impacted by project implementation due to the existing conditions and anticipated grading activities and excavation depths.

Implementation of Mitigation Measure (MM) CUL-1, as detailed in Section 3.4, Cultural Resources, would reduce potential impacts to unknown tribal cultural resources to below a level of significance. There is the potential for nearby cumulative projects to have adverse affects on tribal cultural resources. However, per Assembly Bill 52 and Senate Bill 18, all projects would be required to conduct consultation with the tribes in order to determine the level of potential impacts that could occur with implementation of the projects. Similar to the proposed project, cumulative projects would be required to implement appropriate mitigation measures and analyze feasible alternatives in order to reduce tribal cultural resources impacts to less than significant. Therefore, when considered with other foreseeable projects, impacts to tribal cultural resources would **not be cumulatively considerable**.

3.14.6 Summary of Impacts Prior to Mitigation

Impacts to tribal cultural resources would be **potentially significant** prior to mitigation.

3.14.7 Mitigation Measures

MM-CUL-1, as detailed in Section 3.4, would be required to be implemented.

3.14.8 Level of Significance After Mitigation

With implementation of MM-CUL-1, impacts to tribal cultural resources would be **less than significant with mitigation**.

3.15 Utilities and Service Systems

This section describes the existing utilities conditions of the project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Fenton Parkway Bridge Project (project).

A Notice of Preparation (NOP) was circulated from May 22, 2023, to June 20, 2023. A total of 16 letters were received during this comment period. Comments received on the NOP included requests for a revised discussion on this City's water supply. Please see Appendix A, NOP and Scoping Comments, for a complete compilation of comments received on the NOP.

3.15.1 Existing Conditions

The project site is served by the public utilities identified in Table 3.15-1 and discussed in detail below.

Table 3.15-1. Utilities Providers for the Project Area

Utility	Agency/Provider
Water Supply	City of San Diego Public Utilities Department
Wastewater Collection and Conveyance	City of San Diego Public Utilities Department (Wastewater Branch)
Wastewater Treatment	City of San Diego Public Utilities Department (Wastewater Branch)
Stormwater Conveyance	City of San Diego Transportation and Storm Water Department (Stormwater Division)
Solid Waste Collection	City of San Diego Environmental Services
Electrical Service	San Diego Gas & Electric Company
Natural Gas	San Diego Gas & Electric Company

Source: Data compiled by Dudek in 2023.

Water Supply

The following existing conditions discussion is informed by the City of San Diego (City) Final Program Environmental Impact Report for the Mission Valley Community Plan Update (SCH No. 2017071066) (City of San Diego 2019). The proposed project is geographically situated within the Mission Valley Community Plan area.

Metropolitan Water District

The Metropolitan Water District of Southern California (MWD) is Southern California's wholesale water provider. The MWD service area is approximately 5,200 square miles and includes the Counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura. There are 26 member agencies of the MWD, including 14 cities and 11 municipal water districts. MWD owns and operates the Colorado River Aqueduct, one of MWD's two main water sources. Under the priority system that governs the distribution of Colorado River water made available to California, MWD holds the fourth priority right of 550,000 acre-feet per year (afy) (MWD 2021).

MWD's second major water source is the State Water Project, owned by the State of California and operated by the California Department of Water Resources. The State Water Project's supply originates in Northern California with water captured from the Feather River Watershed behind Lake Oroville Dam. MWD is the largest, in terms of population served, of the 29 agencies that have long-term contracts for water service from the Department of Water Resources. MWD's contract with the Department of Water Resources provides for the delivery of 4,172 thousand afy, which is 46% of the total State Water Project entitlement (MWD 2021).

MWD's existing water supplies have historically been sufficient to meet demands within its service area during years of normal precipitation, and while it manages reserve supplies to account for normal drought conditions, regulatory actions have placed limitations on its ability to provide water to its member agencies. Future population growth, regulatory restrictions, increased competition for low-cost water supplies, and other factors, such as climate change, could impact MWD's ability to supply its member agencies even in normal years.

San Diego County Water Authority

The San Diego County Water Authority (SDCWA) is one of the member agencies of MWD. SDCWA is the countywide wholesaler and is made up of 24 public member agencies stretching from the United States/Mexico border to the Orange County and Riverside County borders. SDCWA owns and operates five large-diameter pipelines to deliver imported water to its member agencies. SDCWA has embarked on a multi-year emergency storage plan to provide up to 6 months of emergency water supplies in the event of a system failure or other issue with receiving imported water from MWD (SDCWA 2021).

In November 2012, SDCWA's Board of Directors approved a 30-year water purchase agreement with Poseidon Resources, a private investor-owned company, to purchase water from the proposed Carlsbad Desalination Plant. The plant and conveyance pipeline were completed in 2015 and, as of 2020, the plant is capable of producing up to 56,000 afy, which meets the water demands of approximately 400,000 people (SDCWA 2021).

The SDCWA has encouraged the development of local water supply projects, such as water recycling and groundwater projects, through the award of Local Water Supply Development incentives. The Local Water Supply Development Program sets a maximum contribution rate of $200 per acre-foot yielded by each local project. (SDCWA 2016).

City of San Diego Public Utilities Department

The City's Public Utilities Department (PUD) is one of the public member agencies of the SDCWA and serves a population of 1.33 million, which is expected to increase about 1% annually over the next 25 years. The PUD's water system extends over 404 square miles and includes both potable and recycled water facilities. The City's water system has nine reservoirs, two water reclamation plants, three water treatment plants, and 29 treated water storage facilities. The City's water system is split into three major service areas: Miramar, Alvarado, and Otay.

The Mission Valley Community Plan area lies within the PUD's Alvarado service area. The Alvarado Water Treatment Plant (WTP) was originally constructed in 1951 and has a current capacity of 224,028 afy. Of the City's nine reservoirs, the El Capitan, San Vicente, Sutherland, and Lake Murray Reservoirs (236,311 acre-feet total capacity) serve the Alvarado WTP in central San Diego. Lake Hodges Reservoir, with a total capacity of 30,251 acre-feet, is connected to Olivenhain Reservoir, which is owned by the SDCWA; water from the Lake Hodges Reservoir can be delivered to any City treatment plant. The Alvarado WTP generally serves the geographical area from National City to the San Diego River (City of San Diego 2018).

Surface Water

There are nine reservoirs that the PUD maintains and operates. These reservoirs capture surface water runoff from rainfall within local watershed and provide approximately 19% of the City's total water supply. Approximately 13% of local precipitation in the San Diego region produces surface runoff to streams that contribute to the reservoirs. Out of this runoff, approximately half evaporates during reservoir storage, and the other half is used for the municipal water supply. The majority of the runoff is produced in years when there is much greater than average rainfall. With the local climate, average rainfall is about the minimum required to saturate soils sufficiently for significant surface runoff (City of San Diego 2018). During very dry years, "the local surface water from these reservoirs produces approximately 3,000 afy, while in very wet years, the supply can increase to 50,000 afy" (City of San Diego 2021).

In addition to availability, the use of local surface water is affected by water resource management policies. Policies of the PUD require the use of local water prior to imported water in order to reduce water purchases. The PUD also operates emergency and seasonal storage programs. Emergency storage is intended to maintain an accessible amount of stored water that has the capacity to provide an uninterrupted supply of water to the City's water treatment facilities in the event that an interruption to the supply of imported water were to occur. Seasonal storage allows for the storage of surplus imported water in the wet winter season that could be used during the dry summer season. In lieu of local water, the PUD may also increase the use of imported water in the winter so local water may be saved in reservoirs or groundwater basins for summer use (City of San Diego 2018).

Table 3.15-2 examines the PUD water supplies, including surface waters, through the year of 2045. Table 3.15-3 examines the PUD water supplies during normal, single dry, and multiple dry years through the year 2045.

Table 3.15-2. Current and Projected Water Supplies

Sources	Water Supplies (afy)					
	2020	2025	2030	2035	2040	2045
Local Water Supplies						
Recycled Water	10,393	13,773	13,773	13,773	13,773	13,773
Pure Water Phase 1	NA	16,800	33,600	33,600	33,600	33,600
Pure Water Phase 2	NA	NA	NA	59,360	59,360	59,360
Local Surface Supply	19,286	22,015	22,015	22,015	22,015	22,015
City-Lake Cuyamaca Interagency Agreement	400.2	400	400	400	400	400
Groundwater	51.6	100	100	100	100	100
Subtotal Local Supplies	*30,130*	*53,088*	*69,888*	*129,248*	*129,248*	*129,248*
Purchased Water (SDCWA)	—	149,778	140,660	87,907	94,350	98,816
Total City Water Supplies	**—**	**202,865**	**210,547**	**217,156**	**223,598**	**228,065**
Estimated Water Shortages	—	0	0	0	0	0

Source: Tables 6-1, 4-5, 4-2, and 4-1 in City of San Diego 2021.
Notes: afy = acre-feet per year; NA = Not Available; SDCWA = San Diego County Water Authority.
Phase 1 of the Pure Water San Diego Program is expected to be online by March 2025 and fully implemented by 2035.

Table 3.15-3. Projected Water Supply and Demand during Normal, Single Dry, and Multiple Dry Years (afy)

	2025	2030	2035	2040	2045
Normal Years					
Supply	202,865	202,865	210,547	217,156	223,598
Demand*	202,865	210,547	217,156	223,598	228,065
Difference	0	0	0	0	0
Single Dry Year					
Supply	210,169	218,128	224,973	231,648	236,274
Demand*	210,169	218,128	224,973	231,648	236,274
Difference	0	0	0	0	0
Multiple Dry Years					
First Year					
Supply	202,865	210,547	217,156	223,598	228,065
Demand*	202,865	210,547	217,156	223,598	228,065
Difference	0	0	0	0	0
Second Year					
Supply	210,169	218,128	224,973	231,648	236,274
Demand*	210,169	218,128	224,973	231,648	236,274
Difference	0	0	0	0	0
Third Year					
Supply	210,169	218,128	224,973	231,648	236,274
Demand*	210,169	218,128	224,973	231,648	236,274
Difference	0	0	0	0	0
Fourth Year					
Supply	207,735	215,601	222,367	228,964	233,538
Demand*	207,735	215,601	222,367	228,964	233,538
Difference	0	0	0	0	0
Fifth Year					
Supply	207,735	215,601	222,367	228,964	233,538
Demand*	207,735	215,601	222,367	228,964	233,538
Difference	0	0	0	0	0

Source: Tables 6-1, 6-2, and 6-3 in City of San Diego 2021.
Note: afy = acre-feet per year.
* Water demand includes retail and wholesale, NRW, conservation, and non-potable recycled water demands.
Multiple Dry Years 1–5 are based on historical hydrological data years 2013 through 2017.

Groundwater

There are three groundwater basins in the San Diego region in which the City has rights, jurisdiction, and municipal water supply development interests. They include the San Pasqual Valley Basin, the Santee/El Monte Basin (also identified as the San Diego River Valley Basin), and the Coastal Plain of San Diego Basin (includes the Sweetwater Valley, Otay Valley, and Tijuana Basins) (City of San Diego 2021).

The San Pasqual Valley Basin is located in the northern portion of the City within the San Pasqual Valley. The groundwater sourced from this basin is the primary water supply in the valley and is mainly used for agricultural and commercial operations. The Santee/El Monte Basin is located within San Diego County but outside of the City's municipal boundary. The basin is situated in the unincorporated community of Lakeside, in the Eastern portion of the San Diego River Watershed. The basin includes the San Vicente and El Capitan Dams, both of which are owned and operated by the City. As of 2020, the groundwater available for use from the production wells in the basin was 500 afy (City of San Diego 2021). The Costal Plain of San Diego Basin is a confined aquifer in southern San Diego County. Due to high amounts of total dissolved solids, chloride concentrations, and sodium content, the available water is not suitable for potable production water or drinking water.

Tables 3.15-4 and 3.15-5 summarize historical pumping and projected future groundwater supplies for the San Vicente and El Capitan groundwater production wells located in the Santee/El Monte Groundwater Basin. Starting in 2025, production from the San Vicente and El Capitan wells is projected to be 50 afy per well (City of San Diego 2021).

Table 3.15-4. Historical Groundwater Supply (afy) to City from 2016 to 2020

Groundwater Well	2016	2017	2018	2019	2020
Santee/El Monte: San Vicente GW Production Well	0	0	0	0	0
Santee/El Monte: El Capitan GW production Well	0	18.8	38.0	25.8	51.6

Source: Table 4-2 in City of San Diego 2021.

Table 3.15-5. Projected Future Groundwater Supply (afy) to City from 2025 to 2045

	Groundwater Supply (AFY)				
Groundwater Well	2025	2030	2035	2040	2045
Santee/El Monte: San Vicente GW Production Well (Pump & Blend)	50	50	50	50	50
Santee/El Monte: El Capitan GW production Well (Pump & Blend)	50	50	50	50	50
Total	**100**	**100**	**100**	**100**	**100**

Source: Table 4-3 in City of San Diego 2021.

Stormwater

The project site is located in the San Diego River Watershed, an area of 440 square miles that drains to the San Diego River and discharges to the Pacific Ocean at the community of Ocean Beach. The City's stormwater infrastructure is not combined with the City's sewerage system. Runoff from storms travels untreated from hillsides and streets to channels and pipes that empty into creeks, streams, and rivers that eventually are deposited into the ocean. However, the City has installed dry weather interceptors that catch runoff from watered lawns, construction sites, and outdoor washing and routes it into the sewer system.

There are approximately 39,000 storm drain structures and 900 miles of storm drain pipes and channels serving 237 square miles of the City's urbanized development. The San Diego River generally flows from the northeast to the southwest through urban areas and is the project site's receiving waters. Stormwater runoff from the project site is conveyed directly to the San Diego River via a 96-inch reinforced concrete pipe storm drain located near the

northern terminus of the proposed bridge and a 54-inch storm drain along the southern terminus of the proposed bridge. As a result of the natural topography, stormwater and runoff also flow directly into the San Diego River.

Water Distribution

The PUD's water system consists of more than 3,300 miles of pipelines, including transmission lines up to 84 inches in diameter and distribution lines as small as 4 inches in diameter. Transmission lines are pipelines 16 inches and larger in diameter that convey raw water to the WTPs and convey treated water from the WTPs to treated water storage facilities. Distribution lines are pipelines 16 inches and smaller in diameter that directly service the retail users connected to a meter. In addition, the PUD maintains and operates 49 water pump stations that deliver treated water from the WTPs to more than 276,000 metered service connections in 130 different pressure zones. The PUD also maintains several emergency connections to and from neighboring water agencies, including the following:

- Santa Fe Irrigation District (Miramar WTP)
- City of Poway (Miramar WTP)
- Olivenhain Municipal Water District (Miramar WTP)
- Cal-American Water Company (Alvarado and Otay WTP)
- Sweetwater Authority (Otay WTP)
- Otay Water District (Otay WTP)

The North City Water Reclamation Plant (NCWRP) is located in the Miramar area and treats an average of 18,482 afy of wastewater, although the plant has an ultimate treatment capability of 33,604 afy. The Northern Service Area distribution system consists of 91 miles of recycled water pipeline, two reservoirs, and two pump stations, with service to 574 meters. The South Bay Water Reclamation Plant (SBWRP) is located near the international border with Mexico and treats an average of 8,961 afy of wastewater, although the plant has a treatment capability of 16,802 afy. The Southern Service Area distribution system consists of 3 miles of recycled water pipeline, one storage tank, one pump station, and seven meters. There are currently no recycled water facilities or conveyances within the Mission Valley Community Plan area.

Wastewater

The Wastewater Branch of the PUD provides wastewater collection and treatment services to the project site and area. The City wastewater system consists of two components:

- The Metropolitan Sewerage Sub-System treats the wastewater from the City and 15 other cities and districts from a 450-square-mile area. An average of 160 million gallons per day of wastewater is treated. Planned improvements will increase wastewater treatment capacity to serve an estimated population of 2.8 million through the year 2050.
- The Municipal Wastewater Collection Sub-System is responsible for the collection and conveyance of wastewater from residences and businesses in the City, serving a 330-square-mile area.

The City has four wastewater facilities including the Point Loma Wastewater Treatment Plant (WWTP), the NCWRP, the SBWRP, and the Metro Biosolids Center. The Point Loma WWTP is located approximately 9.9 miles from the project site and serves the project area. The Point Loma WWTP treats approximately 150 million gallons per day of wastewater and has a treatment capacity of 240 million gallons per day. Eventually, the wastewater currently

flowing to the Point Loma WWTP will be directed to the NCWRP where the water will be treated at a new Pure Water San Diego Program (Pure Water) facility, resulting in purified water. The SBWRP will serve as an additional Pure Water facility. Pure Water is expected to be completely online by 2035 and will reduce over 50% of the City's ocean wastewater discharges (City of San Diego 2023a). The total amounts of wastewater treated and recycled by NCWRP and SBWRP are listed in Table 3.15-6. Due to the nature of the proposed project, operation of the proposed bridge would not result in wastewater; therefore, no connections to existing wastewater infrastructure would be made.

Table 3.15-6. Wastewater Treated in 2020

Wastewater Treatment Plant	2020 afy			
	Wastewater Treated*	Discharged Treated Water	Recycled Within Service Area	Recycled Outside of Service Area
NCWRP	18,208	9,256	8,300	771
SBWRP	7,323	4,942	2,093	1,694
Total	**25,531**	**14,198**	**10,393**	**2,466**

Source: Table 4-4 in City of San Diego 2021.
Note: afy = acre-feet per year; NCWRP = North City Water Reclamation Plant; SBWRP = South Bay Water Reclamation Plant.
* Includes wastewater generated outside of water service area since wastewater service area is larger than the water service area.

Recycled Water

While the PUD has historically imported nearly all of its water from the SDCWA, it also strives to use more local surface water, recycled water, and conservation efforts to meet or offset potable demands. Recycled water is wastewater that has undergone additional treatment to make it suitable for a range of beneficial uses. Recycled water has been used in the City for almost 20 years and is produced by two water reclamation plants: the NCWRP and the SBWRP. The total wastewater treatment capacity of the two plants is 50,406 afy. Landscape irrigation continues to be the leading use of recycled water, but the customer base has become more varied over the years with an increase in the number of industrial and dual plumbed meter connections (City of San Diego 2018).

Pure Water, approved by City Council in 2014, is intended to provide a reliable drinking water supply that is locally controlled and drought proof. The program will use advanced water treatment processes to turn recycled water into water of equal or greater quality than the imported sources. The Morena Pump Station and Influent Sewers of Pure Water are planned for the westernmost edge of the Mission Valley Community Plan area and will undergo a separate environmental review process from the proposed Mission Valley Community Plan Update. Pure Water will be implemented in phases and is expected to be completed by 2035 (City of San Diego 2018).

Solid Waste

There is no existing solid waste disposal service at the project site as the project site is currently undeveloped and the San Diego River runs through it. However, waste generated in the City is typically transported to the West Miramar Sanitary Landfill, Sycamore Landfill, and Otay Landfill. The City's Environmental Services Department provides solid waste services to the project area and greater City area.

The closest landfill to the proposed project is the Miramar Landfill, located 4.65 miles north. It is located in Kearny Mesa and owned/operated by the Environmental Services Department. The Miramar Landfill has a remaining capacity of 11,080,871 cubic yards and receives approximately 870,000 tons of trash per year. At this

rate of disposal, the Miramar Landfill, which is the only City-run landfill, will likely be filled to capacity and close by 2030 (CalRecycle 2019a). Additional landfills that may serve the project area, along with their respective capacities, are listed below in Table 3.15-7 below.

Table 3.15-7. Landfill Capacity

Facility	Daily Permitted Capacity (tons)	Maximum Permitted Capacity (cubic yards)	Remaining Capacity (cubic yards)
Miramar Landfill	8,000	97,354	11,080,871
Sycamore Landfill	5,000	147,908,000	113,972,637
Otay Landfill	6,700	61,154,000	21,194,008
Borrego Springs Landfill	50	476,098	111,504
San Onofre Landfill	250	1,920,000	1,057,605
Las Pulgas Landfill	400	14,600,000	9,503,985

Source: CalRecycle 2019a–f.

Electric Power and Natural Gas

San Diego Gas & Electric Company (SDG&E) provides electric power and gas services to the San Diego area, including the project site, as well as southern Orange County. SDG&E provides services to 3.7 million consumers by way of 1.49 million electric meters and approximately 905,000 natural gas meters. In total, the SDG&E service area spans 4,100 square miles (SDG&E 2023).

3.15.2 Relevant Plans, Policies, and Ordinances

Federal

Clean Water Act

Section 303 of the Clean Water Act requires states to identify surface waters that have been impaired. Under Section 303(d), states, territories, and authorized tribes are required to develop a list of water quality segments that do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology (33 USC 1251 et seq.). Section 402 of the Clean Water Act established the National Pollutant Discharge Elimination System (NPDES) to regulate the discharge of pollutants from point sources.

State

California Recycled Water Policy

On February 3, 2009, the State Water Resources Control Board (SWRCB) adopted a statewide recycled water policy, with the ultimate goal to increase the use of recycled water from municipal wastewater sources. Included in the statewide policy is the mandate to increase the use of recycled water in California by 1.5 million afy by 2020 and by an additional 2.5 million afy by 2030 (SWRCB 2018). The plan also states that the SWRCB expects to develop other policies to encourage stormwater, surface water, and groundwater use to promote water conservation. The SWRCB adopted an amendment to the Recycled Water Policy on January 22, 2013, which establishes monitoring requirements for constituents of emerging concern in recycled municipal wastewater. On

April 8, 2019, the SWRCB adopted an additional amendment to the policy that includes numeric goals for the use of recycled water, two narrative goals to encourage recycled water use in groundwater-overdrafted and coastal areas, and annual reporting requirements statewide for the volume of recycled water produced and used, as well as the volume of wastewater treated and discharged.

Water Conservation Act of 2009

The Water Conservation Act (California Water Code Section 10608) (Senate Bill [SB] X7-7) requires all water suppliers to increase water use efficiency. This legislation sets an overall goal of reducing per capita urban water use, compared to 2009 use, by 20% by December 31, 2020. The state was required to make incremental progress towards this goal by reducing per capita water use by at least 10% on or before December 31, 2015. Each urban retail water supplier was required to develop urban water use targets and an interim urban water use target by July 1, 2011. Agricultural water suppliers were required to implement efficient water management practices including adoption of agricultural management plans by December 31, 2012, with updated plans by December 31, 2015, and every 5 years thereafter. Effective 2013, agricultural water suppliers not in compliance with these planning requirements are ineligible for state water grants or loans.

Water Supply Assessments and Written Verifications of Water Supply

State legislation has improved the link between water supply and land use planning. SB 610 (California Water Code Sections 10910 et seq.; SB 610) requires that, before approving any projects as defined in California Water Code Section 10912, any city or county acting as lead agency under CEQA must request a water supply assessment from the urban water supplier most likely to serve the project site (California Water Code Sections 10910[b], [c]). Thus, water supply assessments apply to projects proposing any of the following:

- Residential developments of more than 500 dwelling units
- Shopping centers or business establishments employing more than 1,000 persons or having more than 500,000 square feet of floor space
- Commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space
- Hotels, motels, or both, having more than 500 rooms
- Industrial, manufacturing, or processing plants or industrial parks planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area
- Mixed-use projects that include one or more of the projects specified in California Water Code Section 10912(a)
- Projects that would demand an amount of water equivalent to or greater than the amount of water required by a 500-dwelling-unit project

The water supply assessment evaluates water supplies that are or will be available in normal, single-dry, and multiple-dry years over a 20-year planning horizon and determines whether such supplies can meet existing and planned future demands, including the demand associated with a proposed project.

Urban water suppliers can use their most recent urban water management plan (UWMP) as a foundational document in completing SB 610 water supply assessments.

California Urban Water Management Planning Act

The California Urban Water Management Planning Act (California Water Code Sections 10610–10656) requires certain urban water suppliers that provide water to 3,000 or more customers, or provide over 3,000 acre-feet of water annually, to make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its customers during normal, dry, and multiple-dry years. The act requires reliability information be reported in the UWMP, which must be updated every 5 years, and describes the required contents of a UWMP, as well as how urban water suppliers should adopt and implement UWMPs.

State and local agencies and the public frequently use UWMPs to determine if agencies are planning adequately to reliably meet water demands in various service areas. As such, UWMPs serve as an important element in documenting water supply availability and reliability for purposes of complying with state laws SB 610 and SB 221, which link water supply sufficiency to certain land-use development project approvals.

Pueblo Water Rights

A Pueblo Right is the paramount right of an American city as a successor of a Spanish or Mexican pueblo to the use of water naturally occurring within the old pueblo limits for the use of the inhabitants of a city (*City of Los Angeles v. Pomeroy* [1899] 124 Cal. 597). Furthermore, the Pueblo Right is superior to every other right, including riparian and appropriative rights, and cannot be lost (City of San Diego 2015).

A Pueblo Right attaches to the use of all surface and groundwaters of the streams that flowed through an original pueblo, including their tributaries, from their source to their mouth (*City of San Diego v. Cuyamaca Water Co.* [1930] 29 Cal. 152). The City's Pueblo Rights attach to the waters of the San Diego River system, including percolating groundwater that is interconnected with the San Diego River (City of San Diego 2015).

For any source of water to which its Pueblo Right is attached, the City is entitled to take "to the extent of the needs of its inhabitants" (*Feliz v. Los Angeles* [1881] 58 Cal. 73). As a Pueblo Right water holder, the City has the highest priority right to use as much of the native flow of the San Diego River as is reasonably necessary to meet the City's present and future needs (City of San Diego 2015).

The project does not propose to divert water from the San Diego River or pump groundwater. Accordingly, it is not expected to affect the City's Pueblo Rights.

Assembly Bill 939

Assembly Bill (AB) 939 established an integrated waste management hierarchy to guide the California Integrated Waste Management Board and local agencies in the implementation of programs geared at source reduction, recycling and composting, and environmentally safe transformation and land disposal. AB 939 also included waste diversion mandates that require all cities and counties to divert 50% of all solid waste through source reduction, recycling, and composting activities (CalRecycle 2001).

Assembly Bill 75

AB 75 requires all state agencies and large state facilities to develop and implement an integrated waste management plan. AB 75 also requires all state agencies and large state facilities to divert at least 25% of their solid waste from landfills by January 1, 2002, and at least 50% on and after January 1, 2004 (CalRecycle 1997).

Assembly Bill 341

AB 341 builds from the goals and requirements of AB 939. AB 341 establishes a statewide policy goal of diverting a minimum of 75% of solid waste from landfills through source reduction, recycling, or composting by the year 2020. This bill also required the California Department of Resources Recycling and Recovery to issue a report by January 1, 2014, that included strategies, methods, and recommendations that would enable the state to reach the 75% waste diversion goal by 2020 (CalRecycle 2015).

Local

Because San Diego State University (SDSU) is a component of the California State University, which is a state agency, the proposed project is not subject to local government planning and land use plans, policies, or regulations. However, for informational purposes, the proposed project has considered these planning documents and the project site's location within, and relationship to, each. The proposed project would be subject to state and federal agency planning documents described above, but would not be subject to regional or local planning documents such as the City of San Diego General Plan (General Plan), Mission Valley Community Plan, or San Diego Municipal Code.

City of San Diego General Plan

The City General Plan's Public Facilities, Services, and Safety Element (City of San Diego 2022a) provides objectives, policies, and programs regarding utilities, including the following.

Wastewater

Policy PF-F.5 Construct and maintain facilities to accommodate regional growth projections that are consistent with sustainable development policies.

Stormwater Infrastructure

Policy PF-G.1 Ensure that all storm water conveyance systems, structures, and maintenance practices are consistent with federal Clean Water Act and California Regional Water Quality Control Board NPDES Permit Standards.

Policy PF-G.2 Install infrastructure that includes components to capture, minimize, and/or prevent pollutants in urban runoff from reaching receiving water and potable water supplies.

Policy PF-G.5 Identify and implement BMPs [best management practices] for projects that repair, replace, extend or otherwise affect the storm water conveyance system. These projects should also include design considerations for maintenance, inspection, and, as applicable, water quality monitoring.

Water Infrastructure

Policy PF-H.2 Provide and maintain essential water storage, treatment, supply facilities and infrastructure to serve existing and future development.

Policy PF-H.3 Coordinate land use planning and water infrastructure planning with local, state, and regional agencies to provide for future development, maintain adequate service levels, and develop water supply options during emergency situations.

a. Plan for a water supply and emergency reserves to meet peak load demand during a natural disaster such as a fire or earthquake.
b. Plan for water supply and emergency reserves recognizing anticipated Climate Change impacts.
c Recognize the water/energy nexus. Plan and implement water projects after consideration of their energy demands in coordination with energy suppliers to minimize and optimize the energy impact of projects.

Waste Management

Policy-I.1 Provide efficient and effective waste collection services.

a. Encourage waste reduction and recycling with source-separated collection of materials.
b. Provide space for recycling containers and efficient collection.

Policy PF-I.2 Maximize waste reduction and diversion.

a. Conveniently locate facilities and informational guidelines to encourage waste reduction, diversion, and recycling practices.
b. Operate public and private facilities that collect and transport waste and recyclable materials in accordance with the highest environmental standards.
c. Support resource recovery programs that produce soil additives, mulch, or compost from yard debris and organic waste.
d. Maximize the separation of recyclable and compostable materials.
e. Collaborate with public and private entities to support the development of facilities that recycle materials into usable products or that compost organic materials.
f. Reduce and recycle Construction and Demolition (C&D) debris. Strive for recycling of 100 percent of inert C&D materials and a minimum of 50 percent by weight of all other material.
g. Use recycled, composted, and post-consumer materials in manufacturing, construction, public facilities and in other identified uses whenever appropriate.
h. Encourage advance disposal fees to prevent the disposal of materials that cause handling problems or hazards at landfills.
i. Provide sufficient information on the movement of waste and recyclable materials to meet regulatory requirements at public and private transfer stations and materials recovery facilities to allow adequate planning.
j. Reduce subsidies to disposal and encourage incentives for waste diversion.
k. Promote manufacturer and retailer responsibility to divert harmful, reusable, and recyclable products upon expiration from the waste stream.
l. Encourage the private sector to build a mixed construction and demolition waste materials recycling facility.

m. Expand and stabilize the economic base for recycling in the local and regional economy by encouraging and purchasing products made from recycled materials.

n. Continuously assess new technologies for recycling, composting, cogeneration, and disposal to maximize efficient use of City resources and environmental protection.

Policy PF I.5 Plan for sufficient waste handling and disposal capacity to meet existing and future needs. Evaluate existing waste disposal facilities for potential expansion of sites for new disposal facilities.

Urban Water Management Plans

California law requires water agencies to update their UWMPs every 5 years. Accordingly, the City and SDCWA updated their UWMPs in 2020 to reflect new development projects and assess any ongoing water supply issues, such as drought and climate change.

In 2021, the City adopted the 2020 UWMP, which identifies projected water supplies required to meet future water demands through the year 2040 (City of San Diego 2021). According to the City's 2020 UWMP, no water shortages are forecasted through 2045 because projected potable water demands would be met using a combination of recycled water, local surface supply, groundwater, and purchased water from SDCWA (City of San Diego 2021).

The City's 2020 UWMP provides information on the City's current and future water demands and supplies, discusses the water resource challenges that the City faces, and summarizes the major water resource initiatives that the City has undertaken to ensure a safe, reliable water supply for its customers. Specifically, the plan details the City's water system, water demands, sources of water supplies, water conservation efforts, climate change impacts, energy intensity, water shortage contingency planning, and projected water supply reliability during normal/average, dry, and multi-year drought conditions (see Sections 1–10 in City of San Diego 2021).

The PUD prepared the Water Supply Assessment (WSA) for the Mission Valley Community Plan Update Project (City of San Diego 2018). The City's 2015 UWMP, which was developed in collaboration with SDCWA and adopted by the City Council in June 2016, serves as the basis for the 2018 WSA for the Mission Valley Community Plan Update. The 2018 WSA evaluates water supplies that are or will be available during normal/average year, single-dry year, and multiple-dry water years during a 20-year projection to meet the projected demands of the Mission Valley Community Plan Update, in addition to existing and planned future water demands of the PUD. The 2018 WSA covers the entire Mission Valley Community Plan area, which includes the SDSU Mission Valley Campus Master Plan project site.

In 2021, SDCWA adopted its own UWMP (SDCWA 2021). SDCWA's UWMP used the most recent regional growth forecast from the San Diego Association of Governments to calculate regional water demands. The San Diego Association of Governments' regional growth forecasts are based on population forecasts, projected housing forecasts, and other growth forecasts provided by the member cities. SDCWA's UWMP was prepared in accordance with the Urban Water Management Planning Act and includes the conservation measures, programs, and policies required by California Water Code Section 10608.36. SDCWA's UWMP serves as SDCWA's long-term planning document to ensure a reliable water supply for the San Diego region. In accordance with its Administrative Code, SDCWA also prepares annual water supply reports to provide updated information on development of local and imported water supplies.

SDCWA's UWMP provides important information on SDCWA's service area characteristics, including the region's economy and demographics, climate, population, and studies and research on climate change and water supply planning (Section 1 in SDCWA 2021). The plan describes the region's water supplies and demands (Sections 2–6 in SDCWA 2021). The plan also evaluates water quality and describes integrated regional water management planning (Sections 7–8 in SDCWA 2021). SDCWA's UWMP analyzes the region's water supply reliability in average/normal, dry-year, and multiple dry-year conditions (Section 9 in SDCWA 2021) and evaluates planning scenarios to respond to drought and climate change conditions (Section 10 in SDCWA 2021). The plan includes details on the multi-year drought affecting California since 2012 and the state's drought-related emergency regulations (Section 11 in SDCWA 2021).

City of San Diego Drought Policies

In 2011, the City implemented permanent mandatory restrictions to promote water conservation as a permanent way of life in San Diego. The following measures apply year-round, regardless of whether the City is in a drought (City of San Diego 2016):

- City of San Diego water customers must prohibit excessive irrigation and must immediately correct leaks in their private water systems.
- Customers cannot use a running hose to wash down sidewalks, driveways, parking areas, buildings, awnings, windows, tennis courts, patios or other hard surface areas, except to alleviate immediate safety or sanitation hazards.
- Overfilling of swimming pools and spas is strictly prohibited.
- All decorative water fountains must use a recirculating pump.
- Residents washing vehicles (automobiles, trucks, trailers, boats, RVs) must implement procedures to conserve water and prevent excessive runoff, such as:
  - Washing vehicles at a commercial car wash.
  - Washing vehicles on a lawn or pervious surface or directing water flow to a lawn or pervious area.
  - Damming wash water for collection and disposal to a pervious area or to the sanitary sewer.
  - Using a hose with an automatic shutoff nozzle.
  - Using a hand-held water container.
- The City will not provide new water service connections for customers using single pass-through cooling systems.
- All new conveyer car wash and commercial laundry systems connections will be required to employ a recirculating water system.
- Restaurants and other food establishments shall only serve and refill water for patrons upon request.
- Guests in hotels, motels, and other commercial lodging establishments will be provided the option of not laundering towels and linens daily.

Countywide Integrated Waste Management Plan

The Countywide Integrated Waste Management Plan consists of a Countywide Siting Element, a Countywide Summary Plan, and three elements (source reduction and recycling, household hazardous waste disposal, and non-disposal facility locations) from each. The Siting Element requires that the county's landfills demonstrate remaining capacity of at least 15 years to serve all jurisdictions. The Summary Plan contains waste management

policies and goals, and it summarizes the diversion programs at the county and local level implemented to meet and maintain the 50% diversion mandate required by AB 939 (County of San Diego 2005). The county publishes 5-year review reports for the Countywide Integrated Waste Management Plan that provide updates to goals and relevant jurisdictional information. The most recent County of San Diego Countywide Five-Year Review Report was published in June 2022; it provides jurisdictional demographic changes and waste generation rates through 2000 (County of San Diego 2022).

City of San Diego Recycling Programs

The City maintains an active, citywide recycling program governed by the City's Recycling Ordinance. The City Council initially approved the ordinance on November 20, 2007; it requires recycling of plastic, glass bottles and jars, paper, newspaper, metal containers, and cardboard (City of San Diego 2022b). The Recycling Ordinance applies to all single-family residences, apartments, and condominium complexes with 50 or more units; commercial buildings with 10,000 square feet or more; and all special events requiring a permit from the City. Effective January 1, 2010, the Recycling Ordinance applies to all apartment and condominium complexes and all commercial facilities (City of San Diego 2022b). In response to AB 341, the City updated the Recycling Ordinance, effective July 2012, requiring all privately serviced multifamily properties, commercial/business facilities, and institutions to recycle if they generate more than 4 cubic yards of waste per week (City of San Diego 2022b). Residential recyclables placed in City-issued blue collection bins are collected by Environmental Services Department staff.

The City's Construction and Demolition Debris Diversion Deposit Program is intended to increase the diversion of construction and demolition debris from landfill disposal and conserve the capacity and expand the life of Miramar Landfill. Although not applicable to SDSU, the program requires contractors applying for a building or grading permit to pay a refundable deposit at the issuance of the permit. The contractor can recover the deposit once it submits satisfactory evidence to the director of the Environmental Services Department showing that 100% (by weight) of construction or demolition debris generated by development of the proposed project was diverted to a certified recycling facility. The Environmental Services Department maintains a list of certified recycling facilities in the county (City of San Diego 2023b).

Mission Valley Community Plan

The Mission Valley Community Plan is intended to be a blueprint for future development in the Mission Valley community of San Diego, where the proposed project is located. A second Working Draft of the Mission Valley Community Plan Update was released on February 6, 2019. The Final Mission Valley Community Plan Update Program Environmental Impact Report was released on May 31, 2019, and the Final Draft Mission Valley Community Plan Update was released in July 2019 (City of San Diego 2019). The plan contains design guidelines and policies for development to implement the City's Climate Action Plan, maximize transit ridership, and increase mobility options, among others. While the Mission Valley Community Plan Update has not yet been adopted by the City, it is considered in this analysis.

3.15.3 Significance Criteria

The significance criteria used to evaluate the project impacts to utilities and service systems are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to utilities and service systems would occur if the project would:

1. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
2. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.
3. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
4. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
5. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

3.15.4 Impacts Analysis

Would the project require or result in the relocation or construction of new or expanded water, waste water treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Pre-Cast and Cast-in-Place Construction Methods

The proposed project, which involves construction and operation of a new bridge, as well as intersection and stormwater improvements, would not connect to existing infrastructure or require new infrastructure related to wastewater, natural gas, or telecommunications. However, the proposed project would connect to existing electric power infrastructure associated with intersection signals, and would modify existing stormwater drains within the project site. Specifically, two existing storm drains would require relocation and/or extension during the project's construction to accommodate storm drain outfalls into the river without impacting the bridge's structural integrity. Although wet utility extensions through the bridge are not a component of the proposed project, the bridge would include 24-inch cells that could accommodate future wet utilities.

Currently, the project site contains a 96-inch reinforced concrete pipe storm drain that is located near the northern terminus of the proposed bridge. Project activities would result in extending the storm drain south to accommodate the Fenton Parkway extension and abutments of the proposed bridge. The extension of this drain would require the removal of the existing headwall and construction of a new headwall at the end of the extended 96-inch reinforced concrete pipe storm drain.

In its current position, the 54-inch storm drain located near the southern terminus of the proposed bridge would conflict with the proposed abutment location. Therefore, project construction activities would result in relocating the storm drain west of the proposed south bridge abutment. The outlet of the storm drain would require construction of a new headwall with riprap at the outfall for erosion protection and energy dissipation.

The storm drains would be sized per the City of San Diego Drainage Design Manual, dated January 2017. Please see Figure 2-2 in Chapter 2, Project Description, for a conceptual stormwater relocation plan. SDSU would coordinate with the City and would construct and pay for these alterations to the existing stormwater infrastructure as part of the proposed project.

Off-site electrical improvements would include the installation and modification of signals and would occur at the intersections of Fenton Parkway and River Park Road, as well as Mission Parkway and Camino Del Rio North Intersection. At the Fenton Parkway and River Road Intersection, a three-way signal would be installed. Additional electrical improvements at the Mission Parkway and Camino Del Rio North Intersection would include expanding the intersection from a three-way signal-controlled intersection to a four-way signal-controlled intersection.

Because infrastructure improvements would be limited to the project site, construction BMPs would be implemented during all phases of construction for either construction method, and the project site would be restored to pre-project conditions once complete, impacts would be **less than significant**.

Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Pre-Cast and Cast-in-Place Construction Methods

The proposed project, which includes pre-cast or cast-in-place construction of a bridge and associated site improvements, would not include any habitable structures or land uses (e.g., residential, industrial, commercial) that are typically associated with a substantial increase in water use. PUD maintains and operates the City's water systems and provides water supply services to the project site and area. Project-related water use would be required during construction and for ongoing roadway maintenance, including street cleaning. During these activities, water would be trucked onto the project site; therefore, the project would not require any new water connections or expanded water service facilities. Any water used for pre-cast or cast-in-place construction purposes, such as water tanks for dust control, would be filled and operated by the designated construction personnel of the project. Ongoing street cleaning operations would be conducted by the City, in accordance with the Memorandum of Understanding. Water use for all project-related activities, including construction and street cleaning, would be drawn from the City's existing urban water supply. As stated in 3.15.1 Existing Conditions, the City's water supply consists of nine reservoirs, four water treatment plants, local groundwater, the City-Lake Cuyamaca Interagency Agreement, purchased water from the SDWCA, and, beginning in 2025, the Pure Water Program.

Based on historic and anticipated water use in the City's service area, the City's UWMP determined that there will be no anticipated water supply shortages throughout the year of 2045 during normal, dry, or multiple dry years (see Table 3.15-3) (City of San Diego 2021). In light of this determination, and given that the project is in an urban environment within the City's existing service area, would not require any new water supply connections, and would only require limited amounts of construction-related water use and occasional/sporadic water use for roadway maintenance, it is anticipated that the City would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. Impacts related to water supplies would be **less than significant**, and no mitigation is required.

Would the project result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Pre-Cast and Cast-in-Place Construction Methods

As described above, project-related water use would be required during pre-cast or cast-in-place construction, as well as for ongoing roadway maintenance, including street cleaning. During these activities, water would be trucked onto the project site, and therefore, the project would not require any new water connections or expanded water service facilities for on-site water use. Therefore, both construction methods and operation of the proposed project would not generate any demand for wastewater treatment or require new connections to the sanitary sewer system. Because the project would not generate any wastewater demand, impacts would be **less than significant**, and no mitigation is required.

Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Pre-Cast and Cast-in-Place Construction Methods

The project would not require the demolition of any built structures. However, excavated materials and other inert debris would be generated as a result of grading activities and demolition of portions of the existing roadways, a vacant lot currently unused at Camino Del Rio and Mission City Parkway for potential laydown area, a concrete headwall at the 96-inch storm drain headwall, ruderal areas, and undisturbed river/riparian areas. Pre-cast or cast-in-place construction of the project would result in 4,450 cubic yards of material export during ground improvement, excavation, grubbing/land clearing, and utilities phases. Materials generated from these activities would require export to a landfill or sent to a certified construction and demolition recycling facility consistent with City of San Diego waste management ordinances (City of San Diego Municipal Code Section 66.0601). As discussed in Section 3.15.1, there are several landfills in the area that are currently processing waste at levels below their original design capacities. Active permits for landfills in the area further indicate that area landfills have existing capacities.

Materials generated during demolition and construction would be recycled to the maximum extent possible per the City of San Diego Municipal Code Division 6: Construction and Demolition Debris Diversion Deposit Program. The City of San Diego's Environmental Services Department maintains a list of recycling facilities that indicates where different types of debris can be deposited (2024 Certified Construction and Demolition Recycling Facility Directory). The construction contractor would be responsible for determining what debris can be recycled and where it will be deposited.

Collected waste generated from pre-cast or cast-in-place construction activities, that cannot be recycled, would be transported to either the Miramar Landfill or Sycamore Canyon Landfill. The Miramar Landfill, located 4.65 miles north of the site, is nearing capacity and is expected to cease operations in 2030. In the event that Miramar Landfill closes before or during the proposed project's construction, Allied Waste would be responsible for disposing of the solid waste generated by the proposed project construction at a landfill in the region with sufficient permitted capacity. As of 2016, the Sycamore Canyon Landfill, located approximately 8 miles northeast of the site, in Santee, had a remaining capacity of approximately 148 million cubic yards, with a projected closure year of 2042 (CalRecycle 2019b). Although the Sycamore Canyon Landfill is nearing capacity as well, the county's

Five-Year Review Report (Countywide Integrated Waste Management Plan) states that the permit is anticipated to be revised and the closure date is expected to be extended (County of San Diego 2022).

Current estimates of remaining capacity, described above, suggest that sufficient available permitted capacity exists to serve the proposed project's solid waste generation during construction. In support of this available capacity, the current county Five-Year Review Report states that existing landfills have enough daily permitted disposal capacity for the next 15 years and would therefore meet state requirements of maintaining a minimum of 15 years of disposal capacity (County of San Diego 2022).

After pre-cast or cast-in-place construction is complete, operation of the proposed project would not require continuing solid waste services. Based on this information, the construction debris and solid waste generated by the project would not exceed the capacity of local infrastructure, nor would it result in the need to expand or construct new landfill facilities. Further, the project would also be required to adhere to all state and county waste management ordinances and requirements, including the development of a Construction Waste Management Plan. Therefore, impacts related to solid waste would be **less than significant**, and no mitigation would be required.

3.15.5 Cumulative Impacts

Would the project result in a cumulative impact related to utilities and service systems?

The scope of cumulative impacts to utilities and service systems is expanded to include the service areas of the utility providers serving the project site. The proposed project and future projects within the service areas of PUD and San Diego Gas & Electric Company could result in increased demand that could require the development of new facilities or expansion of existing facilities, which is a potentially significant cumulative impact. The proposed project would comply with state and local regulations pertaining to energy, water conservation, stormwater management, and waste management. The proposed project consists of a pedestrian, bicycle, and vehicular bridge, which would not require substantial amounts of energy (further described in Section 3.5, Energy) or water. The project would also not produce substantial volumes of waste, and compliance with existing regulations for diversion would minimize the materials sent to local landfills. Consequently, the potential of the proposed project would not result in a cumulatively considerable contribution to the potential cumulative impact related to the expansion of existing utility facilities. This impact would be **less than significant**.

3.15.6 Summary of Impacts Prior to Mitigation

Impacts associated with utilities would be less than significant prior to mitigation.

3.15.7 Mitigation Measures

No mitigation measures would be required.

3.15.8 Level of Significance After Mitigation

Impacts associated with utilities would be less than significant and no mitigation measures would be required.

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3.16 Wildfire

This section describes the existing wildfire conditions of the project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. Potential wildfire impacts resulting from construction and operation of the proposed project were evaluated based on a review of available resources, including documents from the City of San Diego (City) and the California Department of Forestry and Fire Protection (CAL FIRE), as well as applicable laws, regulations, guidelines, and standards related to wildfire. This section focuses on the potential effects of the proposed Fenton Parkway Bridge Project (project) on wildfire risk.

A notice of preparation (NOP) was circulated from May 22, 2023, to June 20, 2023. A total of 16 letters were received during this comment period. Comments received on the NOP included requests for analysis of emergency evacuation plans. Please see Appendix A, NOP and Scoping Comments, for a complete compilation of comments received on the NOP.

3.16.1 Existing Conditions

Regional Characteristics

Fire is a continuous threat in Southern California. A major area of concern is the wildland–urban interface (WUI), any area where urban development is located in proximity to open space or "wildland" areas. The City contains over 900 linear miles of WUI, where established development meets open space areas and canyons within urban and suburban areas. The region's climate, severe dry periods, vegetative fuel composition, and steep and varied terrain make the project region susceptible to both wildland and urban fires. The shrub-dominated plant communities occurring throughout the region are highly flammable. Vegetation adaptations to the local dry, Mediterranean climate include specialized roots, stems, and leaves. The latter two become available fuels of importance and contribute to wildfire intensity and spread. Santa Ana winds bring hot, dry desert air from the east into the region during late summer and fall, which increases wildland fire hazards during these seasons. Dry vegetation, low humidity, and high air temperature can combine to produce large-scale fire events. As Santa Ana winds blow westward toward denser development, fires driven by these winds have the potential to result in a greater risk of property damage (City of San Diego 2018).

Site Setting

The project site is located in the northeast portion of the Mission Valley Community, in the central portion of the City of San Diego metropolitan area. The project area is surrounded by major freeways (Interstate [I] 15, I-8, I-805, and State Route 163), roadways, existing urban development, and the San Diego River. Surrounding land uses include commercial and residential uses to the north, the San Diego State University (SDSU) Mission Valley development (including Snapdragon Stadium) to the northeast, office and healthcare uses to the south, and open space to the east, including the San Diego River. The San Diego River and associated southern riparian woodland habitat is located directly beneath the project site. The project site is bounded by Camino Del Rio North and Mission City Parkway to the south and Fenton Parkway to the north. City of San Diego Fire-Rescue Department (SDFD) Fire Station 45 is located approximately 0.5 miles northeast of the project site, off of Friars Road.

Existing Uses and Land Cover

Five vegetation communities/land covers were mapped within the project site. Native vegetation communities within the project site include Baccharis-dominated Diegan coastal sage scrub, Diegan coastal sage scrub, and southern cottonwood–willow riparian forest. Two land cover types—developed and unvegetated channel—occur within the project site. The acreages for these vegetation communities and land cover types are presented in Table 3.16-1, and their spatial distributions are presented on Figures 3.3-1 – View 1 through 3.3-1– View 4, Biological Resources.

Table 3.16-1. Vegetation Communities/Land Cover Types on the Project Site

Habitat Types/Vegetation Communities	Oberbauer Code	City of San Diego Habitat Tier Code	Project Site (acres)	% of Project Site
Non-Native Vegetation Community/Land Cover Types				
Developed (DEV)	12000	Tier IV	9.58	74%
Non-Vegetated Channel or Floodway (NVC)	64200	City Wetland (Natural Flood Channel)	0.04	<1%
Subtotal	*N/A*	*N/A*	*9.62*	*74%*
Native Vegetation Communities				
Baccharis-Dominated Diegan Coastal Sage Scrub (BD-CSS)	32350	Tier II	0.03	<1%
Diegan Coastal Sage Scrub (CSS)	32500	Tier II	2.05	16%
Southern Cottonwood–Willow Riparian Forest (SCWRF)	61330	City Wetland (Riparian Habitat)	1.18	9%
Subtotal	*N/A*	*N/A*	*3.27*	*26%*
Total*	**N/A**	**N/A**	**12.89**	**100%**

Note:
* Acreages may not sum due to rounding.

Detailed descriptions of the vegetation types on the project site are provided in Section 3.3, Biological Resources.

Variations in vegetative cover type and species composition have a direct effect on fire behavior. Some plant communities and their associated plant species have increased flammability based on plant physiology (resin content), biological function (flowering, retention of dead plant material), physical structure (bark thickness, leaf size, branching patterns), and overall fuel loading. Sage scrub is considered a moderately fine fuel that is loosely compacted with a moderate fuel load. Coastal scrub has a high surface area-to-volume ratio, requiring less heat to remove fuel moisture and raise fuel to ignition temperature. It is subject to early seasonal drying in the late spring and early summer but does not fully cure in the way that grasses do. Compared to chaparral, coastal scrub tends to have a lower content of volatile organic compounds. The live fuel moisture content reaches its low point in the late summer and early fall months. Dead fuels consist mainly of 1-hour and 10-hour fuel sizes, or twigs and small stems ranging from 0.25 inches to 1 inch in diameter. Coastal scrub has potential for a high rate of spread, rapid ignition, and extreme fire behavior. Southern cottonwood–willow riparian forest, which typically has higher fuel moisture content and requires more heat to ignite, has the potential for lower spread rates, but greater fire intensity. Should ignition in the San Diego River bed occur under extreme weather conditions, the scrub-riparian vegetation would be

expected to burn aggressively and possibly generate a crown fire condition, due to the presence of large amounts of biomass from dense stands of trees and exotic plants, which are extremely flammable.

Another important factor is the dynamic nature of vegetation communities. Fire presence and absence at varying cycles or regimes disrupts plant succession, setting plant communities to an earlier state where less fuel is present for a period of time as the plant community begins its succession again. High frequency of wildfires tends to convert shrublands to grasslands or maintain grasslands, while fire exclusion tends to convert grasslands to shrublands, over time. In general, biomass and associated fuel loading will increase over time, assuming that disturbance (fire, farming, or grading) or fuel reduction efforts are not implemented. It is possible to alter successional pathways for varying plant communities through manual alteration.

Weather

As with most of Southern California, regional climate in the vicinity of the project site is influenced by the Pacific Ocean and is frequently under the influence of a seasonal, migratory, subtropical high-pressure cell known as the Pacific High (WRCC 2019). Wet winters and dry summers with mild seasonal changes generally characterize the Southern California climate. This climate pattern is occasionally interrupted by extreme periods of hot weather, winter storms, or dry, easterly Santa Ana winds (WRCC 2019). Additionally, local vegetation and seasonal drying produce climatic conditions that result in fuel-driven wildfires and fire-associated climatic changes. This type of condition is referred to as a plume-dominated wildfire. Plume-dominated wildfires are fires where the energy produced by the fire in conjunction with atmospheric instability creates significant convective forces and increased winds. Such fires are extremely unpredictable, spread in various directions simultaneously, and exhibit extreme fire behavior. These fires are extremely dangerous and are often large in size.

The regional prevailing wind pattern is from the west, but the presence of the Pacific Ocean causes a diurnal wind pattern known as the land/sea breeze system. During the day, winds are typically from the west–southwest (sea), and at night, winds are from the northeast (land). During the summer season, the diurnal winds can be slightly stronger than the winds during the winter season due to greater pressure gradient forces. Surface winds can also be influenced locally by topography and slope variations. On the project site, the varied topography may affect wind velocity and patterns. The highest wind velocities are typically associated with downslope, canyon, and Santa Ana winds.

The fire season in Southern California typically starts in June, as vegetation begins to dry out after winter and spring rains, and typically ends in October, although fire weather may be present year-round (Schroeder and Buck 1970). The highest fire danger for this area coincides with the Santa Ana winds. Santa Ana wind conditions are a reversal of the prevailing southwesterly winds that usually occur on a region-wide basis during late summer and early fall. They are dry, warm winds that flow from the higher desert elevations in the north through the mountain passes and canyons. As they converge through the canyons, their velocities increase. Consequently, peak velocities are highest at the mouths of canyons and dissipate as they spread across valley floors. Santa Ana winds can reach sustained speeds of 40 mph with gusts ranging from 70 to 115 mph possible (Schroeder et al. 1964). Santa Ana winds can lead to serious fire suppression problems.

Topography

Topography influences fire risk by affecting fire spread rates. Typically, steep terrain results in faster fire spread up-slope and slower spread down-slope. Terrain that forms a funneling effect on the landscape can result in especially intense fire behavior. Conversely, flat terrain tends to have little effect on fire spread, resulting in fires that are driven by vegetation and wind.

The elevation on the project site ranges from approximately 35 feet above mean sea level to 300 feet above mean sea level. The project site includes developed areas and native habitat. The project site includes the lower floodplain of the San Diego River, developed areas associated with the SDSU Mission Valley Campus, Camino Del Rio North, and an undeveloped area south of Camino Del Rio North.

Fire History

Fire history data can provide an understanding of fire frequency, fire type, burn severity, significant ignition sources, and other information relevant to understanding the fire and fuels environment in an area. Fire history data were obtained from CAL FIRE's Fire Resource and Assessment Program (FRAP) database (CAL FIRE 2022). FRAP summarizes fire perimeter data dating to the late 1800s, but it is incomplete due to the fact that it includes only fires over 10 acres in size and has incomplete perimeter data, especially for the first half of the twentieth century (Syphard and Keeley 2016). However, the data do provide a summary of recorded fires and can be used to show whether large fires have occurred in the project area, which indicates whether they may be possible in the future.

Fire history records document 11 wildfires within 5 miles of the project site between 1935 and 2003 (CAL FIRE 2017), primarily to the north and east of the site (Figure 3.16-1, Fire History Map). No wildfires in the recorded history have burned across the project site. However, the Normal Heights Fire (1985) burned approximately 300 acres in heavy brush-covered slopes to the south of the project site. Based on a review of the fire history information, average fire return interval for the area within 5 miles of the project site is 8 years, with intervals ranging from 1 to 36 years (CAL FIRE 2017).

Fire Hazard Mapping

CAL FIRE has mapped areas of significant fire hazards in the state through FRAP. These maps designate areas of the state into different fire hazard severity zones (FHSZs). CAL FIRE uses FHSZs to classify anticipated fire-related hazards for the entire state and includes classifications for State Responsibility Areas, Local Responsibility Areas, and Federal Responsibility Areas. Fire hazard severity classifications take into account the following elements: vegetation, topography, weather, crown fire production, and ember production and movement.

A large portion of the City, even highly developed areas, is designated as a Very High FHSZ (VHFHSZ) (City of San Diego 2018). The VHFHSZ designation can be attributed to a variety of factors including highly flammable, dense, drought-adapted desert chaparral vegetation; seasonal strong winds; and a Mediterranean climate that results in vegetation drying during the months most likely to experience Santa Ana winds.

The project site is located within VHFHSZ in a Local Responsibility Area, as mapped by CAL FIRE and the SDFD (City of San Diego 2022a) (see Figure 3.16-2, Fire Hazard Severity Zones). These designations are attributable to dry vegetation slopes and the San Diego River bed beneath the project site. Because the project site is located within a

VHFHSZ, the project would be required to be constructed in accordance with Chapter 7A of the California Building Code (CBC).

Emergency Response

Emergency response plans include elements to maintain continuity of government, emergency functions of governmental agencies, mobilization and application of resources, mutual aid, and public information. Emergency response plans are maintained at the federal, state, and local levels for all types of disaster, both natural and human-caused. Local governments have the primary responsibility for preparedness and response activities.

The County of San Diego (County) has numerous levels of emergency response and evacuation plans, including the Operational Area Emergency Operations Plan, last revised in 2022. The Emergency Operations Plan is used by all key partner agencies within the County to respond to major emergencies and disasters and describes the roles and responsibilities of the County and its departments within local jurisdictions within the County (County of San Diego 2022).

In addition to the Emergency Operations Plan, the City also participates in the County's Multi-Jurisdictional Hazard Mitigation Plan, which was last revised in 2023 and identifies risks and ways to minimize damage caused by natural and human-caused disasters. Potential hazards or events that may trigger an emergency response in the County include earthquakes, tsunamis, floods, wildland fires, landslides, droughts, hurricanes, tropical storms, and freezes. Emergency response actions could also be triggered by a hazardous materials incident; water or air pollution; a major transportation accident; water, gas, or energy shortage; a health epidemic; a nuclear accident; or terrorism (County of San Diego 2023a).

The project site is located within the SDFD responsibility area. Emergency response for the project site and surrounding area is provided, initially, by the City from SDFD Station 45, located 0.9 miles northeast of the project, along Friars Road. San Diego Fire Stations 18 and 14 are also able to respond to calls near the project site and are located 3.1 and 3.5 miles away, respectively. SDFD Station 45 is equipped with a battalion chief's vehicle, fire engine, aerial fire truck, and two hazardous materials response units. Station 45 has a 4.28-square-mile service area and responds to hazardous materials incidents and fire incidents (City of San Diego 2019a). In 2019, Station 45 responded to 2,910 calls (City of San Diego 2022b). As shown in Table 3.16-2, these fire stations can respond to the project site within 7.5 minutes of receiving the 911 call in fire dispatch, which is the response time goal for urban-suburban areas according to the City of San Diego General Plan (General Plan).

Table 3.16-2. Existing Fire Stations

Station	Address/Location	Apparatus	Distance from Project Site*
45	9366 Friars Road	Battalion 4, Engine 45, Truck 45, HazMat 1, HazMat 2	0.9 miles
18	4676 Felton Street	Engine 18, Paramedic 18, OES 1	3.1 mile
14	4011 32nd Street	Engine 14, Truck 14, Brush 14	3.5 miles
17	4206 Chamoune Avenue	Engine 17	5.4 miles
23	2190 Comstock Street	Engine 23	3.5 miles
5	3902 9th Avenue	Battalion 2, Engine 5	4.4 miles
28	388 Kearny Villa Road	Engine 28, Truck 28, Crash 28, Foam 28, Water Tender 28	6.1 miles

Table 3.16-2. Existing Fire Stations

Station	Address/Location	Apparatus	Distance from Project Site*
31	2123 Fenton Parkway	Engine 31 Medic 31	6.2 miles
25	1972 Chicago Street	Battalion 3, Engine 25	6.3 miles
20	3305 Kemper Street	Engine 20, Truck 20, Medic 20	7.2 miles

Source: City of San Diego 2019b.
Note: *Distance measured from the fire station to the southern terminus of Fenton Parkway.

The SDFD provides fire response services within the City. Additionally, the SDFD has Automatic Aid agreements with jurisdictions adjacent to the City. Automatic Aid agreements ensure that the closest engine company responds to a given incident. Furthermore, the City has Mutual Aid agreements that allow the City to request additional resources from county, state, and federal agencies to meet the needs of a given incident. The SDFD is responsible for the preparation, maintenance, and execution of fire preparedness and management plans. The City's Emergency Operations Center trains City staff and outside agencies in their roles and responsibilities and coordinates operations in the event of an emergency or major event or incident (City of San Diego 2018).

Environmental Effects of Wildfires

Although fire can benefit natural ecosystems that have evolved with occasional fire and that benefit from the stimulation of growth through the reproduction of plants and wildlife habitat, fire can also be detrimental to biological and other natural resources, such as air quality and water quality.

Biological Resources

Flora. Grassland communities, usually non-native grasses, will readily establish after wildfires in chaparral and scrub communities. With repeated burning at short intervals of up to several years, it is possible to convert chaparral and scrub to non-native grasslands. Chaparral and scrub vegetation communities will typically re-sprout and, absent fire or other disturbances, will return to pre-fire conditions. Chaparral communities also tend to repopulate many of the San Diego County forest types following stand-replacing fire. The chaparral may establish for the first several years after the fire event, whereupon the tree cover will begin to establish (USDA 2000a). Because vegetation communities can be converted following fire, these changes in dominant vegetation communities can drastically affect plant and animal habitat and can affect the prevalence of special-status species.

Fauna. Generally speaking, fires injure or kill a relatively small proportion of wild animals. For example, birds and larger mammals can flee wildfire and small mammals and reptiles can seek refuge in subterranean burrows. Habitat changes resulting from fires have a much more profound impact on faunal populations and communities than do the fires themselves. Fires can result in short-term increases in vegetation productivity and the availability and nutrient content of forage and browse (USDA 2000b). These increases can in turn lead to increases in herbivore populations. However, any increase in population size is highly dependent upon the population's ability to survive in the post-fire environment (USDA 2000b). In general, fires that devastate a landscape featuring many shrubs and trees reduce habitat cover for species requiring cover and increase habitat for species (such as raptors) that prefer open areas (USDA 2000b).

Air Quality

Carbon dioxide, water vapor, carbon monoxide, particulate matter, hydrocarbons, and other constituent materials are all present in wildfire smoke. The specific composition of smoke depends largely on the fuel type (vegetation types contain different amounts of cellulose, oils, waxes, and starches, which, when ignited, produce different compounds). In addition, hazardous air pollutants and toxic air contaminants, such as benzene and formaldehyde, are also present in smoke. However, the principal pollutant of concern from wildfire smoke is particulate matter. In general, particulate matter from smoke is very small in size and can be inhaled into the deepest recesses of the lungs, presenting a serious health concern (Stone et al. 2016).

Factors including weather, stage of fire, and terrain can all dictate fire behavior and the impact of smoke on the ground. Wind, for instance, generally results in lower smoke concentrations because wind causes smoke to mix with a larger volume of air. Regional weather systems, such as the Santa Ana winds of Southern California, on the other hand, can spread fire quickly and result in numerous devastating impacts. The Santa Ana winds effectively work to reverse the typical onshore flow patterns and blow winds from dry, desert Great Basin areas westward toward the coast. As a result, coastal communities can be impacted by fires originating in inland areas (Stone et al. 2016).

Large quantities of pollutants can be released by wildland fires over a relatively short period of time. Air quality during large fires can become severely hazardous and can remain impaired for several days after the fire is ignited.

Water Quality

Fire can impact water quality by increasing potential for erosion and sedimentation in areas where vegetation has been burned by fire or resulting in increased water temperature through removal or drastic modification of shade-providing trees and vegetation. Water chemistry can also be altered through the introduction of pollutants and chemical constituents. Aquatic environments may also be impacted through the introduction of fire retardant chemicals used during firefighting activities.

Erosion and Sedimentation. Watersheds severely burned by wildfire are vulnerable to accelerated rates of soil erosion and can experience large amounts of post-fire sediment deposits. Increases in post-fire suspended sediments in streams and lakes (in addition to possible increases in turbidity) can result from erosion and overland flow, channel scouring, and creep accumulations in stream channels after an event (USDA 2005). While less is known regarding the effect of fire on turbidity, it has been observed that post-fire turbidity levels in stream water are affected by the steepness of the devastated watershed (USDA 2005). The little data available regarding post-fire turbidity levels have indicated that the U.S. Environmental Protection Agency water quality standard for turbidity can be exceeded after a fire event (USDA 2005). The threat to water quality from erosion following wildfire was analyzed by CAL FIRE (2009). This analysis estimates an expected erosion rate if an area experiences a high severity fire and considers information on fire rotation to better identify locations that are more likely to experience frequent high severity fires (CAL FIRE 2010).

Water Temperature. When fire burns stream bank vegetation and shade trees, water temperature can rise, which in turn can lead to thermal pollution, which leads to increased biological activity in the stream. Increased activity levels place a greater demand on the dissolved oxygen content of the water and can affect the survivability and sustainability of aquatic populations and communities (USDA 2005). Water temperature increases up to 62°F have been recorded in stream flows following fires in which the stream bank vegetation was burned (USDA 2005).

Water Chemistry. Ash deposits generated by a fire can affect the pH of water immediately after the event, potentially increasing it to levels that violate water quality standards. In addition, increases in the pH of nearby soil can also cause increases in stream flow pH (USDA 2005). Dissolved nitrogen levels can increase after fires as a result of accelerated mineralization and nitrification (dissolved nitrogen is commonly studied as an indicator of fire disturbance), but these levels do not typically exceed established water quality standards (USDA 2005). Dissolved phosphorous, sulfur, chloride, and total dissolved solids levels can increase after a fire, but studies have shown that these increases typically do not result in violation of drinking water quality standards (USDA 2005).

Fire Retardant. The use of fire retardants to protect communities, sensitive resources, or other assets has proven highly effective, but it can have a direct effect on aquatic environments. The use of ammonium-based retardants can affect water quality and, in some instances, can be toxic to aquatic biota (USDA 2005). Nitrogen-containing retardants can potentially affect drinking water quality, and retardants containing sodium ferrocyanide can potentially be lethal for aquatic organisms (USDA 2005).

3.16.2 Relevant Plans, Policies, and Ordinances

Federal

National Fire Protection Association Codes, Standard, Practices, and Guides

National Fire Protection Association codes, standards, recommended practices, and guides are developed through a consensus standards development process approved by the American National Standards Institute. This process brings together professionals representing varied viewpoints and interests to achieve consensus on fire and other safety issues. National Fire Protection Association standards are recommended guidelines and nationally accepted good practices in fire protection but are not law or codes unless adopted as such or referenced as such by the California Fire Code (CFC) or the local fire agency.

National Fire Plan

The National Fire Plan was a presidential directive in 2000 as a response to severe wildland fires that had burned throughout the United States. The National Fire Plan focuses on reducing fire impacts on rural communities and providing assurance for sufficient firefighting capacity in the future. The plan addresses five key points: Firefighting, Rehabilitation, Hazardous Fuels Reduction, Community Assistance, and Accountability. The plan continues to provide invaluable technical, financial, and resource guidance and support for wildland fire management across the United States. The U.S. Forest Service and the Department of the Interior are working to successfully implement the key points outlined in the plan (USFS 2019).

International Fire Code

Created by the International Code Council, the International Fire Code addresses a wide array of conditions hazardous to life and property including fire, explosions, and hazardous materials handling or usage. The International Fire Code places an emphasis on prescriptive and performance-based approaches to fire prevention and fire protection systems. Updated every 3 years, the International Fire Code uses a hazards classification system to determine the appropriate measures to be incorporated in order to protect life and property (often times these measures include construction standards and specialized equipment). The International Fire Code uses a permit system (based on hazard classification) to ensure that required measures are instituted.

International Wildland-Urban Interface Code

The International Wildland–Urban Interface Code is published by the International Code Council and is a model code addressing wildfire issues. The International Wildland–Urban Interface Code establishes minimum requirements for land use and the built environment in designated WUI areas using prescriptive and performance-related provisions. It is founded on data collected from tests and fire incidents, technical reports, and mitigation strategies from around the world. The 2021 edition is fully compatible with all the international codes published by the International Code Council and is updated every 3 years. The International Wildland-Urban Interface Code is used in a variety of ways in both the public and private sectors. The purpose of this code is to establish minimum regulations consistent with nationally recognized good practice for safeguarding life and protecting property. The provisions of this code apply to construction, alteration, movement, repair, maintenance, and use of any building, structure, or premises within the WUI areas in the jurisdiction.

State

California Building Code

Chapter 7A of the CBC applies to building materials, systems, and/or assemblies used in the exterior design and construction of new buildings located within a WUI fire area. The purpose of this chapter is to establish minimum standards for the protection of life and property by increasing the ability of a building located in any FHSZ within State Responsibility Areas or any WUI fire area to resist the intrusion of flames or burning embers projected by a vegetation fire and to contribute to a systematic reduction in conflagration losses. New buildings located in such areas shall comply with the ignition-resistant construction standards outlined in CBC Chapter 7A.

California Fire Code

The CFC is contained within Title 24, Chapter 9, of the California Code of Regulations. Based on the International Fire Code, the CFC is created by the California Buildings Standards Commission and regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. Similar to the International Fire Code, the CFC and CBC use a hazards classification system to determine the appropriate measures to protect life and property.

Where a bridge or an elevated surface is part of a fire apparatus access road, such as the proposed project, the bridge shall be constructed and maintained in accordance with the American Association of State Highway and Transportation Officials HB-17. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, approved barriers, approved signs, or both shall be installed and maintained when required by the Fire Code Official.

Because Fenton Parkway Bridge will serve as a fire apparatus access road, the bridge shall follow the Fire Apparatus Access Road requirements and recommendations outlined in Section 503 of the 2022 CFC, including but not limited to dimensions and road surface requirements.

California Public Resources Code

California Public Resources Code, Section 4290, requires minimum fire safety standards related to defensible space that are applicable to State Responsibility Areas and lands classified and designated as VHFHSZs. The regulations in this code include all of the following: road standards for fire equipment access; standards for signs

identifying streets, roads, and buildings; minimum private water supply reserves for emergency fire use; and fuel breaks and green belts.

Fire Hazard Severity Zoning

CAL FIRE mapped FHSZs in the County based on fuel loading, slope, fire weather, and other relevant factors as directed by California Public Resources Code, Sections 4201–4204, and Government Code, Sections 51175-51189. FHSZs are ranked from moderate to very high and are categorized for fire protection within a Federal Responsibility Area, State Responsibility Area, or Local Responsibility Area under the jurisdiction of a federal agency, CAL FIRE, or local agency, respectively. As noted above, the project site is located within and adjacent to a VHFHSZ (see Figure 3.16-2) in a Local Responsibility Area.

California Strategic Fire Plan

The 2018 Strategic Fire Plan for California reflects CAL FIRE's focus on (1) fire prevention and suppression activities to protect lives, property, and ecosystem services and (2) natural resource management to maintain the state's forests as a resilient carbon sink to meet California's climate change goals and to serve as important habitat for adaptation and mitigation. The Strategic Fire Plan provides a vision for a natural environment that is more fire resilient, buildings and infrastructure that are more fire resistant, and a society that is more aware of and responsive to the benefits and threats of wildland fire, all achieved through local, state, federal, tribal, and private partnerships (CAL FIRE 2018). Plan goals include the following (CAL FIRE 2018):

1. Identify and evaluate wildland fire hazards and recognize life, property and natural resource assets at risk, including watershed, habitat, social and other values of functioning ecosystems. Facilitate the collaborative development and sharing of all analyses and data collection across all ownerships for consistency in type and kind.
2. Promote and support local land use planning processes as they relate to: (a) protection of life, property, and natural resources from risks associated with wildland fire, and (b) individual landowner objectives and responsibilities.
3. Support and participate in the collaborative development and implementation of local, county and regional plans that address fire protection and landowner objectives.
4. Increase fire prevention awareness, knowledge and actions implemented by individuals and communities to reduce human loss, property damage and impacts to natural resources from wildland fires.
5. Integrate fire and fuels management practices with landowner/land manager priorities across jurisdictions.
6. Determine the level of resources necessary to effectively identify, plan and implement fire prevention using adaptive management strategies.
7. Determine the level of fire suppression resources necessary to protect the values and assets at risk identified during planning processes.
8. Implement post-fire assessments and programs for the protection of life, property, and natural resource recovery.

California Emergency Services Act

The California Emergency Services Act was adopted to establish the state's roles and responsibilities during human-caused or natural emergencies that result in conditions of disaster and/or extreme peril to life, property, or resources of the state. This act is intended to protect health and safety by preserving the lives and property of the people of the state.

California Natural Disaster Assistance Act

The California Natural Disaster Assistance Act provides financial aid to local agencies to assist in the permanent restoration of public real property, other than facilities used solely for recreational purposes, when such real property has been damaged or destroyed by a natural disaster. The California Natural Disaster Assistance Act is activated after a local declaration of emergency and the California Emergency Management Agency gives concurrence with the local declaration, or after the governor issues a proclamation of a state emergency. Once the act is activated, the local government is eligible for certain types of assistance, depending on the specific declaration or proclamation issued.

Local

Because SDSU is a component of the California State University, which is a state agency, the proposed project is not subject to local government planning and land use plans, policies, or regulations. As such, the 2022 CFC and CBC would be enforced from the authority of the California Office of the State Fire Marshal, per Title 24, Part 9, Chapter 1, Section 1.11.2.1.1. However, for informational purposes, SDSU has considered the following planning documents and the project site's location within, and relationship to, each. The proposed project would be subject to state and federal agency planning documents described above but would not be subject to regional or local planning documents such as the City's General Plan, Mission Valley Community Plan, or San Diego Municipal Code.

City of San Diego General Plan

The Conservation Element (City of San Diego 2008a), Urban Design Element (City of San Diego 2008b), and Public Facilities, Services, and Safety Element (City of San Diego 2018) of the City's General Plan contain policies that pertain to wildfire hazards and emergency response in the City, including the following:

Policy CE-B.6. Provide an appropriate defensible space between open space and urban areas through the management of brush, the use of transitional landscaping, and the design of structures. Continue to implement a citywide brush management system.

Policy UD-A.3. Design development adjacent to natural features in a sensitive manner to highlight and complement the natural environment in areas designated for development.

a. Integrate development on hillside parcels with the natural environment to preserve and enhance views, and protect areas of unique topography.
b. Minimize grading to maintain the natural topography, while contouring any landform alterations to blend into the natural terrain.
c. Utilize variable lot sizes, clustered housing, stepped-back facades, split-level units or other alternatives to slab foundations to minimize the amount of grading.

d. Consider terraced homes, stepped down with the slope for better integration with the topography to minimize grading in sensitive slope areas.

e. Utilize a clustered development pattern, single-story structures or single-story roof elements, or roofs sloped toward the open space system or natural features, to ensure that the visibility of new developments from natural features and open space areas are minimized.

f. Provide increased setbacks from canyon rims or open space areas to ensure that the visibility of new development is minimized.

g. Screen development adjacent to natural features as appropriate so that development does not appear visually intrusive, or interfere with the experience within the open space system. The provision of enhanced landscaping adjacent to natural features could be used to soften the appearance of or buffer development from the natural features.

h. Use building and landscape materials that blend with and do not create visual or other conflicts with the natural environment in instances where new buildings abut natural areas. This guideline must be balanced with a need to clear natural vegetation for fire protection to ensure public safety in some areas.

i. Ensure that the visibility of new development from natural features and open space areas is minimized to preserve the landforms and ridgelines that provide a natural backdrop to the open space systems. For example, development should not be visible from canyon trails at the point the trail is located nearest to proposed development. Lines-of-sight from trails or the open space system could be used to determine compliance with this policy.

j. Design and site buildings to permit visual and physical access to the natural features from the public right-of-way.

k. Encourage location of entrances and windows in development adjacent to open space to overlook the natural features.

l. Protect views from public roadways and parklands to natural canyons, resource areas, and scenic vistas.

m. Preserve views and view corridors along and/or into waterfront areas from the public right-of-way by decreasing the heights of buildings as they approach the shoreline, where possible.

n. Provide public pedestrian, bicycle, and equestrian access paths to scenic view points, parklands, and where consistent with resource protection, in natural resource open space areas.

o. Provide special consideration to the sensitive environmental design of roadways that traverse natural open space systems to ensure an integrated aesthetic design that respects open space resources. This could include the use of alternative materials such as “quiet pavement” in noise sensitive locations, and bridge or roadway designs that respect the natural environment.

p. Design structures to be ignition and fire-resistant in fire prone areas or at-risk areas as appropriate. Incorporate fire-resistant exterior building materials and architectural design features to minimize the risk of structure damage or loss due to wildfires.

Policy PF-D.1. Locate, staff, and equip fire stations to meet established response times as follows:

a. To treat medical patients and control small fires, the first-due unit should arrive within 7.5 minutes, 90 percent of the time from the receipt of the 911 call in fire dispatch. This equates to 1-minute dispatch time, 1.5 minutes company turnout time and 5 minutes drive time in the most populated areas.
b. To provide an effective response force for serious emergencies, a multiple-unit response of at least 17 personnel should arrive within 10.5 minutes from the time of 911-call receipt in fire dispatch, 90 percent of the time.
    - This response is designed to confine fires near the room of origin, to stop wildland fires to under 3 acres when noticed promptly, and to treat up to 5 medical patients at once.
    - This equates to 1-minute dispatch time, 1.5 minutes company turnout time and 8 minutes drive time spacing for multiple units in the most populated areas.

Policy PF-D.12. Protect communities from unreasonable risk of wildfire within very high fire hazard severity zones.

a. Assess site constraints when considering land use designations near wildlands to avoid or minimize wildfire hazards as part of a community plan update or amendment. (see also LU-C.2.a.4)
b. Identify building and site design methods or other methods to minimize damage if new structures are located in very high fire hazard severity zones on undeveloped land and when rebuilding after a fire.
c. Require ongoing brush management to minimize the risk of structural damage or loss due to wildfires.
d. Provide and maintain water supply systems to supplies for structural fire suppression.
e. Provide adequate fire protection. (see also PF-D.1 and PF-D.2)

Policy PF-D.13. Incorporate fire safe design into development within very high fire hazard severity zones to have fire-resistant building and site design, materials, and landscaping as part of the development review process.

a. Locate, design and construct development to provide adequate defensibility and minimize the risk of structural loss from wildland fires.
b. Design development on hillsides and canyons to reduce the increased risk of fires from topography features (i.e., steep slopes, ridge saddles).
c. Minimize flammable vegetation and implement brush management best practices in accordance with the Land Development Code.
d. Design and maintain public and private streets for adequate fire apparatus vehicles access (ingress and egress), and install visible street signs and necessary water supply and flow for structural fire suppression.
e. Coordinate with the Fire-Rescue Department to provide and maintain adequate fire breaks where feasible or identify other methods to slow the movement of a wildfire in very high fire hazard severity zones.

Policy PF-D.14. Implement brush management along City maintained roads in very high fire hazard severity zones adjacent to open space and canyon areas.

Policy PF-D.15. Maintain access for fire apparatus vehicles along public streets in very high fire hazard severity zones for emergency equipment and evacuation.

Brush Management and Weed Abatement Program

In February 2008, the SDFD expanded the City's Proactive Brush Management Program to cover the entire City. This program requires that brush be managed on properties within WUI areas in the City, in accordance with the City's Brush Management Policy. Annual brush inspections are conducted on properties on canyon rim that have been identified in the Proactive Brush Management Program (SDFD 2015). Additionally, privately owned vacant lots are inspected yearly to ensure compliance with the CFC (City of San Diego 2019c).

City of San Diego Brush Management Policy and Landscape Standards

The City's Brush Management Policy and Landscape Standards were adopted in April 2008 and updated in May 2010. This policy regulates the construction, alteration, movement, repair, maintenance, and use of any building, structure, or premises within the WUI areas in the City. It requires that a Brush Management Plan and Program be processed in conjunction with any development that is required to obtain discretionary grading and/or building permits. The policy also includes requirements for thinning and pruning native/naturalized vegetation within WUI areas and allowable coverage, massing, and spacing for plants that would be retained. If the full brush management zones cannot be provided, the policy requires that alternative means of fire protection, including fire-rated construction, be identified by the SDFD and implemented.

San Diego Fire-Rescue Department Fire Access Roadways Policy

The SDFD has adopted the Fire Access Roadways Policy to clarify requirements outlined in CFC Section 503. Fire access roadways for new and existing buildings are regulated by this policy. The policy requires buildings to be accessible to emergency vehicles. Under this policy, fire apparatus access roadways shall not be less than 20 feet of unobstructed width, shall have an adequate roadway turning radius, and shall have a minimum vertical clearance of 13 feet 6 inches.

County of San Diego Multi-Jurisdictional Hazard Mitigation Plan

The County Multi-Jurisdictional Hazard Mitigation Plan is implemented by the County Office of Emergency Services. The Multi-Jurisdictional Hazard Mitigation Plan is a County-wide plan that identifies risks posed by natural and human-caused disasters and discusses ways to minimize potential damage occurring as a result of these disasters. The plan is intended to serve many purposes, including enhancing public understanding and awareness of potential hazardous situations, creating a decision tool for managing hazards, promoting compliance with state and federal program requirements, enhancing local policies for hazard mitigation capability, providing inter-jurisdictional coordination, and achieving regulatory compliance (County of San Diego 2023b).

Operational Area Emergency Operations Plan

The Office of Emergency Services implements the Operational Area Emergency Operations Plan in collaboration with the Unified San Diego County Emergency Services Organization. The plan is for use by the County and all of the cities within the County to respond to major emergencies and disasters. It describes the roles and

responsibilities of all County departments (including many city departments), as well as the relationship between the County and its departments and the jurisdictions within the County. The plan contains 16 annexes detailing specific emergency operations for different emergency situations (County of San Diego 2022).

3.16.3 Significance Criteria

The significance criteria used to evaluate the project impacts to wildfire are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to wildfire would occur if the project would:

1. Substantially impair an adopted emergency response plan or emergency evacuation plan.
2. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
3. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
4. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

3.16.4 Impacts Analysis

Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

An emergency plan describes a comprehensive emergency management system that provides for the planned response to disaster situations associated with natural disasters, technological incidents, terrorism, and nuclear-related incidents. The County and all cities within the County use the Operational Area Emergency Operations Plan to respond to major emergencies and disasters. The plan identifies a broad range of potential hazards and a response plan. Primary evacuation routes identified in the plan consist of the major interstates, highways, and prime arterials within the County (County of San Diego 2022). The primary evacuation route nearest to the project site is I-15, the entrance to which is located approximately 1.6 miles northeast of the project site. From I-15, I-8 and I-805 may be accessed. I-15 connects to I-8 approximately 1 mile south of the I-15 entrance, and I-8 connects to I-805 approximately 1 mile west of the I-15 and I-8 junction. However, as noted in the plan, specific evacuation routes would be determined based on the location and extent of the incident and would include as many predesignated transportation routes as possible (County of San Diego 2018).

The City of San Diego Office of Homeland Security oversees the City's Emergency Prevention and Protection Program, Mitigation and Finance Program, Response and Recovery Program, and Regional Training Program. Through these programs, the Office of Homeland Security supports and coordinates numerous risk management planning efforts; trains City employees; assists with the integration of emergency plans; ensures information flow to the public to assist in their emergency preparation and response; interfaces with County of San Diego, state, and federal jurisdictions; maintains the City's two Emergency Operations Centers; and secures grants from state and federal agencies related to homeland security (City of San Diego Office of Homeland Security 2017).

Since the project would also involve construction of the approach roadways (Fenton Parkway and River Park Road) in addition to the bridge itself, traffic controls would need to be implemented during the process in order to maintain the safety of the construction workers, as well as to avoid impeding the flow of traffic. Project construction activities could affect the flow of traffic if either of the adjacent roadways were being used for evacuation routes. Between

I-15 and I-805, there is currently no existing roadway infrastructure providing direct north–south access from Camino Del Rio North to uses on the north side of the San Diego River. The proposed project would connect the southern terminus of Fenton Parkway to the northern terminus of Camino Del Rio North/Mission City Parkway. The project would include a 10-foot center lane that would provide an optional additional traffic lane during stadium or emergency events. Therefore, the project could potentially improve acceptable response times for local fire service provision and evacuation conditions.

In response to a comment on this project from the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife, the City provides a case for the Fenton Parkway Bridge connection to provide improved police, fire-rescue, lifeguard/swift-water rescue, and ambulance emergency response times, as well as improved emergency transport times to hospitals. Mobility connection in the location would reduce the risk that an area of the community would become inaccessible and improve access to the surrounding areas north and south of the San Diego River. Additionally, the bridge connection location would improve the ability for fire stations to serve a greater area when multiple stations are responding to incidents and/or covering adjacent districts. The bridge connection location would provide multiple approach route options for emergency response and alternate routes for diverting traffic during emergencies that close roads. This planned connection is particularly important because there are often multiple responders to an incident who need access from different directions to the area and stage.

The proposed Fenton Parkway Bridge will serve as an additional access option to protect City-owned land in the VHFHSZ for which the City is financially responsible for fire suppression and response. Additional access provides the option for emergency response improvements to known areas surrounded by canyons that have had a previous large or historic wildfire event. New access, response routes, and earlier deployment of resources may prevent loss of life and property and protect environmentally sensitive lands and habitats (see Figure 3.16-1 and Figure 3.16-3, Eco Canyons).

The proposed location of the Fenton Parkway Bridge would improve circulation near communities with one emergency ingress and community evacuation route. SDFD, in coordination with CAL FIRE, has identified one or more communities as at-risk through the Assembly Bill 2911 Subdivision Review Program (see Figure 3.16-4, Communities With Only One Evacuation Route). Surrounding communities would benefit from improvements related to emergency response time, access, and additional emergency evacuation/ingress options provided by the proposed project. See Appendix A to review the full letter from the City to U.S. Fish and Wildlife Service and California Department of Fish and Wildlife.

Additionally, the project would provide improved access south of Snapdragon Stadium. The nearby Snapdragon Stadium parking lot and parking areas along River Park Road have been used for disaster response staging, such as during firestorm emergencies, over the last two decades.

It is not anticipated that any road closures would be necessary for the construction of the bridge. Existing travel lanes on Camino Del Rio North may be shifted or narrowed to accommodate bridge construction and replacement/relocation of traffic signal poles, curbs, gutters, and sidewalks. The majority of construction activity would occur outside of existing roadways. However, targeted lane closures to complete the traffic signal and striping adjustments at Camino Del Rio North at Mission City Parkway are anticipated. Temporary traffic control measures (e.g., lane closures, signage) would be provided during such closures, as well as around identified construction laydown/staging areas. The contractor would be required to coordinate any resulting lane closures during construction with local emergency service providers to provide access during the event of an emergency. The contractor would also be required to coordinate with the City regarding requirements for traffic control measures to be implemented during construction.

With the improved north–south connectivity across the river for emergency access and evacuation made possible by the construction of the project, and with implementation of traffic management during construction, impacts related to emergency response and evacuation would be **less than significant**.

Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The project consists of development of a bridge and nearby road improvements and would not include any habitable structures or permanent project occupants. The VHFHSZ associated with the San Diego River area that passes directly below the project site contains natural vegetation and subtle changes in elevation in the river basin that contribute to the VHFHSZ designation. Wildfire may occur in off-site areas adjacent to the project site, such as in the San Diego River riparian areas, wildland areas near the project site, and in the vegetated hillsides south of the project site, located south of I-8.

While the project site is designated as a VHFHSZ within a Local Responsibility Area, there are several characteristics of the project site that reduce its susceptibility to wildfire hazards. I-8 is an approximately 210-foot-wide, 12-lane freeway that separates the project site from the potentially flammable vegetated hillsides to the south. This roadway would serve as a buffer between the project site and a potential wildfire burning south of the project site. SDFD Station 45 is also located approximately 0.9 miles away from the project site, minimizing emergency response times.

As noted in Section 3.6, Geology and Soils, the topography of the project site includes the San Diego River channel and two adjacent relatively flat to gently sloping bluff areas on the north and south sides of the river. The river channel bottom is approximately 400 feet wide, with a steep, approximately 20-foot-high riverbank on the south side of the river and a less steep, approximately 10-foot-high riverbank on the north side, which transitions into a gentle, approximately 10-foot-high slope up to River Park Road. A south-trending incised drainage, which empties into the river, is located on the north side of the river. Section 3.2, Air Quality, notes that the direction of prevailing winds in the San Diego region is westerly to northwesterly, and that the interaction of ocean, land, and the Pacific High-Pressure Zone influences the direction of these prevailing winds. The project area is also subject to seasonal Santa Ana wind conditions, which increase wildfire risk.

Construction

As noted, the project site is located within a VHFHSZ, and project construction activities would introduce new potential sources of ignition to the project site, including heat or sparks from construction equipment or vehicles, as well as the use of flammable materials, which have the potential to ignite adjacent vegetation and start a fire, especially during weather events that include low humidity and high wind speeds that are typically experienced in the summer and fall, but can occur year-round in the San Diego region. Construction activity occurring over the San Diego River could be subject to increased ignition potential resulting from construction equipment due to the proximity of native vegetation communities. The following construction-related equipment and practices have the potential to generate heat or sparks that could result in wildfire ignition:

- Earth-moving and excavating equipment, chainsaws and other small gas-powered equipment and tools can cause sparks, which serve as a source of fire ignition.
- Tractors, graders, mowers, bulldozers, backhoes, cranes, excavators, trucks, and vehicles may result in heated exhaust which, if it came into contact with vegetation, may result in fire ignition.

- Welders consist of an open heat source, which may result in metallic sparks, which could ignite vegetation.
- Accidental ignitions by construction personnel.

Project occupants during construction would consist of construction workers who would be on site temporarily. Because the project would introduce new ignition sources within a VHFHSZ, construction of the project would result in a **potentially significant** impact related to exacerbating wildfire risk.

Operation

The proposed project would construct a bridge over the San Diego River to provide improved north–south mobility in eastern Mission Valley. Along the northern and southern boundaries, the project site abuts existing developed roads. The connection of these two roads would increase roadway connectivity. Once operational, the project would not have any permanent project occupants, and would be used as a functional roadway. The bridge would include vehicle traffic lanes, and bicycle and pedestrian pathways. Motorists, bicyclists and pedestrians would be on site temporarily as they pass through the project site. The bridge and adjacent road improvements would be constructed in accordance with the Fire Apparatus Access Road requirements and recommendations outlined in Section 503 of the 2022 CFC. To reduce risk of roadside vegetation and brush from catching fire, the City amended CFC Section 304.1.2.1, Clearance of Brush and Vegetative Growth from Roadways, to require 10 feet on each side of portions of fire apparatus access roads and driveways to be cleared of non-fire-resistive vegetation growth. Additional clearance of brush or other combustible vegetation adjacent to the roadway provides a safer access route. The proposed bridge would be elevated above existing vegetation within the San Diego River.

Once operational, the proposed project would not exacerbate the risk of fire ignition and/or spread and any related exposure of project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. With adherence to the CFC, operational impacts of the project would be less than significant.

Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Pre-Cast and Cast-in-Place Construction Methods

The project is a long-sought infrastructure enhancement in the Mission Valley community as a means of connecting residents and businesses south of the San Diego River to land uses north of the river off Friars Road. While the project location is within a VHFHSZ in a Local Responsibility Area, the proposed project would comply with all applicable CFC requirements for development in a VHFHSZ, including, but not limited to, specific requirements for construction methods, access requirements, and vegetation management. The proposed project would also facilitate access for responding fire agency personnel and project maintenance staff by increasing accessibility of the areas both north and south of the river. Project construction would result in the need to relocate existing storm drains. Additionally, the bridge would include 24-inch cells that could accommodate potential future wet utilities extensions (extensions are not currently proposed as part of the project). Installation and maintenance of relocated storm drains and utility cells within the bridge have been analyzed as part of the project herein. The project would not result in additional temporary or permanent impacts beyond those identified in this EIR, and impacts to the environment resulting from installation and maintenance of the project would be less than significant. The project would not induce population growth or result in the need for new or expanded roads, fuel breaks, emergency water sources, power lines, or other utilities. Nonetheless, project construction activities associated with the installation

and maintenance of associated infrastructure would introduce new potential ignition sources in a VHFHSZ, which could increase the risk of wildfire. As such, impacts related to exacerbating wildfire risk during the installation or maintenance of associated infrastructure would be **potentially significant.**

Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Pre-Cast and Cast-in-Place Construction Methods

Vegetation plays a key role in maintaining slope stability. Plant roots stabilize the soil and aboveground plant parts slow water, allowing it to percolate into the soil. Removal of surface vegetation reduces the ability of the soil surface to absorb rainwater and can allow for increased runoff that may include large amounts of debris. If hydrophobic conditions exist after a fire, the rate of surface water runoff is increased as water percolation into the soil is reduced (Moench and Fusaro 2012). The potential for surface runoff and debris flows therefore increases significantly for areas recently burned by large wildfires (Moench and Fusaro 2012).

Slope failures, mudflows, and landslides are common in areas where steep hillsides and embankments are present and such conditions would be exacerbated in a post-fire environment where vegetative cover has been removed. As Section 3.6 discusses, slope stability measures and ground improvements would be taken during the construction of the bridge and its north and south abutments. Increases in surface runoff and erosion are also possible in a post-fire environment where surface vegetation has been removed and steep slopes can increase runoff flow velocity. As discussed in Section 3.9, Hydrology and Water Quality, bridge construction would result in an increase in impervious surfaces of 26,100 square feet. Additional impervious surfaces would be created for the adjoining roadway runup areas. However, as illustrated in Figure 2-3, stormwater runoff on the bridge would be directed to the north side of the bridge and into a proposed detention basin, which would reduce stormwater runoff velocities. From the detention basin, stormwater runoff would be routed through a storm drain extension, which would flow over riprap, which would further reduce stormwater velocities and minimize the potential for off-site flooding within the riverbed. As a result, proposed increases in impervious surfaces would not result in flooding on or off site. Post-fire conditions are not expected to increase risks associated with runoff and erosion. No wildfires have burned on site in recent years, so there is no potential for post-fire slope instability. Additionally, CAL FIRE mapping data indicate very low post-fire erosion threat potential for the project site or the immediate surrounding area (Figure 3.16-5, Post-Fire Soil Erosion).

Considering the project site's terrain and proximity of hillsides and with implementation of project grading, construction, and erosion control best management practices, potential impacts associated with runoff, post-fire slope instability, or drainage changes would be **less than significant**.

3.16.5 Cumulative Impacts

Would the project result in a cumulative impact to wildfire?

The cumulative context considered for project wildfire impacts is the Mission Valley area of San Diego County, and more specifically, those areas within very high FHSZs. As discussed in Section 3.16.1, CAL FIRE has mapped areas of fire hazards in the state through its FRAP, based on fuels, terrain, weather, and other relevant factors.

As described above, the project site is located within a VHFHSZ within a Local Responsibility Area. The proposed project, combined with other projects in the region, would have the potential to increase the population and/or activities and ignition sources in the Mission Valley area, which may increase the chances of a wildfire and increase the number of people and structures exposed to risk of loss, injury, or death.

Individual projects (where a state or federal agency is not the project proponent) located within VHFHSZs in the City are required to comply with applicable City building codes, which have been increasingly strengthened as a result of severe wildfires that have occurred in the last two decades in the San Diego area. The fire and building codes include fire prevention and protection features that reduce the likelihood of a fire igniting on a specific project and spreading to off-site vegetated areas. These codes also protect projects from wildfires that may occasionally occur in the area through implementation of brush management/fuel management zones, ensuring adequate water supply, preparation of fire protection plans, and other measures. Particularly fire-prone projects may also enter into a Fire Service Agreement, which results in additional project-provided funding to the fire agencies to augment response capabilities. Fire agencies such as the SDFD use the funding to provide the personnel and apparatus needed to respond to the types of emergencies that will be generated from the cumulative projects. The fire and building codes and funding stream are intended to offset the potential impacts so that fire service can be provided and people and structures are not exposed to significant risk of loss, injury, or death involving wildland fires.

Furthermore, other cumulatively considerable projects within VHFHSZs would be required to comply with the City's vegetation clearance requirements and the City's Brush Management Policy and Landscape Standards to reduce the fuel load on vacant and developed properties in the City. The San Diego County Fire and Building codes, along with project-specific needs assessments and fire prevention plan requirements, ensure that every project approved for construction includes adequate emergency access. Roads are required to meet widths, have all-weather surface, and be capable of supporting the imposed loads of responding emergency apparatus. Therefore, cumulative impacts related to wildfire hazards and emergency response and access would be **less than significant.**

3.16.6 Summary of Impacts Prior to Mitigation

Impacts related to impairing an adopted emergency response plan or evacuation plan would be **less than significant**. **Potentially significant** impacts related to exacerbating wildfire risk and exposing project occupants to wildfire or wildfire pollutants could occur during project construction. **Potentially significant** impacts related to exacerbating wildfire risk could occur during the installation and maintenance of associated infrastructure. Impacts related to runoff, post-fire slope instability, or drainage changes would be **less than significant**.

3.16.7 Mitigation Measures

The following mitigation measures would be implemented to reduce all impacts described in this section to levels below significance.

MM-WF-1 Pre-Construction Requirements. The following pre-construction requirements shall be implemented. These features shall be coordinated with the San Diego Fire-Rescue Department (SDFD) or their designee prior to commencing project construction.

- Existing flammable vegetation shall be cleared from staging areas, the project site, and bridge column locations prior to commencement of construction.
- Dead fuel, ladder fuel (fuel which can spread fire from the ground to trees), and downed fuel shall be removed, and trees/shrubs shall be properly limbed, pruned, and spaced.
- A response map update, including roads and fire hydrant locations, in a format compatible with current SDFD mapping, shall be provided to the SDFD.

Construction Requirements. The following construction requirements shall be implemented. These features shall be coordinated with the SDFD or their designee.

- Throughout the duration of construction, the construction contractor shall ensure that adequate access is provided for emergency vehicles during all construction phases.
- Throughout the duration of construction, the construction contractor shall ensure that adequate water supply for firefighting is available during all phases of construction.
- The construction contractor shall ensure the implementation of all construction-phase vegetation clearance prior to commencing construction activities.

Construction Fire Prevention Plan. Prior to commencement of construction activities, the California State University/San Diego State University or its designee shall develop a Construction Fire Prevention Plan that addresses training of construction personnel and provides details of fire-suppression procedures and equipment to be used during construction. Information contained in the plan shall be included as part of project-related environmental awareness training. At minimum, the plan shall include the following:

- Procedures for minimizing potential ignition, including, but not limited to, vegetation clearing, parking requirements/restrictions, idling restrictions, smoking restrictions, proper use of gas-powered equipment, use of spark arrestors, and hot work restrictions
- Work restrictions during Red Flag Warnings and High to Extreme Fire Danger days
- Fire coordinator role and responsibility
- Worker training for fire prevention, initial attack firefighting, and fire reporting
- Emergency communication, response, and reporting procedures
- Coordination with local fire agencies to facilitate agency access through the project site
- Emergency contact information
- Demonstrate compliance with applicable plans and policies established by state agencies

3.16.8 Level of Significance After Mitigation

Impacts related to impairing an adopted emergency response plan or evacuation plan would be **less than significant** and no mitigation is required.

Anticipated impacts to wildfire risk during project construction would be potentially significant because project construction activities have the potential to generate heat or sparks that could result in wildfire ignition within a VHFHSZ**.** The potential risk of wildfire ignition and spread associated with construction of the proposed project can be managed and pre-planned so that the potential for vegetation ignition along the San Diego River interface is reduced. With the pre-construction requirements outlined in Mitigation Measure (MM) WF-1, prior to beginning project construction, adequate water shall be available to service construction activities; a construction-phase fire prevention plan shall be developed; wildfire awareness, reporting, and suppression training shall be provided to construction personnel; and all combustible vegetation shall be removed from staging areas and within the City's Stadium Wetland Mitigation Site (no credit area). Implementation of MM-WF-1 would result in lower probability of ignition and higher probability of fire control and extinguishment in its incipient stages.

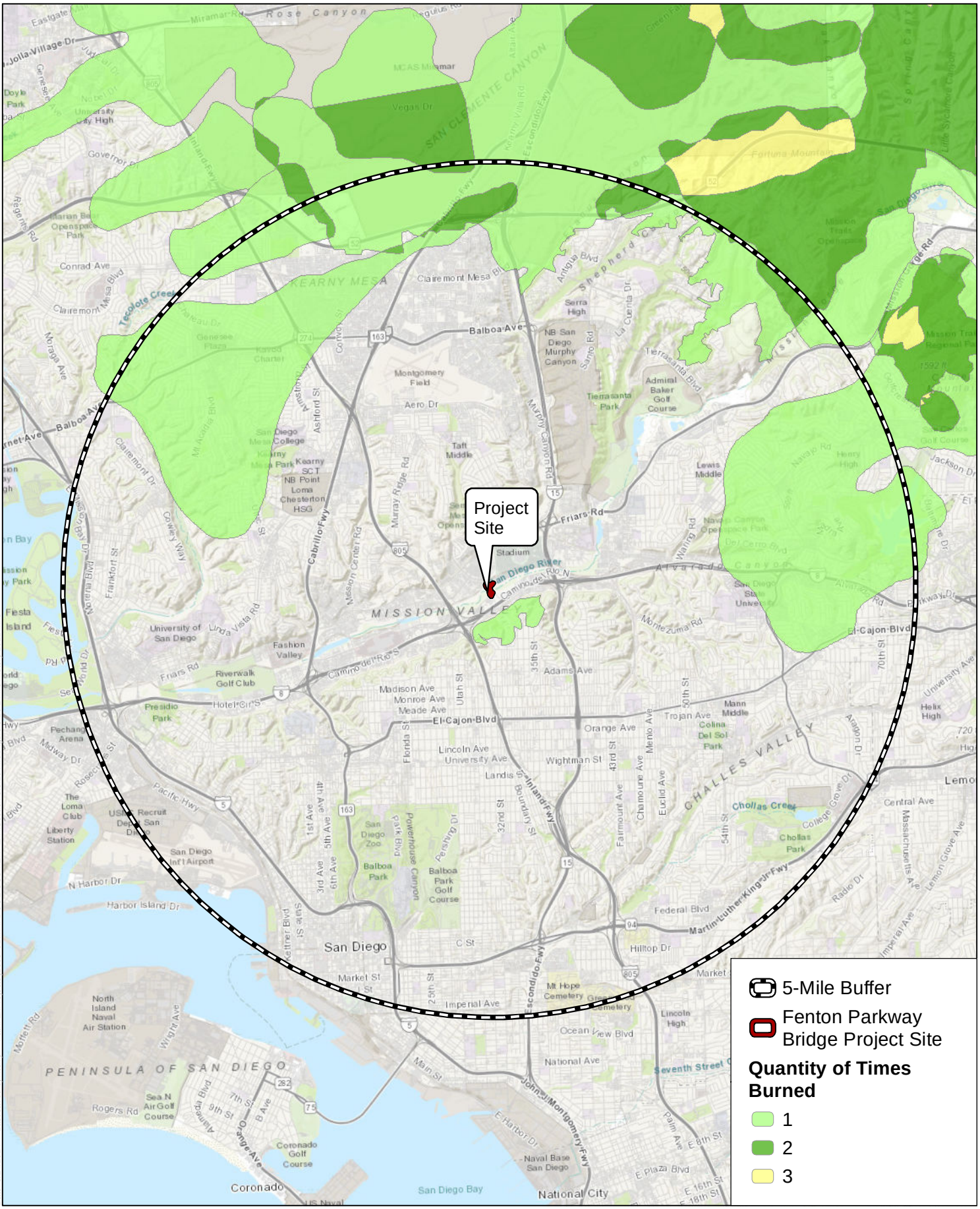
Vegetation management would also reduce the risk of wildfire spreading from within the active construction areas to off-site fuel beds. Provided site improvements and vegetation management requirements are appropriately implemented and approved by SDFD, construction activities are not anticipated to exacerbate wildfire risk such that project workers would be exposed to the uncontrolled spread of a wildfire or pollutant concentrations from a wildfire. Therefore, with implementation of MM-WF-1, construction impacts would be **less than significant with mitigation**.

The installation and maintenance of associated infrastructure would have the potential to exacerbate wildfire risk, as construction activities would introduce new potential ignitions sources in a VHFHSZ. The project would adhere to state and local regulations regarding fire safety, and MM-WF-1 would be implemented to further reduce fire risk. MM-WF-1 addresses pre-construction and construction requirements for fire safety. As discussed above, MM-WF-1 requires that prior to beginning project construction, adequate water shall be available to service construction activities; a construction-phase fire prevention plan shall be developed; wildfire awareness, reporting, and suppression training shall be provided to construction personnel; and all combustible vegetation shall be removed from staging areas and within the City's Stadium Wetland Mitigation Site (no credit area). Implementation of MM-WF-1 would reduce wildfire hazards during project construction to less than significant. With compliance with the CFC and implementation of MM-WF-1, impacts would be **less than significant with mitigation**.

Impacts related to runoff, post-fire slope instability, or drainage changes would be **less than significant** and no mitigation is required.

Cumulative

Consistency with San Diego County Fire and Building Codes and the San Diego Municipal Code would ensure that anticipated impacts associated with cumulative wildfire impacts would be **less than significant.**


Project Site
5-Mile Buffer
Fenton Parkway Bridge Project Site
Quantity of Times Burned
1
2
3
MISSION VALLEY
KEARNY MESA
PENINSULA OF SAN DIEGO
CHOLLAS VALLEY
SAN CLEMENTE CANYON
Rose Canyon
San Diego
Coronado
National City
San Diego Bay
Balboa Ave
Friars Rd
El Cajon Blvd
Claremont Mesa Blvd
Clairemont Mesa Blvd
Genesee Ave
Governor Dr
Miramar Rd
Pacific Hwy
Harbor Island Dr
N Harbor Dr
Midway Dr
Rosecrans St
Sports Arena Blvd
Morena Blvd
Frankfort St
Cabrillo Fwy
Mission Center Rd
Murray Ridge Rd
Murphy Canyon Rd
Camino del Rio S
Camino del Rio N
Mission Gorge Rd
Waring Rd
Fashion Valley
Riverwalk Golf Club
Presidio Park
Hotel Circle S
University of San Diego
Linda Vista Rd
Montezuma Rd
Adams Ave
Madison Ave
Monroe Ave
Meade Ave
Lincoln Ave
University Ave
Wightman St
Orange Ave
Trojan Ave
Landis St
Inland Fwy
Boundary St
Florida St
Utah St
35th St
43rd St
Fairmount Ave
Chamoune Ave
Menio Ave
Euclid Ave
50th St
54th St
70th St
Mann Middle
Colina Del Sol Park
Chollas Creek
Chollas Park
Central Ave
Lemon Grove Ave
Massachusetts Ave
College Grove Dr
Aragon Dr
University Ave
Helix High
Lewis Middle
Taft Middle
Kearny SCT
NB Point Loma Chesterton HSG
San Diego Mesa College
Kearny Mesa Park
Montgomery Field
Aero Dr
Ashford St
Convoy St
Clairemont Dr
Balboa Ave
Serra High
NB San Diego Murphy Canyon
Tierrasanta Blvd
Tierrasanta Park
Admiral Baker Golf Course
Antigua Blvd
Shepherd Canyon
La Cuenta Dr
Santo Rd
Jackson Dr
Navajo Rd
Henry High
Stadium
San Diego River
Alvarado Canyon Rd
San Diego State University
Del Cerro Blvd
Navajo Canyon Open Space Park
Tecolote Creek
Conrad Ave
Regents Rd
Marian Bear Memorial Park
Genesee Plaza
Kaiser Permanente
Morena Blvd
Mt Acadia Blvd
Claremont Dr
Convoy Hwy
Balboa Ave
Rose Canyon
Eastgate
La Jolla Village Dr
Nobel Dr
University City High
Doyle Park
Governor Dr
Inland Fwy
MCAS Miramar
Vegas Dr
Escondido Fwy
Kearny Villa Rd
Fortuna Mountain
Spring Canyon
Little Sycamore Canyon
San Diego River
Mission Trails Regional Park
Mission Trails Openspace
Mission Gorge Rd
Jackson Dr
Lake Murray Blvd
Golf Course
Fiesta Island
Sea World Dr
Ingraham St
Midway Dr
Rosecrans St
Pechanga Arena
The Loma Club
Liberty Station
USS Recruit Depot San Diego
San Diego Int'l Airport
Pacific Hwy
1st Ave
4th Ave
5th Ave
6th Ave
3rd Ave
Kettner Blvd
India St
San Diego Zoo
Balboa Park
Powerhouse Campus
Pershing Dr
Balboa Park Golf Course
Park Blvd
32nd St
Boundary St
Inland Fwy
Landis St
Wightman St
Lincoln Ave
University Ave
Florida St
Utah St
Meade Ave
Monroe Ave
Madison Ave
Presidio Park
Hotel Circle S
Riverwalk Golf Club
Fashion Valley
Linda Vista Rd
University of San Diego
Friars Rd
Camino del Rio S
Camino del Rio N
Mission Valley
Stadium
San Diego River
Cabrillo Fwy
Mission Center Rd
Murray Ridge Rd
Murphy Canyon Rd
Friars Rd
Waring Rd
Navajo Canyon Open Space Park
Del Cerro Blvd
Alvarado Canyon Rd
San Diego State University
Montezuma Rd
Adams Ave
35th St
El Cajon Blvd
Madison Ave
Monroe Ave
Meade Ave
Lincoln Ave
University Ave
Orange Ave
Trojan Ave
Wightman St
Landis St
Inland Fwy
Boundary St
Florida St
Utah

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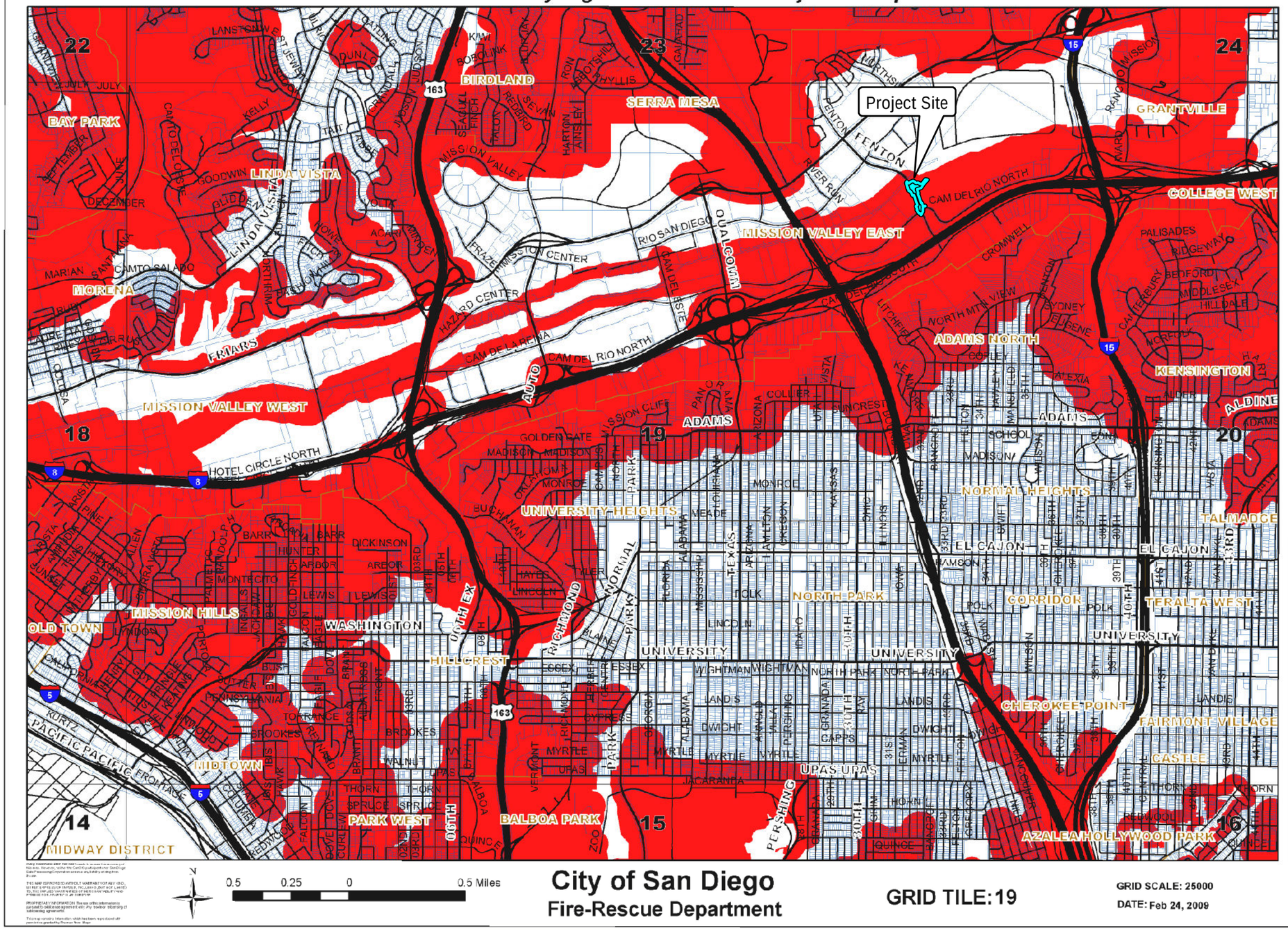
Official Very High Fire Hazard Severity Zone Map

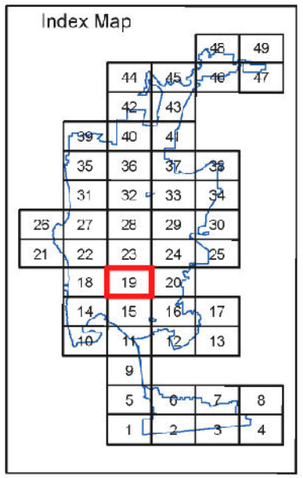


Legend

- Roads
- Federal Land
- City of San Diego Boundary
- Parcels
- VHFHSZ & 300' Brush Buffer

To view the details of this map, please visit the City of San Diego Fire-Rescue Website at www.sandiego.gov/fireandems/forms/map.shtml. Each map may be viewed as a PDF with Adobe Reader. Zoom in to 400% or larger to see the map in greater detail.

Index Map



N

0.5 0.25 0 0.5 Miles

City of San Diego
Fire-Rescue Department

GRID TILE: 19

GRID SCALE: 25000
DATE: Feb 24, 2009

SOURCE: BASEMAP-CITY OF SAN DIEGO DOWNLOADED OCTOBER 2020

FIGURE 3.16-2
Fire Hazard Severity Zones
Fenton Parkway Bridge Project EIR

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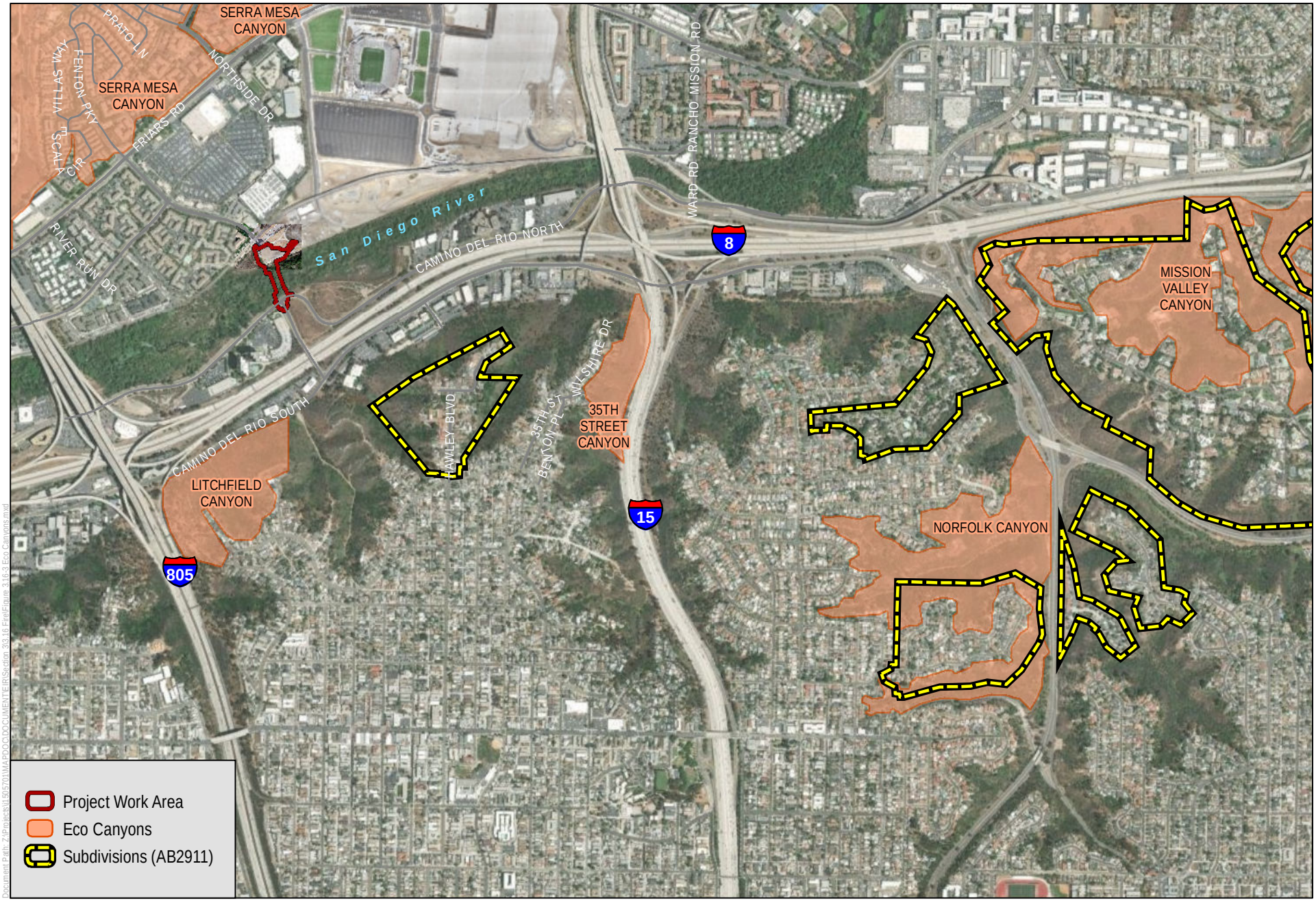

SOURCE: SANGIS IMAGERY 2023, CITY OF SAN DIEGO 2024

DUDEK

N

0 750 1,500 Feet

FIGURE 3.16-3

Eco Canyons

Fenton Parkway Bridge Project EIR

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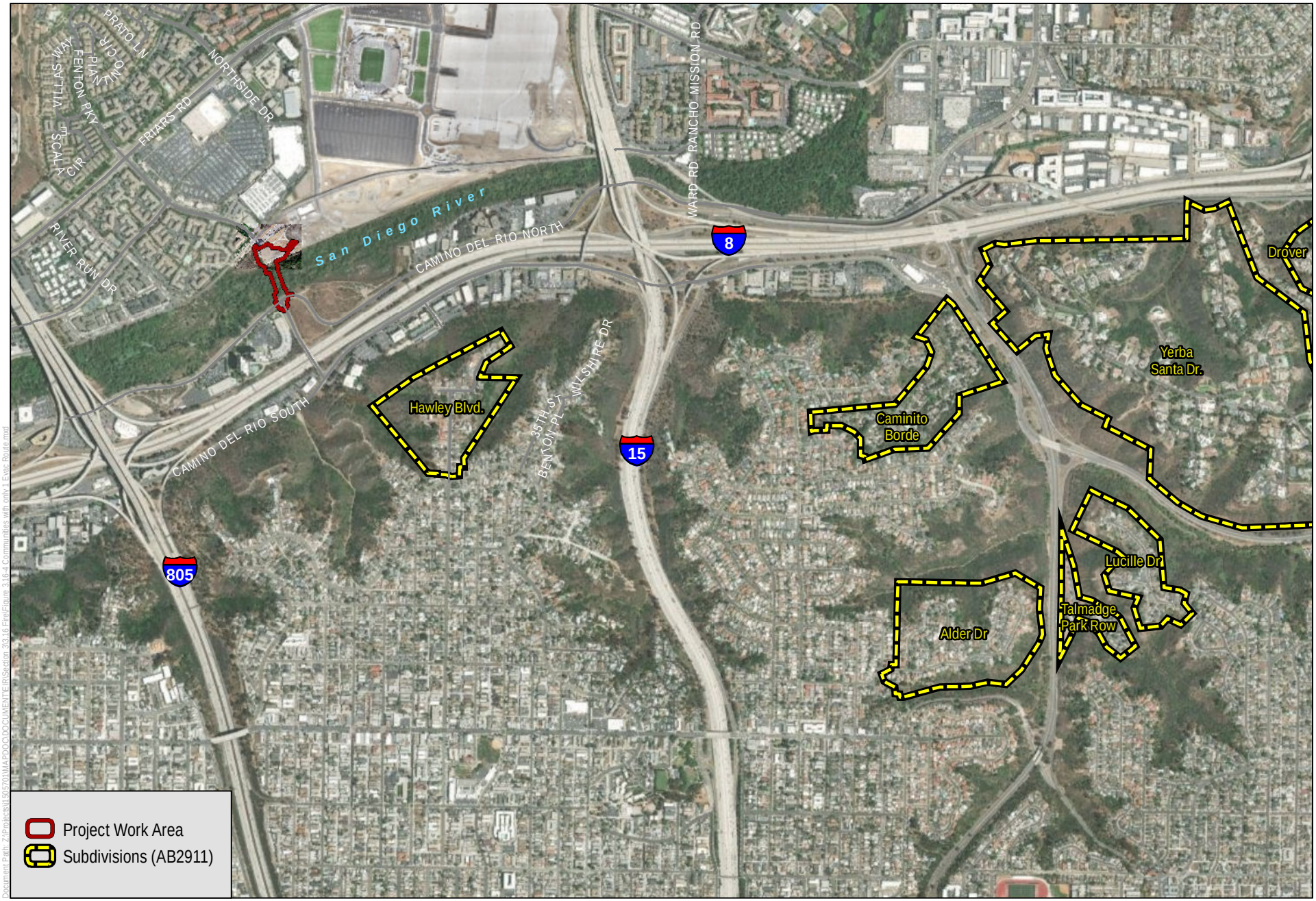

SOURCE: SANGIS IMAGERY 2023, CITY OF SAN DIEGO 2024

DUDEK

0 750 1,500 Feet

FIGURE 3.16-4

Communities with only One Evacuation Route

Fenton Parkway Bridge Project EIR

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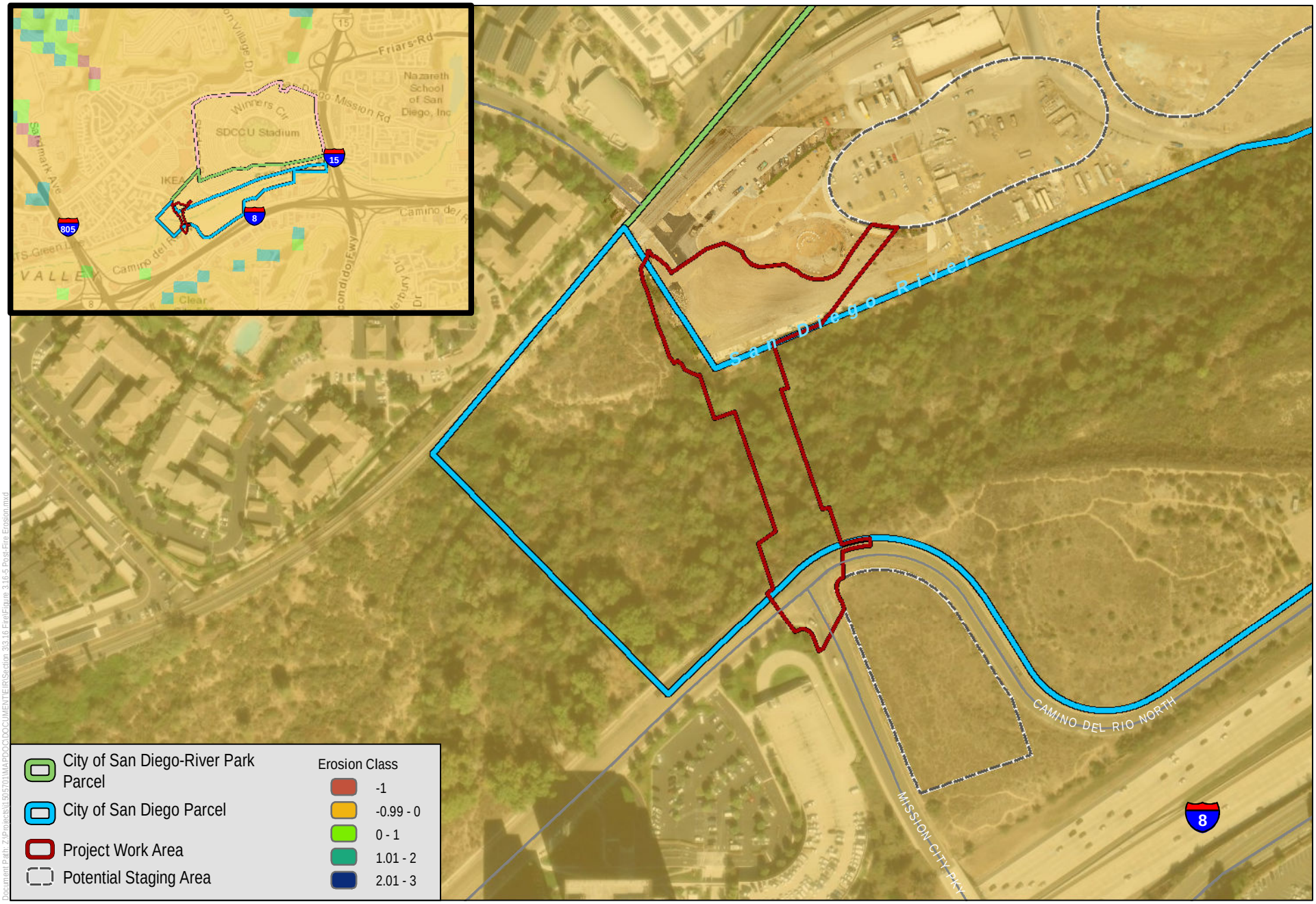

Document Path: Z:\Projects\15057011\MAP\DOC\DOCUMENTS\EIR\Section 3\3-16 Fire\Figure 3.16-5 Post-Fire Erosion.mxd

SOURCE: ESRI IMAGERY 2022; SDSU IMAGERY AUG 2023; SOIL EROSION- CAL FIRE 2024 DOWNLOAD

DUDEK

0 150 300 Feet

FIGURE 3.16-5

Post-Fire Soil Erosion

Fenton Parkway Bridge Project EIR

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4 Other Environmental Considerations

4.1 Growth Inducement

As stated in Section 15126.2(e) of the California Environmental Quality Act (CEQA) Guidelines, an environmental impact report (EIR) is required to include a discussion of a project's growth-inducing effects. The CEQA Guidelines generally describe such effects as follows: (1) economic growth, population growth, or additional housing in the surrounding environment; (2) removal of obstacles to population growth (e.g., a major expansion of a wastewater treatment facility that allows for more construction in the service area); (3) increases in population that tax existing services requiring construction of new facilities that could cause significant environmental effects; and (4) characteristics of a project that would encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

Construction of new roadways could result in potential inducement of growth if a roadway is constructed in a previously undeveloped or underdeveloped area by improving accessibility. The project site is located within a highly urbanized area that is currently served by existing roadway/access infrastructure. The proposed project would facilitate traffic circulation to existing developed areas in the vicinity of the project site. The proposed project would not result in economic growth, population growth, create additional housing, remove any obstacles to population growth, tax existing public services requiring new facilities to be constructed, or facilitate other activities that could significantly affect the environment. Therefore, the proposed project would not directly or indirectly induce growth in the area surrounding the project due to the extension or expansion of roadways in previously undeveloped or underdeveloped areas.

4.2 Effects Found Not To Be Significant

CEQA requires that an EIR focus on the significant effects of the proposed project on the environment, discussing the effects with emphasis in proportion to their severity and probability of occurrence. Effects dismissed in an Initial Study as clearly insignificant and unlikely to occur need not be discussed further in the EIR unless information inconsistent with the finding in the Initial Study is subsequently received.

Section 21100(c) of the Public Resources Code requires that an EIR contain a statement briefly explaining the reasons why various possible significant effects of a project were determined not to be significant and were, therefore, not discussed in detail in the Draft EIR. The CEQA Guidelines provide that the statement may be in the form of an attached copy of the Initial Study (CEQA Guidelines, Section 15128).

In this case, the Initial Study (Environmental Checklist) was prepared and circulated with the Notice of Preparation for public review on May 22, 2023 (Appendix A). The Initial Study concluded that the proposed project would not result in potentially significant impacts relative to the following environmental impact categories:

- Agriculture and Forestry Resources
- Mineral Resources
- Population and Housing
- Public Services

Therefore, as stated in the Initial Study/Notice of Preparation, these topics need not be addressed further in this EIR. For information purposes, following summary is presented.

4.2.1 Agricultural and Forestry Resources

The project site and surrounding uses are not zoned for and do not involve agricultural uses. No forestry resources or lands designated for forestry purposes are located within the project area. Development of the project site with a new bridge would occur within the boundaries of the project site, as identified in the project description. The project would have no impact on agricultural or forestry resources, and this topic is not discussed further in this EIR.

4.2.2 Mineral Resources

The project site and facility is underlain by Portland cement concrete-grade aggregate, which is considered a locally important mineral resource. According to the DOC, Mineral Lands Classification Mapping, the project site is within a Mineral Resource Zone (MRZ-2) mapped area, which is defined as "areas where geologic information indicates[s] that significant measured or indicated Portland Cement Concrete-grade aggregate is present" (DOC 2022). However, the project would not involve extraction of known mineral resources, including Portland Cement Concrete-grade aggregate. The construction of the bridge would also not preclude any future extraction should the City deem such activity appropriate as the landowner and regulatory authority involved in this area of the San Diego River. The project's impacts on mineral resources would be considered less than significant, and no mitigation is required. This topic is not discussed further in this EIR.

4.2.3 Population and Housing

The project would not facilitate any additional housing or other development types that would directly facilitate new population growth in the area. Project construction activities would employ available workers who live either in the area or the greater San Diego region and would commute to the project site during the site preparation and construction phase. Commuting out-of-area workers would not be anticipated to permanently relocate to the project area or surrounding communities. The proposed bridge and associated multimodal transportation improvements would facilitate a connection between uses on the north and south sides of the San Diego River. The proposed project would facilitate movement of people and goods within the confines of an established community and would not extend the roadway to encourage travel to a previously undeveloped area.

The project site consists of portions of existing roadways, a vacant lot used for stadium event parking and equipment storage, ruderal areas, and undisturbed reiver/riparian areas. There is no existing housing or other habitable structure on the project site. Therefore, potential impacts regarding population and housing would be less than significant, and no mitigation is required. This issue will not be analyzed further in the EIR.

4.2.4 Public Services

The project site is within the existing service area of the City of San Diego Fire-Rescue Department (FRD). More specifically, the project site is within the primary service district of Engine 45 based out of the Fenton Parkway/Northside Drive intersection (City of San Diego 2024a). Fire Station 45 is located at 9366 Friars Road, 0.6 miles northwest of the Fenton Parkway/Northside Drive intersection, and Engine 45's 4.28 square mile district consists of West Mission Valley, including areas both north and south of I-8 and the San Diego River

corridor (City of San Diego 2024a) Other nearby fire stations include: Fire Station 18 at 4676 Felton Street, Fire Station 14 at 4011 32nd Street, and Fire Station 17 at 4206 Chamoune Avenue.

The project site is within the existing service area for the San Diego Police Department Eastern Division (City of San Diego 2024b). The Eastern Division Police Station is located at 9225 Aero Drive, approximately 2 miles north of the project site. The Eastern Division service area extends south from State Route 52 to include east Mission Valley as well as areas south of I-8, including the College Area east of I-15 (City of San Diego 2024b). During construction, security measures such as perimeter/safety fencing and lighting would be implemented at the project site. The project design and construction would comply with all applicable building, fire, and safety codes (e.g., City and County of San Diego, Caltrans, Titles 19 and 24 of the California Code of Regulations, California Health and Safety Code, and the American Association of State Highway and Transportation Officials guidelines). The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered San Diego Police Department facilities in order to maintain acceptable service ratios, response times, or other performance objectives.

The project site is adjacent to the southwest of SDSU Mission Valley. Audeo Charter School is approximately 0.35 miles east from the project site. No other schools are located within 0.25 miles of the project site. The project site is also within the San Diego Unified School District; however, there are no school district facilities near (i.e., within 0.25 miles of) the project site. The project would not develop any habitable structures or otherwise directly/indirectly result in population growth. As such, there is no potential for project operation to adversely affect service ratios or other performance objectives for schools. Rather, by facilitating connectivity between the commercial retail developments and SDSU Mission Valley on the north side of the San Diego River to office and residential districts located on the south side of the river, the project would improve access and mobility conditions for a public-school facility (i.e., SDSU Mission Valley). Traffic control measures to address temporary construction impacts at Camino Del Rio North/Mission City Parkway and Fenton Parkway would ensure access is maintained for travelers to and from SDSU or Audeo Charter School (located approximately 0.35 miles east from the project site). For these reasons, the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities in order to maintain acceptable service ratios or other performance objectives.

The proposed bridge would span the San Diego River and open space corridor, which currently supports a disconnected series of more formal parks and pathways. Further, SDSU is currently in the process of constructing the River Park on City-owned land that will be available for use by the general public, located adjacent to the proposed bridge. Although there is currently no means of access (e.g., trails or other pathways) to the riverbed or habitat areas on or adjacent to the project site, the adopted Mission Valley Community Plan envisions a completed San Diego River Pathway that will "…join with green streets that have enriched pedestrian spaces including linear parks and nodes of pedestrian-scale, visually stimulating developments that contain restaurants, retail, offices, and residences" (City of San Diego 2019). The proposed bridge is identified in the Mission Valley Community Plan as helping to provide a safe and reliable means of transportation for visitors, employees, and residents to explore the San Diego River riparian habitat, passive recreation opportunities, and "urban oasis" of Mission Valley (City of San Diego 2019). As discussed above, the project would not develop any habitable structures or directly/indirectly result in population growth. As such, there is no potential for project operation to adversely affect service ratios or other performance objectives for existing parks. Rather, the proposed project would facilitate access to and enjoyment of the existing San Diego River and open space areas while also supporting a broader vision for increasing park space and access to parks/open space in Mission Valley.

The Mission Valley Branch of the City of San Diego Public Library (2123 Fenton Parkway) is located on the corner of Northside Drive and Fenton Parkway adjacent to and north of the project site. Since the project would not result in the development of any habitable structures or otherwise directly/indirectly result in population growth, there is no potential for project operation to adversely affect service ratios or other performance objectives for other public services, such as libraries. Regarding potential project construction impacts, temporary traffic control measures (e.g., lane closures, signage) would be incorporated around identified construction laydown/staging areas, including within the park area west of Fenton Bridge Parkway and south River Park Road and SDSU Mission Valley. For areas along Fenton Parkway that are outside existing roadways, advance signs notifying vehicles of approaching work zones may be installed. These measures would ensure that library visitors and employees are appropriately routed during temporary construction activities and continue to have safe and effective access to library facilities and services.

The project would result in less-than-significant public service impacts and these issues are not discussed further in this EIR.

4.3 Significant Irreversible Environmental Changes

CEQA Guidelines Section 15126.2(d) requires that an EIR identify any significant irreversible environmental changes associated with a proposed project. Such changes include, for example, the use of non-renewable resources during the initial and continued phases of the proposed project, or irreversible damage from environmental accidents associated with the proposed project. The potential for such environmental changes is discussed below.

4.3.1 Nonrenewable Energy Consumption

CEQA guidelines section 15126(c) provides that an EIR shall include a detailed statement setting forth "[i]n a separate section…[a]ny significant effects on the environment that would be irreversible if the Project is implemented." Accordingly, CEQA Guidelines section 15126.2(d) provide the following guidance for analyzing the significant irreversible environmental changes of a Project:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irretrievable damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Construction of the proposed project would result in the use of nonrenewable resources and energy sources. This consumption would occur during the construction phase of the proposed project and would continue throughout its operational lifetime. In particular, project construction would require fossil fuels, a nonrenewable resource, to power construction vehicles, delivery, and employee vehicles. Construction of the proposed project would require consumption of resources that are not renewable or that may renew so slowly as to be considered nonrenewable. Construction equipment also would use electricity and natural gas. Use of these energy sources would be considered a permanent commitment of resources. In addition, a variety of resource materials would be used during the construction process, including certain types of lumber and other forest products; concrete and

aggregate materials used in concrete and asphalt such as sand, gravel, and stone; metals such as steel, copper, and lead; petrochemical construction materials such as plastics; water; and fossil fuels such as gasoline and oil and fabricated materials. The commitment of such materials and fuels would be considered irreversible.

Once operational, the proposed project would consume more energy on a daily basis than what is presently consumed on site. The resources that would be committed during operation of the proposed project would include electricity for bridge lighting. Assuming at least a portion of the energy used during operations would be provided by nonrenewable resources, the proposed project would result in the commitment of nonrenewable energy resources during operation. (See EIR Section 3.5, Energy, for analysis of the proposed project's impacts relative to energy consumption.)

Although nonrenewable resources would be utilized during the construction and operational phases of the proposed project, the commitment of these resources is reasonable and justified under the circumstances, particularly as the proposed project is designed to accommodate safe and reliable vehicle passage across the San Diego River. As discussed in EIR Section 3.5, the proposed project's use of energy will not have a substantial effect on statewide, regional, or local energy resources; the proposed project will comply with all applicable energy standards; and there is a less-than-significant potential for the proposed project to result in wasteful, inefficient, or unnecessary consumption of fuel or energy.

Project impacts related to consumption of nonrenewable resources are considered to be less than significant because the proposed project would not use unusual amounts of energy or construction materials. Because the proposed project would not consume an unusual amount of energy or materials, and would implement design features to operate in a sustainable manner, potential impacts associated with nonrenewable energy consumption would be **less than significant**.

4.3.2 Accidental Hazardous Release

The CEQA Guidelines Section 15126.2(d) also states that irreversible damage can result from environmental accidents associated with the project. Potential environmental accidents of concern include those events that would adversely affect the environment or public due to the type of quantity of materials released and the receptors exposed to that release. Construction activities associated with the project would involve some risk of environmental accidents. However, these activities would be conducted in accordance with all applicable federal, state, and local regulations, and would follow professional industry standards for safety. Once operational, any materials associated with environmental accidents would comply with applicable federal, state, and local regulations. Use of any such materials would not adversely affect the environment or public due to the type or quantity of materials released and the receptors exposed to that release.

In light of the multitude of federal, state, and local regulations governing the use of hazardous substances, the proposed project is not expected to involve activities that would damage the environment or pose a risk to public health. Therefore, impacts associated with irreversible damage from environmental impacts associated with the proposed project would be **less than significant**.

4.3.3 Conclusion

In summary, construction and operation of the proposed project would result in the irretrievable commitment of nonrenewable resources, which would limit the availability of these particular resources for future generations or for other uses during the life of the proposed project. However, the use of those resources would be of a relatively small scale compared to other developments. The loss of such resources would not be highly accelerated when compared to existing conditions and growth projections for San Diego County. The proposed project's irretrievable commitments of resources have been evaluated and, based on that evaluation, the proposed project's consumption of those resources is justified (14 CCR 15126.2[c]). Therefore, although irretrievable commitments of resources would result from the proposed project, such changes would be **less than significant**.

4.4 Significant Unavoidable Impacts

The proposed project would result in significant, unavoidable impacts to the following resources as discussed in Section 3 of this EIR:

- Biological Resources (temporary indirect noise impacts on sensitive species)
- Noise (temporary indirect noise impacts on sensitive species)

Impacts would be mitigated to the extent feasible, but not to a level of less than significant, or otherwise no feasible mitigation measures exists within the control of CSU, which would reduce certain impacts to less than significant.

5 Alternatives

5.1 Introduction

The California Environmental Quality Act (CEQA) requires the lead agency, in this case the California State University (CSU) Board of Trustees, to consider a range of reasonable and feasible alternatives to the proposed project and analyze the impacts of those alternatives. By comparing these alternatives to the proposed project, the advantages of each alternative can be analyzed and evaluated.

CEQA Guidelines Section 15126.6(a) requires that an environmental impact report (EIR) "describe a range of reasonable alternatives to the proposed project, or to the location of the project, that would feasibly attain most of the basic objectives but would avoid or substantially lessen any of the significant environmental effects of the project, and evaluate the comparative merits of the alternatives." Thus, the focus of this alternatives analysis is on those alternatives that can reduce the proposed project's significant impacts; alternatives that merely reduce the project's less-than-significant impacts receive less attention. Further, Section 15126.6(a) also provides that an EIR need not consider every conceivable alternative to a project. Instead, the EIR must consider a range of reasonable alternatives; an EIR need not consider alternatives that are infeasible. "Feasible" is defined in the CEQA Guidelines Section 15364 to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." Further, "feasibility" encompasses "desirability" to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors" (*City of Del Mar v. City of San Diego* [1982] 133 Cal.App3d 410, 417). There also is no ironclad rule governing the nature or scope of the alternatives to be discussed in an EIR, other than the "rule of reason." The "rule of reason" governing the range of alternatives specifies that an EIR should only discuss those alternatives necessary to foster meaningful public participation and informed decision-making.

Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (California Public Resources Code Section 21002.1), the purpose of an EIR's alternatives discussion is to focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if the alternatives would impede to some degree the attainment of the project's objectives or be more costly. Further, CEQA requires that an EIR identify the environmentally superior alternative from among the alternatives.

5.1.1 Project Background and City of San Diego Involvement

As part of the purchase and sale agreement between SDSU and the City for the SDSU Mission Valley site, which was executed in August 2020, SDSU agreed to help fund the planning, design, and construction of the Fenton Parkway Bridge. In furtherance thereof, and pursuant to a memorandum of understanding (MOU) between SDSU and the City and City Ordinance No. O-21564, SDSU has agreed to plan, design, and construct the bridge to City transportation department design standards on behalf of the City. As described in the MOU, SDSU and the City have agreed to work collaboratively on the bridge project; SDSU is responsible for planning, design, environmental review and permitting, and construction of the bridge, in conjunction with City review and input. Additionally, SDSU and the City would share the costs of the project. Once constructed, the City would assume ownership, operation and maintenance obligations for the bridge.

City of San Diego - Environmentally Sensitive Lands Regulations

According to the City's Land Development Code (LDC) Section 143.0101, the purpose of the ESL Regulations are to "protect, preserve, and, where damaged restore, the ESL of San Diego and the viability of the species supported by those lands." In addition to serving as the implementation mechanism for the MSCP Subarea Plan, the ESL Regulations and LDM supporting documents (Biology, Steep Hillside, and Coastal Bluffs and Beaches Guidelines) serve as standards for the determination of impacts and mitigation under CEQA.

As defined in the City's LDC Section 113.0103, ESL means land containing steep hillsides, sensitive biological resources, coastal beaches, sensitive costal bluffs, or Special Flood Hazard Areas. Pursuant to the MOU, SDSU has agreed that development on ESL required in connection with the proposed project will be carried out in a manner consistent with the ESL regulations and various Guidelines in the Land Development Manual, including any applicable exceptions as outlined in the City's LDC Section 143.0111. Deviations from the ESL Regulations are permitted in accordance with the City's LDC Section 143.0150. Deviations to the wetland regulations in Section 143.0141(b), in particular, are permitted for development that is located outside of the Coastal Overlay Zone and qualifies under either the Essential Public Project Option, the Economic Viability (EV) Option, or the Biologically Superior (BS) Option according to the City's LDC Section 143.0150(d). Because Fenton Parkway Bridge is a linear infrastructure project identified in the Mission Valley Community Plan as a proposed connection, it meets the criteria to be categorized as an Essential Public Project (see LDC Section 143.0150(d)(1)(B)(ii)).

5.1.2 Proposed Bridge

The proposed design for the bridge is a conventional prestressed concrete girder structure. This bridge design can be accomplished by way of two different construction methods, pre-cast, or cast-in-place. A pre-cast construction method uses bridge components that are manufactured off-site and assembled onsite. For a cast-in-place construction method, concrete is poured and cured in forms onsite to create a structural element in its final position. Both construction methods were fully analyzed as part of the proposed project and throughout this EIR.

The bridge would be approximately 450 feet long, 58 feet wide, and 7 feet, 6 inches deep, and would consist of up to four spans. The spans would be supported on concrete seat-type abutments in the river embankments at each end and two to three piers within the river channel, each consisting of two to three approximately 20-foot-tall, 6-foot-diameter circular concrete columns.

Each abutment would be supported on eight 4-foot-diameter, cast-in-drilled-hole concrete piles, and each of the columns would be supported on a single 8-foot-diameter cast-in-drilled-hole concrete pile. Piles are currently estimated to be drilled to depths of between 50 and 200 feet below existing grade. Each of the abutments will be protected with energy dissipating riprap that will be buried to allow for post-construction habitat restoration over the riprap. Allowing this habitat restoration will ensure that post construction replanting fosters wildlife use following completion of the bridge.

The bridge would connect the southern terminus of Fenton Parkway to the northern terminus of Camino Del Rio North/Mission City Parkway. The new bridge would include two 11-foot-wide through-traffic lanes and a 10-foot-wide center lane that would be used for southbound left-turn movements onto Camino Del Rio North. The 10-foot-wide center lane would provide an optional additional traffic lane for flexible use during stadium or emergency events.

Combined bicycle and pedestrian pathways would be installed and raised above the travel lanes on either side of the bridge. The 6.5-foot-wide bike lane would be separated from a 5.5-foot-wide pedestrian path by a 6-inch-wide strip of yellow truncated domes (see Figure 2-3, Project Site Plan).

5.1.3 Project Impacts

The analysis in this EIR indicates that implementation of the proposed Fenton Parkway Bridge Project (project) would result in potentially significant impacts to the following environmental issue areas:

- Air Quality
- Biological resources
- Cultural resources
- Geology and soils (paleontological resources)
- Tribal cultural resources
- Noise
- Wildfire

Of the above impacts, the following two were identified as significant and unavoidable with implementation of all feasible mitigation measures as discussed in Chapter 3 of this EIR:

- Biological resources (temporary indirect construction noise impacts to nesting birds)
- Noise (temporary construction noise impacts to sensitive receptors)

5.2 Criteria for Selection of Alternatives

The criteria for the selection and analysis of alternatives are provided in CEQA Guidelines Section 15126.6(c). The alternatives must meet most of the project objectives, be feasible, and avoid or substantially lessen the significant impacts resulting from the project.

5.2.1 Project Purpose and Objectives

The underlying purpose of the project is to meet the needs of the communities north and south of the river by improving local and regional connectivity. These objectives are informed by and reflect the vision for a Fenton Parkway crossing described in the Mission Valley Community Plan Update (MVCPU) (adopted September 2019), with the exception that the proposed project involves a three-lane road compared to a four-lane road as envisioned in the MVCPU. As previously stated, per the City's LDC Section 143.0150[d][1][B][iii], the project is considered to be an Essential Public Project. The objectives of the project are as follows:

- Construct a multi-modal bridge over the San Diego River to improve north–south mobility in eastern Mission Valley by connecting the existing street network between I-805 and I-15.
- Provide accessible pedestrian and bicycle infrastructure that connects the communities south of the river to public open space and local and regional trail networks north of the river.

- Improve direct connectivity between residential neighborhoods and commercial office centers south of the river and residential, commercial, institutional, and public park lands and recreational amenities north of the river.
- Provide a high-water crossing in eastern Mission Valley.
- Improve emergency access between the communities north and south of the river in the eastern portion of the Mission Valley community, in support of San Diego Fire Department Station 45.
- Support multimodal transit by providing infrastructure to facilitate increased rider access to the MTS Trolley Green Line and the Fenton Parkway and Stadium Stations, for riders south of the river.
- Minimize temporary and permanent impacts to natural resources (shading, wildlife movement, native plant regrowth, etc.) consistent with the San Diego River Park Master Plan bridge design guidelines.
- Construct the bridge in a manner that minimizes temporary and permanent impacts to sensitive biological resources within the City's Stadium Wetland Mitigation Site.
- Minimize impacts to natural topography and sensitive biological resources.

5.2.2 Feasibility

CEQA Guidelines Section 15126.6(f)(1) also identifies factors to be taken into account to determine the feasibility of alternatives. The factors are site suitability; economic viability; availability of infrastructure; general plan consistency; other plans or regulatory limitations; jurisdictional boundaries; and whether the applicant can reasonably acquire, control, or otherwise have access to the alternative site. No one of these factors establishes a fixed limit on the scope of reasonable alternatives. An alternative does not need to be considered if its environmental effects cannot be reasonably ascertained and if implementation of such an alternative is remote or speculative.

5.3 Rationale for the Selection of Alternatives

This alternatives discussion focuses on alternatives to the proposed project or its location that are capable of avoiding or substantially reducing any significant effects of the proposed project, even if these alternatives would impede to some degree the attainment of the project's objectives, as listed in Chapter 2, Project Description, and restated above.

As part of an alternatives analysis, CEQA requires an EIR to address a No Project (No Build) Alternative. The purpose of describing and analyzing a No Project (No Build) Alternative is to allow the decision makers to compare the impacts of approving a project with the impacts of not approving the project. This EIR addresses the No Project (No Build) Alternative in Section 5.4.1 of this EIR.

EIRs should also identify any alternatives that were considered by the lead agency but rejected as infeasible and briefly explain the reasons why the lead agency made such a determination. Among the factors that may be used in an EIR to eliminate alternatives from detailed consideration are failure to meet most of the basic project objectives, infeasibility (as measured against the factors listed in Section 5.2.2), and/or inability to avoid significant environmental impacts.

In accordance with these requirements and based on comments received during the EIR Notice of Preparation and scoping process for the proposed project (see Appendix A), four alternatives were identified: the No Project (No Build) Alternative, Pedestrian/Bicycle Bridge Only Alternative, Tied-Arch Bridge Alternative, and Suspension Bridge Alternative. Each alternative is further analyzed below (see Section 5.4, Alternatives Analysis).

5.3.1 Project Alternatives

Project alternatives were developed during the conceptual planning phase of the proposed project, including the required No Project (No Build) Alternative (14 CCR 15126.6[e]). These alternatives were selected in an effort to reduce the proposed project's identified significant impacts:

- No Project (No Build) Alternative. CEQA requires consideration of a no project alternative and recommends it evaluate what could reasonably be expected to occur in the foreseeable future if the proposed project were not approved, based on current plans and consistent with available infrastructure and community services (14 CCR 15126.6[e][3][C]). The No Project (No Build) Alternative assumes that the proposed project would not be developed and existing environmental conditions in the project area would remain in their current state. As such, no bridge would be developed across the San Diego River.
- Pedestrian/Bicycle Only Bridge Alternative. The Pedestrian/Bicycle Only Bridge Alternative would involve the construction of a pedestrian/bicycle only bridge and would not provide vehicular access. While this alternative would improve north–south pedestrian and bicycle access in the area, it would not provide any emergency access or improve evacuation capacity. This alternative would have a narrower bridge design because it would not include vehicular lanes and three smaller piers would need to be installed in the river channel.
- Tied-Arch Bridge Alternative. The Tied-Arch Bridge Alternative would avoid the installation of any piers within the river bottom. Instead, the bridge would span the river using a pair of tall arches from which the deck would be suspended by cables. The entire structure would be supported by large abutment foundations installed in the north and south banks of the river. This alternative would avoid potential cultural and tribal cultural resource impacts in the riverbed but would necessitate broader impact footprints within the existing street infrastructure along the southern edge of the river and the proposed street infrastructure along the northern edge of the river. This alternative would also require encroachment into the City's Stadium Wetland Mitigation Site. The construction method for installing a tied-arch bridge would require larger cranes within the river corridor, and a greater area of vegetation would need to be cleared to accommodate the tall temporary arch supports.
- Suspension Bridge Alternative. The Suspension Bridge Alternative would avoid the installation of any piers within the river bottom. Instead, the bridge would span the river using a pair of large towers (approximately 120 feet in height) supported by large abutment foundations installed in the north and south banks of the river. Two additional foundations would need to be installed for the anchorages (back-stays) approximately 150 feet north of the north tower and 150 feet south of the south tower. This alternative would avoid potential cultural and tribal cultural resource impacts within the riverbed but would necessitate broader impact footprints within the existing street infrastructure on the south edge of the river and the proposed street infrastructure on the north edge of the river. This alternative would require additional encroachment into the City's Stadium Wetland Mitigation Site. The Suspension Bridge Alternative would have increased impacts to biological resources compared to the proposed project.

5.3.2 Alternatives Considered But Rejected

5.3.2.1 Alternative Bridge Location

The location of the proposed project is consistent with the MVCPU, which contemplates a multimodal bridge crossing the San Diego River as an extension of Fenton Parkway (Figure 5-1). This is the only San Diego River crossing contemplated in the MVCPU located between Interstate (I) 805 and I-15. Locating the proposed project in an alternative location arguably would require an amendment to the MVCPU. For this reason, as well as others described below, alternative bridge locations were considered but rejected.

As stated in the MVCPU, key corridors in Mission Valley include three significant east–west corridors (I-8, the San Diego River, and Friars Road) and four north–south corridors (State Route 163, Mission Center Road, Qualcomm Way, and I-15). Although these corridors provide significant automobile access, they create barriers for cyclists and pedestrians attempting to access the trolley. In order to improve trolley station access, it will be necessary to devise connections that allow for easy access across these barriers. Pedestrian bridges across the San Diego River at the Hazard Center and Mission Valley Center Stations, similar to what is available near the Fashion Valley Transit Station, would also provide greater connectivity and shorter walking times than the existing roadway crossings. The Fenton Parkway Station would have greater connectivity through either a multimodal or pedestrian bridge. Since most transit riders begin or end their trip as a pedestrian, safe pedestrian crossings improve access to trolley stations, particularly given the wide, high-speed roadways present in the community (City of San Diego 2019a).

One strategy that can be used to promote connections across Mission Valley's barriers, particularly its highways and the San Diego River, are pedestrian and bicycle bridges. In order to be successful—safe, well-used, enjoyable—bridges need to follow direct paths linking destinations and be designed to create a high-quality pedestrian and cycling experience. Pedestrian and bicycle bridges have the potential to create connections across I-8 and Friars Road, as well as the San Diego River. Strategically located connections across San Diego River can also greatly enhance trolley station access, given that the trolley runs adjacent to the river along much of its length in Mission Valley. Other potential locations for pedestrian and bicycle bridges are between the YMCA and Sefton Park, through the Riverwalk site as a part of future development of the Riverwalk project, and over the river from Mission Valley Center Trolley Station.

The only ways to travel across the San Diego River in Mission Valley during large storm/flooding events are via freeways. Since pedestrians and cyclists cannot use the freeway, they are unable to cross the river during flooding events. Following are the surface streets that close due to flooding during large storm events in Mission Valley:

- Fashion Valley Road across the river
- Riverwalk Drive (behind Fashion Valley Mall) adjacent to the river
- Avenida Del Rio across the river
- Camino De La Reina from just west of Avenida Del Rio to just east of Camino De La Siesta
- Mission Center Road across the river
- Camino Del Este across the river
- Qualcomm Way across the river
- Ward Road across the river

- San Diego Mission Road across the river
- Friars Road from west of Colusa to just east of Colusa Street

Alternative bridge locations were contemplated by the City in the MVCPU EIR (City of San Diego 2019b). Based on planned growth in Mission Valley, which is expected to increase by 248% between 2012 and 2050 (Table 3.4-1, Buildout Summary, in City of San Diego 2019b), the City recommended that the Fenton Parkway connection over the San Diego River (to Camino Del Rio North and Mission City Parkway) and the Via Las Cumbres connection over the San Diego River be included in the MVCPU; however, the Via Las Cumbres extension was an alternative that was ultimately considered but rejected as infeasible and replaced with the nearby planned Street J connection to serve as the high-water crossing for the west side of the community. The planned Street J connection is not considered a potential alternative to the Fenton Parkway connection because it is three miles away and therefore does not serve as the needed high-water connection in eastern Mission Valley.

Any location for a bridge in eastern Mission Valley across the San Diego River would result in impacts similar to those identified for the proposed project. Impacts to biological resources in the river corridor are consequences of constructing a multimodal bridge. Construction noise, air quality and greenhouse gas (GHG) emissions are also inevitable consequences; however, construction noise is temporary and the introduction of a bridge would reduce vehicle miles traveled (VMT) and GHG emissions in the long-term. Further, the potential to encounter subsurface cultural, tribal, or paleontological resources would occur in any alternative location scenario. Regardless of the location, environmental impacts would be significant and mitigation would be required. The location for the proposed project was chosen due to optimal conditions on either side of the river and the need for a connection near San Diego State University (SDSU) Mission Valley, residential and office uses, and the trolley station. Impacts would not be reduced or avoided if the bridge was constructed in an alternate location. For these reasons, additional alternative locations have been excluded from further analysis.

5.3.2.2 Four-Lane Bridge Alternative

The Fenton Parkway Bridge that was proposed in the Mission Valley Community Plan was planned as a four-lane collector with two-way left-turn lane (Figure 5-1). Although this bridge design was included in the Mission Valley Community Plan, the potential impacts of a four-lane bridge were not analyzed. The Fenton Parkway Bridge was carried over from the previous 1985 Community Plan in which it was classified as a four-lane major street. The change from a four-lane major to a four-lane collector street classification as part of the 2019 Community Plan Update was intended to allow for a narrower cross section and less impactful bridge. Subsequently, with further study conducted as part of the nearby SDSU Mission Valley project, including consideration of the potential environmental impacts of a four-lane bridge and alternatives, the City determined that a further downgrade in the classification of the bridge connection from four-lane collector to two-lane collector with center painted/convertible median would be accepted (City of San Diego January 4, 2024). For these reasons, a four-lane bridge was rejected from further analysis.

5.3.2.3 Existing Bridge Retrofits

An existing bridge retrofit alternative was a suggestion made by the U.S. Fish and Wildlife Service to the City in 2002 during preparation of the Mission Valley Community Plan EIR. For this reason, the feasibility of potentially retrofitting two existing bridges is analyzed below. The two bridges that are discussed below that could potentially be retrofitted to allow for greater storm flow through the San Diego River are the bridges at Qualcomm Way and Ward Road.

As shown on Figure 5-3, Qualcomm Way is a non-interstate freeway crossing over the San Diego River to the west of the proposed Fenton Parkway Bridge crossing. Qualcomm Way (previously known as Stadium Way) was constructed in the in 1967 and consists of a low water crossing of the San Diego River. The bridge is designed to convey an approximately 10- 20-year flood event. When events greater than 10- 20-years occur, the river flows will overtop the bridge and flow across the roadbed, rendering the roadway impassable until flood waters recede.

For a retrofit of the Qualcomm Way bridge to occur, the existing low-flow bridge would need to be demolished and a new bridge would need to be constructed in its place. This alternative would involve demolishing the existing bridge, bridge abutments and approach roadway that extends into the San Diego River, to allow for a new bridge to be constructed. The purpose of a newly constructed bridge would be to allow at least a 50-year storm event to pass beneath the road without damaging the road or bridge. This alternative would eliminate the need for a proposed crossing at Fenton Parkway.

A newly constructed bridge at Qualcomm Way would be tall enough to convey a 50-year storm event; however, due to the elevation of the existing San Diego Trolley line on the north side of the bridge, the necessary approach angle for cars to safely pass beneath the trolley line would be too steep. Thus, while a new bridge in this location would be able to convey flows from a 50-year storm event, it would be infeasible, and unsafe, for vehicles to use. For this reason, retrofit of the Qualcomm Way bridge was deemed infeasible and was not moved forward for further consideration.

The second retrofit bridge alternative would involve the demolition and reconstruction of the Ward Road bridge which is the next non-interstate freeway bridge to the east of the proposed project site. An elevated portion of the San Diego Trolley line is located immediately north of this bridge, similar to Qualcomm Way. This trolley bridge has approximately 14.9 feet of clearance between the road deck of Ward Road and the floor of the trolley bridge. Standard design requirements call for at least 15.5 feet of clearance to ensure safe passage for all vehicles. When the trolley bridge was built, a design exception was granted to allow for only 14.9 feet of clearance. Raising the elevation of a newly constructed Ward Road bridge to accommodate a greater flood flow would result in a further design modifications and exceptions which could result in a safety hazard for vehicle passage beneath the trolley bridge. For this reason, retrofit of the Ward Road bridge was deemed infeasible and was not moved forward for further consideration.

5.4 Alternatives Analysis

The alternatives evaluated in Sections 5.4.1 through 5.4.4 were developed to avoid or lessen the significant environmental impacts of the proposed project as identified in Chapter 3 of this EIR. This analysis of alternatives focuses on the proposed project's effects found to be significant and provides a comparison analysis of the alternative's effects to the proposed project, as shown in Table 5-1. The following analysis also provides a qualitative comparison of those environmental effects of the proposed project that were determined to be less than significant.

5.4.1 No Project (No Build) Alternative

Description of the No Project (No Build) Alternative

The No Project (No Build) Alternative considers the effects of foregoing the proposed project entirely and leaving the project site in its current condition. Under the No Project (No Build) Alternative, the proposed project would not be approved and a new north–south connection over the San Diego River would not be constructed. The No Project (No Build) Alternative allows decision makers to compare the impacts of the proposed project to retaining the existing condition of the project site. The No Project (No Build) Alternative describes the environmental conditions that existed at the time that the environmental analysis commenced when the Notice of Preparation was released on May 22, 2023 (14 CCR 15126.6[e][2]). Therefore, only the scenario of foregoing the proposed project entirely is considered for the No Project (No Build) Alternative.

Evaluation of Significant Impacts

Aesthetics and Visual Quality

Construction and operation of the proposed project would not result in significant impacts to existing views and visual quality and character or conflict with the underlying zoning and other regulations governing scenic quality. Once constructed, decorative bridge lighting elements supported by metal posts would operate during evening and night hours. While pole style and luminaire type has yet to be designed, selected lighting would generally be consistent with local (i.e., Community Plan and San Diego River Park Master Plan) policies concerning installation of LED streetlights with adaptive controls, shielding of fixtures, provision of adequate lighting for pedestrian and cyclists, and protection of biological resources. Therefore, it was determined that impacts would be less than significant, and no mitigation would be required.

Under the No Project (No Build) Alternative, there would be no construction or operational activities and no bridge would be constructed; therefore, no additional potentially significant aesthetic impacts would occur. Because the No Project (No Build) Alternative would not alter the visual character or quality of the project site, there would be no impacts to aesthetics or visual quality compared to the proposed project.

Air Quality and Greenhouse Gas Emissions

Construction and operational activities associated with the proposed project would result in an increase in the emission of criteria pollutants and GHGs. Impacts related to project emissions of volatile organic compounds (VOCs), oxides of nitrogen (NO_X), carbon monoxide (CO), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$), and particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}) would be less than significant based on a comparison of the proposed project's construction and operational emissions to the San Diego County Air Pollution Control District (SDAPCD) thresholds. Further, the proposed project would result in less-than-significant impacts regarding conformity with the applicable air quality plan. The proposed project was determined not to result in significant impacts related to GHG emissions.

Under the No Project (No Build) Alternative, there would be no construction activity or change in traffic patterns in the area. Thus, no increase in impacts relating to air quality and GHG emissions would occur. However, the lack of a connection at Fenton Parkway greatly increases the amount of out-of-direction vehicular travel within eastern Mission Valley. Out-of-direction travel from inefficient routing significantly contributes to increased GHG emissions. Moreover, the No Project (No Build) Alternative would not provide an additional routing option for transit

connectivity and improve bus and trolley access in the area to reduce traffic congestion on other transit. Finally, it would not further the City's Climate Action Plan (CAP) because it would not provide a safer and higher quality/lower stress environment for pedestrians and cyclists to help achieve the City's CAP targets. Thus, the No Project (No Build) Alternative would hinder the City's efforts to reduce GHG emissions in the long term.

Nonetheless, because there would be no construction emissions under the No Project (No Build) Alternative, impacts to air quality and GHG emissions would be reduced compared to the proposed project. However, in the long term there would be no benefit realized with a reduction in VMT and contribution to the City's efforts to reduce GHG emissions. Emission in the long term would be less beneficial under this alternative compared to the proposed project.

Biological Resources

The proposed project would result in significant impacts to special-status wildlife species, sensitive vegetation communities, federally and state-regulated wetlands/riparian areas, and native habitat without mitigation. Required mitigation measures would reduce the potential for direct and indirect impacts on special-status plant and wildlife species, sensitive natural communities, jurisdictional waters, and wildlife corridors by ensuring that special-status resources would be avoided to the extent possible and compensatory mitigation provided to address significant impacts. However, even with all feasible mitigation applied, temporary indirect construction noise impacts to nesting birds would be significant and unavoidable.

Under the No Project (No Build) Alternative, there would be no site disturbance; therefore, no potentially significant impacts to biological resources would result. Impacts to biological resources would be reduced compared to the proposed project.

Cultural and Tribal Cultural Resources

The proposed project would contribute to potentially significant impacts to cultural resources, archeological resources, human remains, and tribal cultural resources. No cultural or archaeological resources were identified through the South Coastal Information Center (SCIC) records search or through intensive pedestrian survey of the area. However, adjacent projects and Native American Heritage Commission (NAHC) consultation did identify the possibility that the project site may intersect previously unidentified cultural or tribal cultural resources. Impacts would be reduced to less than significant through implementation of mitigation.

Under the No Project (No Build) Alternative there would be no development or ground-disturbing activities. Therefore, there would be no potentially significant impacts to cultural resources, archeological resources, human remains, or tribal cultural resources. Impacts would be reduced compared to the proposed project, and the potentially significant impacts would be avoided. Overall impacts to cultural and tribal cultural resources would be reduced compared to the proposed project.

Energy

The proposed project would result in less-than-significant impacts related to use of energy resources because the proposed project would not engage in wasteful or unnecessary energy usage, and all new bridge lighting would be designed to meet current energy conservation building code requirements.

Because the No Project (No Build) Alternative would not involve any development or construction, it would not consume additional energy, and no impact to energy resources would occur. Overall, impacts to energy would be reduced compared to the proposed project.

Geology/Soils

The proposed project would result in potentially significant impacts to geology and soils, and more specifically, paleontological resources. These impacts are related to the potential for unknown, subsurface paleontological resources to be present. Mitigation measures are identified to ensure impacts to paleontological resources, associated with implementation of the proposed project would be fully mitigated to less-than-significant levels. Potential impacts associated with seismic ground-shaking, soil instability, erosion, lateral spreading, liquefaction, and landslides were all determined to be less than significant, and no mitigation was required.

Under the No Project (No Build) Alternative, because there would be no development or soil disturbance associated with construction, no potentially significant impacts would arise regarding geology, soils, and paleontological resources. Impacts would be reduced compared to the proposed project.

Hazards and Hazardous Materials

The proposed project consists of the construction of a vehicular and pedestrian bridge and public right-of-way road improvements. As such, operation of the project would not result in the routine transport, use, or disposal of hazardous materials. Construction activities for the proposed project would result in hazardous materials (e.g., asphalt, fuels, oils, solvents, paints, lubricants, cleaners) routinely transported, stored, and used at the project site during construction. Compliance with the existing regulations would ensure the project would not create a significant hazard to the public or the environment involving transport of hazardous materials or through accident conditions. The project would not interfere negatively with implementation of an adopted emergency response plan or evacuation plan. In fact, the proposed project would improve overall emergency access compared to existing conditions. Impacts associated with hazards and hazardous materials would be less than significant, and no mitigation is required.

The No Project (No Build) Alternative would not result in any impacts related to hazards and hazardous materials because it would not involve construction of the bridge and no potentially hazardous materials would be used on site. Impacts would be reduced compared to the proposed project.

Hydrology and Water Quality

Design of the proposed project considered the hydrology of the project site and the need to accommodate future flooding of portions of the project site while providing for water quality treatment in compliance with all requirements, including implementation of the City's Municipal Separate Storm Sewer System (MS4) permit requirements and National Pollutant Discharge Elimination System (NPDES) permit requirements. During precipitation events, substances on the bridge (e.g., oil, gas, grease) would be mobilized and potentially transported through relocated storm drains into the San Diego River, resulting in adverse water quality impacts to the river. However, in compliance with the Small MS4 Permit, stormwater runoff on the bridge would be directed to the north side of the bridge and into a proposed biofiltration basin on the west side of the bridge. The surface water contaminants would thus be filtered out of the stormwater prior to entering the river. In addition, the bridge would have over 6 feet of freeboard over the base flood elevation and would adequately convey the 100-year

flow. With the inclusion of drainage and stormwater treatment improvements, the proposed project would result in less-than-significant impacts related to hydrology and water quality.

The No Project (No Build) Alternative would not alter the project site through construction activities and installation of piers within the river channel; therefore, this alternative would not result in any changes to the existing hydrology on site or create a risk for pollutants to be released during storm events. Impacts to hydrology and water quality would be reduced compared to the proposed project.

Land Use and Planning

Impacts related to land use and planning would be less than significant because the proposed project would not physically divide an established community or result in a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. As analyzed in Section 3.10, Land Use, the proposed project would be consistent with the MVCPU, the San Diego River Park Master Plan, and the City's CAP. The proposed project will result in direct impacts to the San Diego River, which is in the MHPA. Section 1.4.2, General Planning and Design Guidelines, of the City of San Diego's MSCP Subarea Plan (City of San Diego 1997) states that "Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/emergency access roads. Local streets should not cross the MHPA except where needed to access isolated development areas." The proposed project is referenced in the Mission Valley Community Plan (adopted by the City in 2019) and is a long-sought infrastructure enhancement in the Mission Valley community as a means of connecting residents and businesses south of the San Diego River to land uses north of the river off Friars Road, including the SDSU Mission Valley development, which was approved by the Trustees of the CSU in 2020 (City of San Diego 2019a). SDSU Mission Valley includes Snapdragon Stadium and will include parks, open space, and new residential, commercial, and innovation-district uses. The proposed project would facilitate an additional vehicular, bicycle, and pedestrian connection between the businesses and residential areas north and south of the San Diego River. Therefore, the development of the bridge within the MHPA is consistent with the City of San Diego's MSCP Subarea Plan and there is no impact to the City of San Diego or other local agencies' abilities to implement the MSCP. All land use compatibility impacts would be less than significant.

The No Project (No Build) Alternative would be inconsistent with the City's current planning efforts, including the MVCPU, which calls for development of the Fenton Parkway Bridge. The No Project (No Build) Alternative would also be inconsistent with the City's CAP, because it would not provide a safer and higher quality/lower stress environment for pedestrians and cyclists to help achieve the City's CAP targets. In addition, the No Project (No Build) Alternative would not help reduce GHG emissions from out-of-direction vehicle travel due to inefficient routing. The No Project Alternative would not result in any impacts within the MHPA and would not impact the City of San Diego or other local agencies' abilities to implement the MSCP, like the proposed project. However, the No Project (No Build) Alternative would be inconsistent with recent planning efforts and would be less beneficial overall when compared to the proposed project.

Noise

The proposed project would result in less-than-significant impacts related to long-term ambient noise levels and generation of groundborne vibration. However, temporary construction noise impacts cannot be mitigated to a level of less than significant. This results in a significant and unavoidable temporary noise impacts on nesting birds. As stated in MM-BIO-15, to the extent feasible, on-site noise reduction techniques shall be implemented prior to construction activity to minimize construction noise levels and meet this Leq threshold at the nest

location(s). During construction activity, a qualified biologist shall monitor the observed nest locations and document any signs of disturbance, which would trigger further implementation of noise reduction techniques or alternatives that may include utilization of quieter equipment, adherence to equipment maintenance schedules, shifting construction phase timelines so that they occur outside of the breeding season, installation of temporary sound barriers, or shifting construction work further from the nest. However, if none of the noise reduction techniques are feasible, impacts would be significant and unavoidable. The proposed project would result in the creation of additional vehicle trips on local roadways (i.e., Fenton Parkway, Mission City Parkway, and Camino Del Rio North), which could result in increased traffic noise levels at adjacent noise-sensitive land uses. However, the addition of proposed project traffic to the local roadway network would result in a CNEL increase of less than 3 dB, which is below the discernible level of change for the average healthy human ear. Generation of groundborne vibration during construction and operation was also determined to be less than significant.

The No Project (No Build) Alternative would not have the potential to result in noise or vibration impacts because no construction or operational activities would occur on the project site beyond existing conditions. Thus, impacts associated with noise would be reduced compared to the proposed project.

Transportation

With the proposed project, VMT is projected to decrease within a 3-mile and 5-mile radius of the project by 7,170 VMT and 9,452 VMT, respectively. This suggests that drivers who would otherwise take a longer alternative route are able to use the Fenton Parkway Bridge and shorten their trip length, reducing VMT overall. In addition, for informational purposes, intersection and roadway capacity analysis was also conducted to provide insight about the operational effects of the project to the local transportation network with the addition of the new roadway connection. The proposed capacity of the Fenton Parkway Bridge and new/reconfigured intersections is sufficient for the estimated daily and peak hour traffic demand under Opening Year (2027) and Design Year (2050) conditions and will not cause any roadways to operate at an undesirable level of service (LOS). All transportation impacts were determined to be less than significant, and no mitigation measures were required.

The No Project (No Build) Alternative would not result in any transportation impacts because it would not result in any construction or operational activities on site; however, this alternative would not achieve VMT reductions associated with shorter vehicle trips that would be realized with a vehicular bridge. Therefore, a reduction in VMT would not occur, and the benefits of a new bridge would not be realized when compared to the proposed project.

Utilities and Service Systems

The proposed project would not require a connection for water or sewer service. The project would generate solid waste during construction, and new stormwater infrastructure would be required to transport and treat stormwater runoff. The project would also require new electrical infrastructure and connections for the new intersection signals and security lighting along the bridge. However, all impacts were determined to be less than significant, and no mitigation was required.

The No Project (No Build) Alternative would result in no development or operational activities; therefore, it would not result in impacts to utilities and service systems. Impacts would be reduced compared to the proposed project.

Wildfire

The project site is located within a Very High Fire Hazard Severity Zone (VHFHSZ) as mapped by the California Department of Forestry and Fire Protection (CAL FIRE) and the San Diego Fire-Rescue Department (SDFD). The proposed project would provide a new north–south emergency evacuation route during wildfire or flooding events and would create a new access point to protect City-owned land within the San Diego River. The proposed project has the potential to exacerbate wildfire risk during construction; however, with standard procedures in place, ignition potential during construction would be reduced to less than significant.

The No Project (No Build) Alternative would not alter the project site or result in any construction activities on the project site. The project site would still be within the VHFHSZ as mapped by CAL FIRE. A new access point to protect City-owned land including environmentally sensitive habitats would not be provided under the No Project (No Build) Alternative. Under the No Project (No Build) Alternative, the area would continue to have impaired emergency evacuation routes during flood events, which would hamper the ability for nearby fire stations to serve a greater area when multiple stations are responding to incidents and/or covering adjacent districts. Under the No Project (No Build) Alternative, the community would not benefit from improvements to emergency response times, increased access, and additional emergency evacuation/ingress options that the proposed project would provide. Therefore, the No Project (No Build) Alternative would be less beneficial when compared to the proposed project.

Comparison of Impacts to the Proposed Project

The No Project (No Build) Alternative would involve no changes on the project site, because the project site would remain in its current condition, effectively eliminating those project impacts discussed in this EIR. There would be no change to aesthetics related to a bridge overpass. There would be no air quality or GHG emissions associated with project construction, and the No Project (No Build) Alternative would not temporarily increase noise in the project area. There would be no land disturbance so there would be no impacts to biological resources, cultural resources, tribal cultural resources, or geology and soils (i.e., paleontological resources), and no mitigation would be required. Under the No Project (No Build) Alternative, no bridge would be constructed and there would be no change in the existing conditions.

However, under the No Project (No Build) Alternative, an essential north–south connection that has been included as a necessary infrastructure project in several planning documents, including the Mission Valley Community Plan —and that is considered an Essential Public Project by the City—would not be constructed. The area would continue to have impaired emergency evacuation routes during flood events, which would hamper the ability of nearby fire stations to serve a greater area when multiple stations are responding to incidents and/or covering adjacent districts. Under the No Project (No Build) Alternative, the community would not benefit from improvements to emergency response times, increased access, and additional emergency evacuation/ingress options that the proposed project would provide.

Furthermore, supporting active transportation (walking, bicycling, and transit) is an important component of the City's CAP, which aims to achieve net zero GHG emissions by year 205. Under the No Project (No Build) Alternative, a safer and higher quality/lower stress environment for pedestrians and cyclists to help achieve the City's CAP targets would be forsaken. The No Project (No Build) Alternative would also not allow the realization of an additional routing option for transit connectivity and improved bus and shuttle access to the SDSU Mission Valley campus that could reduce traffic congestion on other transit routes.

Relationship to Project Objectives

The No Project (No Build) Alternative would not achieve any of the project objectives. Specifically, the No Project (No Build) Alternative would not include construction of a bridge expanding north–south vehicular, pedestrian, or bicycle mobility in eastern Mission Valley. No high-water crossing would be constructed and emergency access and evacuation would not be improved. While the No Project (No Build) Alternative would not have any direct or indirect impacts to biological, tribal cultural, or cultural resources as identified with the proposed project, the objectives of the project would not be met.

Feasibility

The No Project (No Build) Alternative would not develop the project site, leaving it in its current condition with no new north–south connection across the San Diego River. Though this is feasible, it would not achieve any of the project objectives. Further, the No Project (No Build) Alternative would not implement the City's current planning efforts within the Mission Valley Community Planning Area and would not further the City's CAP because it would not provide a safer and higher quality/lower stress environment for pedestrians and cyclists to help achieve the City's CAP targets.

5.4.2 Pedestrian/Bicycle Only Bridge Alternative

Description of the Pedestrian/Bicycle Only Bridge Alternative

The Pedestrian/Bicycle Only Bridge Alternative would consist of a narrower bridge with no vehicle access. This alternative would still require either two or three piers to be installed in the river bottom, but the piers would only have one column compared to two. The Pedestrian/Bicycle Only Bridge Alternative would have a similar length (450 feet) to the proposed project, but the bridge width would be reduced to 26 feet compared to a width of 58 feet. This alternative would not provide any vehicle access, including emergency vehicles, and could not be utilized as an evacuation route during an emergency, except by pedestrians and bicycles. Construction of the Pedestrian/Bicycle Only Bridge Alternative would require a reduced construction duration compared to the cast-in-place construction method, which was used as a worst-case scenario under the proposed project (54 weeks compared to 60 weeks). A similar amount of lighting would be required along the bridge under this alternative.

Evaluation of Significant Impacts

Aesthetics and Visual Quality

Construction and operation of the proposed project would not result in significant impacts to existing views and visual quality and character or conflict with the underlying zoning and other regulations governing scenic quality. Once constructed, decorative bridge lighting elements supported by metal posts would operate during evening and night hours. While pole style and luminaire type has yet to be designed, selected lighting would generally be consistent with local (i.e., Community Plan and San Diego River Park Master Plan) policies concerning installation of LED streetlights with adaptive controls, shielding of fixtures, provision of adequate lighting for pedestrian and cyclists, and protection of biological resources. Therefore, it was determined that impacts would be less than significant, and no mitigation would be required.

Under the Pedestrian/Bicycle Only Bridge Alternative, a bridge with the same length and a more narrow width would be constructed as the proposed project; therefore, aesthetic impacts would be similar. Because this alternative would alter the visual character or quality of the project site in a similar way as the proposed project, impacts to aesthetics or visual quality would remain the same when compared to the proposed project.

Air Quality and Greenhouse Gas Emissions

Construction and operational activities associated with the proposed project would result in an increase in the emission of criteria pollutants and GHGs. Impacts related to project emissions of VOC, NO_X, CO, $PM_{2.5}$, and PM_{10} would be less than significant based on a comparison of the proposed project's construction and operational emissions to the SDAPCD thresholds. Further, the proposed project would result in less-than-significant impacts regarding conformity with the applicable air quality plan. The proposed project was determined not to result in significant impacts related to GHG emissions.

Under the Pedestrian/Bicycle Only Bridge Alternative, construction of the bridge would still occur and impacts relating to air quality and GHG emissions would be similar, albeit slightly reduced due to the reduced bridge footprint and construction schedule. The construction schedule would be reduced by 6 weeks compared to the proposed project due to the need for a narrower bridge deck. The Pedestrian/Bicycle Only Bridge Alternative would be consistent with the City's CAP because it would provide a safer and higher quality/lower stress environment for pedestrians and cyclists to help achieve the City's CAP targets. While this alternative would improve the City's efforts to reduce GHG emissions in the near term by providing a more expansive pedestrian and bicycle network in the Mission Valley area, the elimination of a vehicular access point that would in effect further reduce potential VMT would be less beneficial as it relates to air quality and GHG in the long term compared to the proposed project. Construction impacts would be reduced and operational impacts would be less beneficial under the Pedestrian/Bicycle Only Bridge Alternative.

Biological Resources

The proposed project would result in significant impacts to special-status wildlife species, sensitive vegetation communities, federally and state-regulated wetlands/riparian areas, and native habitat without mitigation. Required mitigation measures would reduce the potential for direct and indirect impacts on special-status plant and wildlife species, sensitive natural communities, jurisdictional waters, and wildlife corridors by ensuring that special-status resources would be avoided to the extent feasible and compensatory mitigation provided to address significant impacts. However, even with all feasible mitigation applied, temporary indirect noise impacts to nesting birds would be significant and unavoidable.

Under the Pedestrian/Bicycle Only Bridge Alternative, there would be slightly less disturbance to biological resources with a smaller impact footprint and reduced indirect noise impacts to nesting birds due to the shorter construction schedule; however, potentially significant impacts to biological resources would still result, and mitigation would be required. Overall, impacts to biological resources would be slightly reduced compared to the proposed project.

Cultural and Tribal Cultural Resources

The proposed project would contribute to potentially significant impacts to cultural resources, archeological resources, human remains, and tribal cultural resources. No cultural or archaeological resources were identified through the SCIC records search or through intensive pedestrian survey of the area. However, adjacent projects and

NAHC consultation did identify the possibility that the project site may intersect previously unidentified cultural or tribal cultural resources. Impacts would be reduced to less than significant through implementation of mitigation.

Under the Pedestrian/Bicycle Only Bridge Alternative, there would be ground-disturbing activities similar to the proposed project, albeit slightly reduced because of the narrower bridge configuration and smaller footprint in the riverbed. Therefore, there would still be potentially significant impacts to cultural resources, archeological resources, human remains, or tribal cultural resources, albeit slightly reduced compared to the proposed project. Potentially significant impacts would be reduced with mitigation similar to the proposed project. Impacts would be slightly reduced compared to the proposed project.

Energy

The proposed project would result in less-than-significant impacts related to use of energy resources because the proposed project would not engage in wasteful or unnecessary energy usage, and all new bridge lighting would be designed to meet current energy conservation building code requirements.

The Pedestrian/Bicycle Only Bridge Alternative would require a similar amount of energy during construction, and once in operation, energy usage would also be similar to the proposed project. Electricity and petroleum would be consumed during construction activities, but only electricity would be consumed during operation of the bridge. Lighting require along the bridge during operation would be the same under the Pedestrian/Bicycle Only Bridge Alternative and the same amount of electricity would be consumed. Overall, impacts to energy would be the same compared to the proposed project.

Geology/Soils

The proposed project would result in potentially significant impacts to geology and soils, and more specifically, paleontological resources. These impacts are related to the potential for unknown, subsurface paleontological resources to be present. Mitigation measures are identified to ensure impacts to paleontological resources, associated with implementation of the proposed project would be fully mitigated to less-than-significant levels. Potential impacts associated with seismic ground-shaking, soil instability, erosion, lateral spreading, liquefaction, and landslides were all determined to be less than significant, and no mitigation was required.

Under the Pedestrian/Bicycle Only Bridge Alternative, soil disturbance associated with construction would be similar to the proposed project, and potential impacts to paleontological resources would still occur. However, this bridge design would only require one column per pier compared to two columns needed for the proposed project; therefore, there would be a slightly reduced potential to encounter paleontological resources. Mitigation would still be required but impacts would be slightly reduced compared to the proposed project.

Hazards and Hazardous Materials

The proposed project consists of the construction of a vehicular and pedestrian bridge and public right-of-way road improvements. As such, operation of the project would not result in the routine transport, use, or disposal of hazardous materials. Construction activities for the proposed project would result in hazardous materials (e.g., asphalt, fuels, oils, solvents, paints, lubricants, cleaners) routinely transported, stored, and used at the project site during construction. Compliance with the existing regulations would ensure the project would not create a significant hazard to the public or the environment involving transport of hazardous materials or through accident conditions. The project would not interfere negatively with implementation of an adopted emergency response

plan or evacuation plan. In fact, the proposed project would improve overall emergency access compared to existing conditions. Impacts associated with hazards and hazardous materials would be less than significant, and no mitigation is required.

Under the Pedestrian/Bicycle Only Bridge Alternative, construction impacts related to hazards and hazardous materials would be similar to the proposed project. The Pedestrian/Bicycle Only Bridge Alternative would also be required to comply with existing regulations to ensure the project would not create a significant hazard to the public or the environment. Impacts associated with hazards and hazardous materials would be the same compared to the proposed project.

Hydrology and Water Quality

Design of the proposed project considered the hydrology of the project site and the need to accommodate future flood flows in the river channel while providing for water quality treatment in compliance with all requirements, including implementation of the City's MS4 permit requirements and NPDES permit requirements. During precipitation events, substances on the bridge (e.g., oil, gas, grease) would be mobilized and potentially transported through relocated storm drains into the San Diego River, resulting in adverse water quality impacts to the river. However, in compliance with the Small MS4 Permit, stormwater runoff on the bridge would be directed to the north side of the bridge and into a proposed biofiltration basin on the west side of the bridge. The surface water contaminants would thus be filtered out of the stormwater prior to entering the river. In addition, the bridge would have over 6 feet of freeboard over the base flood elevation and would adequately convey the 100-year flow. With the inclusion of drainage and stormwater treatment improvements, the proposed project would result in less-than-significant impacts related to hydrology and water quality.

The Pedestrian/Bicycle Only Bridge Alternative would alter the project site through construction activities and installation of piers within the river channel similar to the proposed project, albeit with a slightly reduced footprint due to the reduced bridge width. Therefore, this alternative would result in similar changes to the existing hydrology on site and similar risk for pollutants to be released during storm events. Compliance with all water quality treatment requirements during construction would be necessary and inclusion of the same biofiltration basin and stormwater conveyance systems would be required prior to operation. Impacts to hydrology and water quality would be the same compared to the proposed project.

Land Use and Planning

Impacts related to land use and planning would be less than significant because the proposed project would not physically divide an established community or result in a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. As analyzed in Section 3.10, the proposed project would be consistent with the MVCPU, the San Diego River Park Master Plan, and the City's CAP.

The proposed project will result in direct impacts to the San Diego River, which is in the MHPA. Section 1.4.2, General Planning and Design Guidelines, of the City of San Diego's MSCP Subarea Plan (City of San Diego 1997) states that "Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/emergency access roads. Local streets should not cross the MHPA except where needed to access isolated development areas." The proposed project is referenced in the Mission Valley Community Plan (adopted by the City in 2019) and is a long-sought infrastructure enhancement in the Mission Valley community as a means of connecting residents and businesses south of the San Diego River to

land uses north of the river off Friars Road, including the SDSU Mission Valley development, which was approved by the Trustees of the CSU in 2020 (City of San Diego 2019a). SDSU Mission Valley includes Snapdragon Stadium and will include parks, open space, and new residential, commercial, and innovation-district uses. The proposed project would facilitate an additional vehicular, bicycle, and pedestrian connection between the businesses and residential areas north and south of the San Diego River. Therefore, the development of the bridge within the MHPA is consistent with the City of San Diego's MSCP Subarea Plan and there is no impact to the City of San Diego or other local agencies' abilities to implement the MSCP. All land use compatibility impacts would be less than significant.

The Pedestrian/Bicycle Only Bridge Alternative would be partially consistent with the City's current planning efforts, including the MVCPU, which calls for development of the Fenton Parkway Bridge to provide vehicular, bicycle, and pedestrian access over the San Diego River in eastern Mission Valley. The elimination of vehicular access with this alternative would not be fully consistent with the MVCPU. This alternative would be consistent with the City's CAP because it would provide a safer and higher quality/lower stress environment for pedestrians and cyclists to help achieve the City's CAP targets. While this alternative would help reduce GHG emissions due to an expanded pedestrian and bicycle network in the Mission Valley area, the lack of a new vehicular connection across the river would not solve the stated project goal of reducing out-of-direction vehicle travel due to inefficient routing. Regarding compatibility with the MHPA, impacts would be similar to the proposed project. However, this alternative would be inconsistent with recent planning efforts; therefore, impacts to land use and planning would be less beneficial when compared to the proposed project.

Noise

The proposed project would result in less-than-significant impacts related to long-term ambient noise levels and generation of groundborne vibration. However, temporary construction noise impacts cannot be mitigated to a level of less than significant. This results in a significant and unavoidable temporary noise impacts on nesting birds. As stated in MM-BIO-15, to the extent feasible, on-site noise reduction techniques shall be implemented prior to construction activity to minimize construction noise levels and meet this Leq threshold at the nest location(s). During construction activity, a qualified biologist shall monitor the observed nest locations and document any signs of disturbance, which would trigger further implementation of noise reduction techniques or alternatives that may include utilization of quieter equipment, adherence to equipment maintenance schedules, shifting construction phase timelines so that they occur outside of the breeding season, installation of temporary sound barriers, or shifting construction work further from the nest. However, if none of the noise reduction techniques are feasible, impacts would be significant and unavoidable. The proposed project would result in the creation of additional vehicle trips on local roadways (i.e., Fenton Parkway, Mission City Parkway, and Camino Del Rio North), which could result in increased traffic noise levels at adjacent noise-sensitive land uses. However, the addition of proposed project traffic to the local roadway network would result in a CNEL increase of less than 3 dB, which is below the discernible level of change for the average healthy human ear. Generation of groundborne vibration during construction and operation was also determined to be less than significant.

The Pedestrian/Bicycle Only Bridge Alternative would alter the project site through construction activities and installation of piers within the river channel; impacts would be slightly reduced because of the narrower bridge deck and slightly shorter construction schedule. Operational noise would be less than the proposed project due to the lack of vehicles on the bridge. This alternative would therefore result in slightly less construction noise and reduced noise once operational, due to the lack of vehicles on the roadway.

Transportation

With the proposed project, VMT is projected to decrease within a 3-mile and 5-mile radius of the project by 7,170 VMT and 9,452 VMT, respectively. This suggests that drivers who would otherwise take a longer alternative route are able to use the Fenton Parkway Bridge and shorten their trip length, reducing VMT overall. In addition, for informational purposes, intersection and roadway capacity analysis was also conducted to provide insight about the operational effects of the project to the local transportation network with the addition of the new roadway connection. The proposed capacity of the Fenton Parkway Bridge and new/reconfigured intersections is sufficient for the estimated daily and peak hour traffic demand under Opening Year (2027) and Design Year (2050) conditions and will not cause any roadways to operate at an undesirable LOS. All transportation impacts were determined to be less than significant, and no mitigation measures were required.

Like the proposed project, the Pedestrian/Bicycle Only Bridge Alternative would reduce VMT in the Mission Valley area due to an expanded bicycle and pedestrian network, but this alternative would not achieve VMT reductions associated with shorter vehicle trips that would be realized with a vehicular bridge. Therefore, a substantial reduction in VMT would not occur, and the full benefits of a vehicular bridge would not be realized when compared to the proposed project.

Utilities and Service Systems

The proposed project would not require a connection for water or sewer service. The project would generate solid waste during construction, and new stormwater infrastructure would be required to transport and treat stormwater runoff. The project would also require new electrical infrastructure and connections for the new intersection signals and security lighting along the bridge. However, all impacts were determined to be less than significant, and no mitigation was required.

The Pedestrian/Bicycle Only Bridge Alternative would result in the same development or operational activities as the proposed project. A similar amount of solid waste would be generated during construction, and stormwater infrastructure would be required to treat and convey stormwater during construction and operation. Similar electrical infrastructure would also be required under the Pedestrian/Bicycle Only Bridge Alternative. Therefore, impacts to utilities and service systems would be the same compared to the proposed project.

Wildfire

The project site is located within a VHFHSZ as mapped by CAL FIRE and the SDFD. The proposed project would provide a new north–south emergency evacuation route during wildfire or flooding events and would create a new access point to protect city-owned land within the San Diego River. The proposed project has the potential to exacerbate wildfire risk during construction; however, with standard procedures in place, ignition potential during construction would be reduced to less than significant.

The project site would still be within the VHFHSZ as mapped by CAL FIRE; however, no new access point to protect City-owned land including environmentally sensitive habitats would be provided under the Pedestrian/Bicycle Only Bridge Alternative. Under the Pedestrian/Bicycle Only Bridge Alternative, the area would not have improved emergency evacuation routes during flood events; it would not provide the ability for nearby fire stations to serve a greater area. Under this alternative, the community would not benefit from improvements to emergency response times, increased access, and additional emergency evacuation/ingress options. Without the allowance of vehicular

traffic on the bridge, less emergency evacuation potential would occur compared to the proposed project. The Pedestrian/Bicycle Only Bridge Alternative would be less beneficial when compared to the proposed project.

Comparison of Impacts to the Proposed Project

There would be a similar change to aesthetics compared to the proposed project, although the bridge would be smaller and less substantial from a visual perspective. Reduced short-term impacts to air quality and GHG emissions would occur under this alternative because the bridge would be smaller and have a reduced construction schedule. However, this alternative would not provide a vehicular connection and therefore would not achieve the VMT reduction that would be realized with the proposed project, resulting in increased impacts to air quality and GHG compared to the proposed project in the long term.

This alternative would result in a smaller overall footprint, as less area within the river bottom would need to be cleared. There would be reduced land disturbance with the installation of this alternative compared to the project so potential impacts to biological resources, cultural and tribal cultural resources, and geology and soils (i.e., paleontological resources) would be slightly reduced. However, impacts would still be significant and mitigation identified to reduce these impacts would still be required under the Pedestrian/Bicycle Only Bridge Alternative.

The Pedestrian/Bicycle Only Bridge Alternative would provide an additional north–south connection, albeit more limited in modal use, which has been included as a necessary infrastructure project in several planning documents, including the Mission Valley Community Plan. The Pedestrian/Bicycle Only Bridge Alternative would not necessarily improve emergency evacuation routes during flood events as it would only allow pedestrians and bicycles, and no emergency vehicles would have access. Therefore, it would not enable nearby fire stations to serve a greater area when multiple stations are responding to incidents and/or covering adjacent districts. Under the Pedestrian/Bicycle Only Bridge Alternative, the community would not benefit from improvements to emergency response times, increased access, and additional emergency evacuation/ingress options, as no vehicles would be allowed across the bridge.

Furthermore, supporting active transportation (walking, bicycling, and transit) is an important component of the City's CAP, which aims to achieve net zero greenhouse gas emissions by year 2025. Similar to the proposed project, the Pedestrian/Bicycle Only Alternative would provide a safer and higher quality/lower stress environment for pedestrians and cyclists to help achieve the City's CAP targets. The Pedestrian/Bicycle Only Bridge Alternative would also provide an additional routing option for pedestrian and bicycle access to the SDSU Mission Valley campus, which could help reduce potential congestion of the regional bike and pedestrian network.

Relationship to Project Objectives

The Pedestrian/Bicycle Only Bridge Alternative would achieve some but not all of the project objectives. This alternative includes construction of a bridge expanding north–south pedestrian and bicycle mobility in eastern Mission Valley. However, improving vehicular mobility in the valley is also a project objective, which would not be achieved with this alternative. This alternative would provide a high-water crossing and would improve emergency access and evacuation, particularly for pedestrians and cyclists. While this alternative would have slightly reduced direct and/or indirect impacts to biological resources, cultural resources, paleontological resources, and tribal cultural resources compared to the proposed project, impacts overall would be similar.

Feasibility

While this alternative is feasible from a construction and operational perspective, the need for a vehicular north–south connection across the river is imperative for improved emergency access and evacuation. Pedestrians and cyclists would have access across the river under this alternative, but the fundamental project objectives and need would not be met with a Pedestrian/Bicycle Only Bridge Alternative.

5.4.3 Tied-Arch Bridge Alternative

Description of the Tied-Arch Bridge Alternative

The Tied-Arch Bridge Alternative would not involve the installation of any piers within the river bottom. Instead, the bridge would span the river using a pair of large, tall arches from which the deck would be suspended by cables (see Figure 5-2, Example Tied-Arch Bridge). The top of the arches would reach approximately 80 feet in height above the bridge deck and be approximately 100 feet off the riverbed. The entire structure would be supported by large abutment foundations installed at the north and south banks of the river. This alternative would avoid direct cultural and tribal cultural resource impacts within the river, but would necessitate broader impact footprints within the existing street infrastructure along the southern edge of the river and the proposed street infrastructure along the northern edge of the river. This alternative would also require direct permanent impacts to biological resources within the same footprint as the proposed project and would require encroachment into the City's Stadium Wetland Mitigation Site. The construction method for installing a tied-arch bridge would require larger cranes within the river corridor, and a greater area of vegetation would need to be cleared to accommodate the tall temporary arch supports. The Tied-Arch Bridge Alternative would have increased impacts to biological resources compared to the proposed project.

Evaluation of Significant Impacts

Aesthetics and Visual Quality

Construction and operation of the proposed project would not result in significant impacts to existing views and visual quality and character or conflict with the underlying zoning and other regulations governing scenic quality. Once constructed, decorative bridge lighting elements supported by metal posts would operate during evening and night hours. While pole style and luminaire type has yet to be designed, selected lighting would generally be consistent with local (i.e., Community Plan and San Diego River Park Master Plan) policies concerning installation of LED streetlights with adaptive controls, shielding of fixtures, provision of adequate lighting for pedestrian and cyclists, and protection of biological resources. Therefore, it was determined that impacts would be less than significant, and no mitigation would be required.

The Tied-Arch Bridge Alternative would be constructed with the same length and width as the proposed project; however, the need for a vertical cable system to suspend the bridge deck would create more visual prominence compared to the proposed project. This alternative would also require additional lighting to highlight the structure compared to the proposed project. Additional lighting could have greater aesthetic impacts. Furthermore, the ends of the arches would require wider abutments than the proposed project. The Tied-Arch Bridge Alternative would alter the visual character or quality of the project site in a greater way compared to the proposed project.

Furthermore, while the San Diego River Park Master Plan does not specifically rule out tied-arch bridges, it includes the following language related to bridge designs: "Pedestrian/bicycle-only bridges should be designed to blend into the natural landscape character of the River Corridor Area through the use of natural materials or material that reflects the natural colors of the river valley. Bridges that cross significant habitat, or historic view sheds, should include a platform to allow for pedestrian viewing without obstructing mobility" (City of San Diego 2013). This language supports the intention that less prominent bridges in the river corridor should be considered. The large structures/towers required for a tied-arch bridge would not conform to the intent of the San Diego River Park Master Plan as it relates to bridges. Impacts to aesthetics and visual quality would be increased under this alternative.

Air Quality and Greenhouse Gas Emissions

Construction and operational activities associated with the proposed project would result in an increase in the emission of criteria pollutants and GHGs. Impacts related to project emissions of VOC, NO_X, CO, $PM_{2.5}$, and PM_{10} would be less than significant based on a comparison of the proposed project's construction and operational emissions to the SDAPCD thresholds. Further, the proposed project would result in less-than-significant impacts regarding conformity with the applicable air quality plan. The proposed project was determined not to result in significant impacts related to GHG emissions.

Under the Tied-Arch Bridge Alternative, construction of the bridge would still occur, but temporary impacts relating to air quality and GHG emissions would increase. The construction schedule would be approximately twice the length of the proposed project (120 weeks compared to 60 weeks). Thus, the Tied-Arch Bridge Alternative would impair the City's efforts to reduce GHG emissions in the near term when compared to the proposed project.

The Tied-Arch Bridge Alternative would be consistent with the City's CAP, would provide an additional routing option for transit connectivity, and would improve bus and trolley access to the area, which could reduce traffic congestion on other transit routes. Because long-term operations under the Tied-Arch Bridge Alternative would be similar to the proposed project, operational impacts associated with air quality and GHG emissions would be similar.

Biological Resources

The proposed project would result in significant impacts to special-status wildlife species, sensitive vegetation communities, federally and state-regulated wetlands/riparian areas, and native habitat without mitigation. Required mitigation measures would reduce the potential for direct and indirect impacts on special-status plant and wildlife species, sensitive natural communities, jurisdictional waters, and wildlife corridors by ensuring that special-status resources would be avoided to the extent feasible and compensatory mitigation provided to address significant impacts. However, even with all feasible mitigation applied, temporary indirect noise impacts to nesting birds would be significant and unavoidable.

Under the Tied-Arch Bridge Alternative, there would be greater permanent disturbance to biological resources, despite the absence of piers in the river bottom. This alternative would also require direct permanent impacts to biological resources within the same footprint as the proposed project and would require encroachment into the City's Stadium Wetland Mitigation Site (approximately 13,000 square feet of area). The construction method for installing a tied-arch bridge would require larger cranes within the river corridor, and a greater area of vegetation would need to be cleared to accommodate the tall temporary arch supports. In addition, the construction timeframe for a tied-arch bridge would be approximately 120 weeks compared to the estimated 60 weeks (cast-in-place construction method) that was used as a worst-case scenario under the proposed project. An increased

construction schedule would result in an increased duration of indirect noise impacts to nesting birds. Impacts would therefore be greater than those of the proposed project and would remain significant and unavoidable.

Cultural and Tribal Cultural Resources

The proposed project would contribute to potentially significant impacts to cultural resources, archeological resources, human remains, and tribal cultural resources. No cultural or archaeological resources were identified through the SCIC records search or through intensive pedestrian survey of the area. However, adjacent projects and NAHC consultation did identify the possibility that the project site may intersect previously unidentified cultural or tribal cultural resources. Impacts would be reduced to less than significant through implementation of mitigation measures.

Under the Tied-Arch Bridge Alternative there would be ground-disturbing activities similar to the proposed project, with the exception that no piers would be installed in the river bottom; rather, additional ground disturbance would be required at the river embankments. This alternative would avoid direct cultural and tribal cultural resource impacts within the river but would necessitate broader impact footprints within the existing street infrastructure along the southern edge of the river and the proposed street infrastructure along the northern edge of the river. Although the majority of deep ground disturbance would occur within previously disturbed areas outside the river bed, the potential to encounter unknown subsurface resources would still occur and mitigation would still be required. Potentially significant impacts would be similar to the proposed project.

Energy

The proposed project would result in less-than-significant impacts related to use of energy resources because the proposed project would not engage in wasteful or unnecessary energy usage, and all new bridge lighting would be designed to meet current energy conservation building code requirements.

Due to its extended construction schedule, the Tied-Arch Bridge Alternative would require approximately double the amount of energy during construction, and once in operation, energy usage would also be slightly more than the proposed project due to increased architectural lighting. Electricity and petroleum would be consumed during construction activities, but only electricity would be consumed during operation of the bridge. Lighting required along the bridge during operation would be slightly more under the Tied-Arch Bridge Alternative and slightly more electricity would be consumed. Overall, impacts related to energy demand would be increased compared to the proposed project.

Geology/Soils

The proposed project would result in potentially significant impacts to geology and soils, and more specifically, paleontological resources. These impacts are related to the potential for unknown, subsurface paleontological resources to be present. Mitigation measures are identified to ensure impacts to paleontological resources, associated with implementation of the proposed project would be fully mitigated to less-than-significant levels. Potential impacts associated with seismic ground-shaking, soil instability, erosion, lateral spreading, liquefaction, and landslides were all determined to be less than significant, and no mitigation was required.

Under the Tied-Arch Bridge Alternative, there would be greater soil disturbance associated with construction, although no piers would be installed in the river bottom; rather, additional soil disturbance would be required at the river embankments. Potentially significant impacts would still arise regarding geology, soils, and paleontological resources due to the need for an increased construction footprint on either side of the bridge. The

majority of ground disturbance would occur in previously disturbed areas as opposed to native soils in the river bed; however, the potential to encounter unknown subsurface resources would still occur and mitigation would still be required. Potentially significant impacts would remain, and mitigation measures would be required.

Hazards and Hazardous Materials

The proposed project consists of the construction of a vehicular and pedestrian bridge and public right-of-way road improvements. As such, operation of the project would not result in the routine transport, use, or disposal of hazardous materials. Construction activities for the proposed project would result in hazardous materials (e.g., asphalt, fuels, oils, solvents, paints, lubricants, cleaners) routinely transported, stored, and used at the project site during construction. Compliance with the existing regulations would ensure the project would not create a significant hazard to the public or the environment involving transport of hazardous materials or through accident conditions. The project would not interfere negatively with implementation of an adopted emergency response plan or evacuation plan. In fact, the proposed project would improve overall emergency access compared to existing conditions. Impacts associated with hazards and hazardous materials would be less than significant, and no mitigation is required.

Under the Tied-Arch Bridge Alternative, impacts related to hazards and hazardous materials during construction would be similar to the proposed project. The Tied-Arch Bridge Alternative would also be required to comply with existing regulations to ensure the project would not create a significant hazard to the public or the environment. Emergency access would also be improved under this alternative similar to the proposed project. Impacts associated with hazards and hazardous materials would be the same compared to the proposed project.

Hydrology and Water Quality

Design of the proposed project considered the hydrology of the project site and the need to accommodate future flooding of portions of the project site while providing for water quality treatment in compliance with all requirements, including implementation of the City's MS4 permit requirements and NPDES permit requirements. During precipitation events, substances on the bridge (e.g., oil, gas, grease) would be mobilized and potentially transported through relocated storm drains into the San Diego River, resulting in adverse water quality impacts to the river. However, in compliance with the Small MS4 Permit, stormwater runoff on the bridge would be directed to the north side of the bridge and into a proposed biofiltration basin on the west side of the bridge. The surface water contaminants would thus be filtered out of the stormwater prior to entering the river. In addition, the bridge would have over 6 feet of freeboard over the base flood elevation and would adequately convey the 100-year flow. With the inclusion of drainage and stormwater treatment improvements, the proposed project would result in less-than-significant impacts related to hydrology and water quality.

The Tied-Arch Bridge Alternative would alter the project site through construction activities; however, no piers would be installed within the river channel. The work area on either side of the bridge would be greater compared to the proposed project but this alternative would result in similar changes to the existing hydrology on site and create a risk for pollutants to be released during storm events. Compliance with all water quality treatment requirements during construction would be necessary and inclusion of the same biofiltration basin and stormwater conveyance systems would be required prior to operation. Impacts to hydrology and water quality would be the same compared to the proposed project.

Land Use and Planning

Impacts related to land use and planning would be less than significant because the proposed project would not physically divide an established community or result in a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. As analyzed in Section 3.10, the proposed project would be consistent with the MVCPU, the San Diego River Park Master Plan, and the City's CAP.

The proposed project will result in direct impacts to the San Diego River, which is in the MHPA. Section 1.4.2, General Planning and Design Guidelines, of the City of San Diego's MSCP Subarea Plan (City of San Diego 1997) states that "Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/emergency access roads. Local streets should not cross the MHPA except where needed to access isolated development areas." The proposed project is referenced in the Mission Valley Community Plan (adopted by the City in 2019) and is a long-sought infrastructure enhancement in the Mission Valley community as a means of connecting residents and businesses south of the San Diego River to land uses north of the river off Friars Road, including the SDSU Mission Valley development, which was approved by the Trustees of the CSU in 2020 (City of San Diego 2019a). SDSU Mission Valley includes Snapdragon Stadium and will include parks, open space, and new residential, commercial, and innovation-district uses. The proposed project would facilitate an additional vehicular, bicycle, and pedestrian connection between the businesses and residential areas north and south of the San Diego River. Therefore, the development of the bridge within the MHPA is consistent with the City of San Diego's MSCP Subarea Plan and there is no impact to the City of San Diego or other local agencies' abilities to implement the MSCP. All land use compatibility impacts would be less than significant.

The Tied-Arch Bridge Alternative would be consistent with the City's current planning efforts, including the MVCPU, which calls for development of the Fenton Parkway Bridge. The Tied-Arch Bridge Alternative would also be consistent with the City's CAP, because it would provide a safer and higher quality/lower stress environment for pedestrians and cyclists to help achieve the City's CAP targets. In addition, the Tied-Arch Bridge Alternative would help reduce GHG emissions from out-of-direction vehicle travel due to inefficient routing. The Tied-Arch Bridge Alternative would be consistent with these recent planning efforts similar to the proposed project. Regarding impacts to the MHPA, the Tied-Arch Alternative would result in greater disturbance to biological resources, despite the absence of piers in the river bottom, and would encroach further into the MHPA (approximately 13,000 square feet of area) compared to the proposed project. However, similar to the proposed project, this alternative would facilitate an additional vehicular, bicycle, and pedestrian connection between the businesses and residential areas north and south of the San Diego River. Therefore, the development of a tied-arch bridge within the MHPA is consistent with the City of San Diego's MSCP Subarea Plan and impacts to land use and planning would be the same compared to the proposed project.

Noise

The proposed project would result in less-than-significant impacts related to long-term ambient noise levels and generation of groundborne vibration. However, temporary construction noise impacts cannot be mitigated to a level of less than significant. This results in a significant and unavoidable temporary noise impacts on nesting birds. As stated in MM-BIO-15, to the extent feasible, on-site noise reduction techniques shall be implemented prior to construction activity to minimize construction noise levels and meet this Leq threshold at the nest location(s). During construction activity, a qualified biologist shall monitor the observed nest locations and document any signs of disturbance, which would trigger further implementation of noise reduction techniques or alternatives that may include utilization of quieter equipment, adherence to equipment maintenance schedules,

shifting construction phase timelines so that they occur outside of the breeding season, installation of temporary sound barriers, or shifting construction work further from the nest. However, if none of the noise reduction techniques are feasible, impacts would be significant and unavoidable. The proposed project would result in the creation of additional vehicle trips on local roadways (i.e., Fenton Parkway, Mission City Parkway, and Camino Del Rio North), which could result in increased traffic noise levels at adjacent noise-sensitive land uses. However, the addition of proposed project traffic to the local roadway network would result in a CNEL increase of less than 3 dB, which is below the discernible level of change for the average healthy human ear. Generation of groundborne vibration during construction and operation was also determined to be less than significant.

The Tied-Arch Bridge Alternative would alter the project site through construction activities; however, no installation of piers within the river channel would occur. There would be a doubling of the construction schedule, which would prolong the duration of construction noise impacts compared to the proposed project. Temporary construction noise impacts would still be significant and unavoidable. Noise during operation with the addition of vehicle traffic along the bridge would be similar to the proposed project. Long-term impacts to noise would be the same compared to the proposed project.

Transportation

With the proposed project, VMT is projected to decrease within a 3-mile and 5-mile radius of the project by 7,170 VMT and 9,452 VMT, respectively. This suggests that drivers who would otherwise take a longer alternative route are able to use the Fenton Parkway Bridge and shorten their trip length, reducing VMT overall. In addition, for informational purposes, intersection and roadway capacity analysis was also conducted to provide insight about the operational effects of the project to the local transportation network with the addition of the new roadway connection. The proposed capacity of the Fenton Parkway Bridge and new/reconfigured intersections is sufficient for the estimated daily and peak hour traffic demand under Opening Year (2027) and Design Year (2050) conditions and will not cause any roadways to operate at an undesirable LOS. All transportation impacts were determined to be less than significant, and no mitigation measures were required.

The Tied-Arch Bridge Alternative would have the same capacity and would result in the same reduction in VMT as the proposed project. For informational purposes, the Tied-Arch Bridge Alternative would also not create any roadways to operate at an undesirable LOS. However, this alternative would result in greater impacts to the intersection at Camino Del Rio due to the need for much larger abutment foundations. Impacts to the transportation system would be the same as the proposed project if a tied-arch bridge design were to be utilized.

Utilities and Service Systems

The proposed project would not require a connection for water or sewer service. The project would generate solid waste during construction, and new stormwater infrastructure would be required to transport and treat stormwater runoff. The project would also require new electrical infrastructure and connections for the new intersection signals and security lighting along the bridge. However, all impacts were determined to be less than significant, and no mitigation was required.

The Tied-Arch Bridge Alternative would result in the same development or operational activities as the proposed project. A similar amount of solid waste would be generated during construction, and stormwater infrastructure would be required to treat and convey stormwater during construction and operation. Similar electrical infrastructure would also be required under the Tied-Arch Bridge Alternative. Therefore, impacts to utilities and service systems would be the same compared to the proposed project.

Wildfire

The project site is located within a VHFHSZ as mapped by CAL FIRE and the SDFD. The proposed project would provide a new north–south emergency evacuation route during wildfire or flooding events and would create a new access point to protect City-owned land within the San Diego River. The proposed project has the potential to exacerbate wildfire risk during construction; however, with standard procedures in place, ignition potential during construction would be reduced to less than significant.

The project site would still be within the VHFHSZ as mapped by CAL FIRE, and a new access point to protect City-owned land including environmentally sensitive habitats would be provided under the Tied-Arch Bridge Alternative. Under the Tied-Arch Bridge Alternative, the area will have improved emergency evacuation routes during flood events. The alternative would increase the ability for nearby fire stations to serve a greater area when multiple stations are responding to incidents and/or assisting with incidents in adjacent districts. Under the Tied-Arch Bridge Alternative, the community would benefit from improvements to emergency response times, increased access, and additional emergency evacuation/ingress options similar to the proposed project. Impacts associated with wildfire and emergency service would be the same under the Tied-Arch Bridge Alternative compared to the proposed project.

Comparison of Impacts to the Proposed Project

Compared to the proposed project, the visual impact from a tied-arch bridge would be more substantial based on the large, tall arches and cables used to suspend the bridge. The construction schedule would be approximately twice the length of the proposed cast-in-place construction method (120 weeks compared to 60 weeks), and as a result, impacts to air quality and GHG emissions from project construction would be increased under this alternative. There would be no piers within the river bottom, which could reduce potential impacts to cultural and tribal cultural resources, as well as geology and soils (i.e., paleontological resources). However, the depth and quantity of grading required to install the large abutment foundations would still have the potential to impact unknown subsurface resources, and mitigation would still be required.

The Tied-Arch Bridge Alternative would provide the essential north–south connection, which has been included as a necessary infrastructure project in several planning documents, including the Mission Valley Community Plan. The Tied-Arch Bridge Alternative would improve emergency evacuation routes during flood events, and it would enable nearby fire stations to serve a greater area when multiple stations are responding to incidents and/or covering adjacent districts. Similar to the proposed project, under the Tied-Arch Bridge Alternative the community would benefit from improvements to emergency response times, increased access, and additional emergency evacuation/ingress options.

Furthermore, supporting active transportation (walking, bicycling, and transit) is an important component of the City's CAP, which aims to achieve net zero greenhouse gas emissions by year 2025. Similar to the proposed project, the Tied-Arch Bridge Alternative would provide a safer and higher quality/lower stress environment for pedestrians and cyclists to help achieve the City's CAP targets. The Tied-Arch Bridge Alternative would also provide an additional routing option for transit connectivity and improve bus and shuttle access to the SDSU Mission Valley campus, which could reduce traffic congestion on other transit routes.

Relationship to Project Objectives

The Tied-Arch Bridge Alternative would achieve all of the project objectives with the exception of constructing a bridge that minimizes temporary and permanent impacts to sensitive biological resources within the City's Stadium Wetland Mitigation Site. This alternative would require additional clearing in the river bottom to accommodate larger pieces of equipment and would encroach into the City's Stadium Wetland Mitigation Site. While no piers would be installed within the river bottom, the Tied-Arch Bridge Alternative would not minimize impacts to sensitive biological resources.

This alternative supports the objectives of the project because it includes construction of a bridge expanding north–south vehicular, pedestrian, and bicycle mobility in eastern Mission Valley. It would also provide a high-water crossing and would improve emergency access and evacuation. However, the Tied-Arch Bridge Alternative would have no reduced direct and/or indirect impacts on any environmental resources when compared to the proposed project. In fact, this alternative would have greater impacts to aesthetics, air quality and GHG emissions (during construction), biological resources, energy, and noise (during construction).

Feasibility

The Tied-Arch Bridge Alternative would necessitate broader impact footprints within the existing street infrastructure along the southern edge of the river and the proposed street infrastructure along the northern edge of the river. The additional infrastructure required on either side of the river to support a tied-arch bridge would result in greater environmental impacts when compared to the proposed project. While this alternative is technically feasible, it is not the most efficient, desirable, or economical or least impactful alternative.

5.4.4 Suspension Bridge Alternative

Description of the Suspension Bridge Alternative

A suspension bridge carries vertical loads through curved cables in tension. These loads are transferred to the towers, which carry them by vertical compression to the ground and to the anchorages (back-stays), which must resist the inward and sometimes vertical pull of the cables (see Figure 5-3, Example Suspension Bridge). The Suspension Bridge Alternative would not involve the installation of any piers within the river bottom. Instead, the bridge would span the river using a pair of large towers (approximately 120 feet in height), which would be supported by large, deep foundations installed at the north and south banks of the river. Two additional foundations would need to be installed for the anchorages (back-stays) approximately 150 feet north of the north tower and 150 feet south of the south tower. This alternative would avoid direct cultural and tribal cultural resource impacts within the river, but would necessitate broader impact footprints within the existing street infrastructure on the south edge of the river and the proposed street infrastructure on the north edge of the river. This alternative would also require direct permanent impacts to biological resources within the same footprint as the proposed project and would require additional encroachment into the City's Stadium Wetland Mitigation Site. The construction method for installing a suspension bridge would require a greater area of vegetation to be cleared to construct the tall bridge towers. The Suspension Bridge Alternative would have increased impacts to biological resources compared to the proposed project.

Evaluation of Significant Impacts

Aesthetics and Visual Quality

Construction and operation of the proposed project would not result in significant impacts to existing views and visual quality and character or conflict with the underlying zoning and other regulations governing scenic quality. Once constructed, decorative bridge lighting elements supported by metal posts would operate during evening and night hours. While pole style and luminaire type has yet to be designed, selected lighting would generally be consistent with local (i.e., Community Plan and San Diego River Park Master Plan) policies concerning installation of LED streetlights with adaptive controls, shielding of fixtures, provision of adequate lighting for pedestrian and cyclists, and protection of biological resources. Therefore, it was determined that impacts would be less than significant and no mitigation would be required.

The Suspension Bridge Alternative would be constructed with the same length and width as the proposed project; however, the need for a vertical cable system to suspend the bridge deck would create more visual prominence compared to the proposed project. This alternative would also require additional lighting to highlight the structure compared to the proposed project. Additional lighting could have greater aesthetic impacts. Furthermore, the two towers would require wider abutments than the proposed project. The Suspension Bridge Alternative would alter the visual character or quality of the project site in a greater way compared to the proposed project.

Furthermore, while the San Diego River Park Master Plan does not specifically rule out suspension bridges, but it includes the following language related to bridge design: "Pedestrian/bicycle-only bridges should be designed to blend into the natural landscape character of the River Corridor Area through the use of natural materials or material that reflects the natural colors of the river valley. Bridges that cross significant habitat, or historic view sheds, should include a platform to allow for pedestrian viewing without obstructing mobility" (City of San Diego 2013). This language supports the intention that less prominent bridges in the river corridor should be considered. The large structures/towers required for a suspension bridge would not conform to the intent of the San Diego River Master Plan as it relates to bridges. Impacts to aesthetics and visual quality would be increased under this alternative.

Air Quality and Greenhouse Gas Emissions

Construction and operational activities associated with the proposed project would result in an increase in the emission of criteria pollutants and GHGs. Impacts related to project emissions of VOC, NO_X, CO, $PM_{2.5}$, and PM_{10} would be less than significant based on a comparison of the proposed project's construction and operational emissions to the SDAPCD thresholds. Further, the proposed project would result in less-than-significant impacts regarding conformity with the applicable air quality plan. The proposed project was determined not to result in significant impacts related to GHG emissions.

Under the Suspension Bridge Alternative, construction of the bridge would still occur, but temporary impacts relating to air quality and GHG emissions would increase. The construction schedule would be approximately twice the length of the proposed project (120 weeks compared to 60 weeks). Thus, the Suspension Bridge Alternative would impair the City's efforts to reduce GHG emissions in the near term when compared to the proposed project. Short-term construction-related impacts associated with air quality and GHG emissions would be greater under this alternative.

The Suspension Bridge Alternative would be consistent with the City's CAP, would provide an additional routing option for transit connectivity, and would improve bus and trolley access to the area, which could reduce traffic congestion on other transit routes. Because long-term operations under the Suspension Bridge Alternative would be similar to the proposed project, operational impacts associated with air quality and GHG emissions would be similar.

Biological Resources

The proposed project would result in significant impacts to special-status wildlife species, sensitive vegetation communities, federally and state-regulated wetlands/riparian areas, and native habitat without mitigation. Required mitigation measures would reduce the potential for direct and indirect impacts on special-status plant and wildlife species, sensitive natural communities, jurisdictional waters, and wildlife corridors by ensuring that special-status resources would be avoided to the extent feasible and compensatory mitigation provided to address significant impacts. However, even with all feasible mitigation applied, temporary indirect noise impacts to nesting birds would be significant and unavoidable.

Under the Suspension Bridge Alternative, there would be no piers installed in the river bottom. However, a greater area within the river bottom would need to be cleared (approximately 10,000 square feet of additional area), which would increase impacts to biological resources and encroach into the City's Stadium Wetland Mitigation Site. The construction method for installing a suspension bridge would require a greater area of vegetation to be cleared to construct the tall bridge towers. Impacts to biological resources would be greater under this alternative compared to the proposed project. In addition, the construction timeframe for a suspension bridge would be approximately 120 weeks in duration compared to the estimated 60 weeks of during for the proposed project. An increased construction schedule would result in a greater duration of indirect noise impacts to nesting birds and other sensitive receptors. Significant and unavoidable impacts would not be avoided under this alternative.

Cultural and Tribal Cultural Resources

The proposed project would contribute to potentially significant impacts to cultural resources, archeological resources, human remains, and tribal cultural resources. No cultural or archaeological resources were identified through the SCIC records search or through intensive pedestrian survey of the area. However, adjacent projects and NAHC consultation did identify the possibility that the project site may intersect previously unidentified cultural or tribal cultural resources. Impacts would be reduced to less than significant through implementation of mitigation measures.

Under the Suspension Bridge Alternative there would be ground-disturbing activities similar to the proposed project, with the exception that no piers would be installed in the river bottom; rather, additional ground disturbance would be required at the river embankments. This alternative would avoid direct cultural and tribal cultural resource impacts within the river, but would necessitate broader impact footprints within the existing street infrastructure along the southern edge of the river and the proposed street infrastructure along the northern edge of the river. Although the majority of deep ground disturbance would occur within previously disturbed areas outside the river bed, the potential to encounter unknown subsurface resources would still occur, and mitigation would still be required. Potentially significant impacts would be similar to the proposed project.

Energy

The proposed project would result in less-than-significant impacts related to use of energy resources because the proposed project would not engage in wasteful or unnecessary energy usage, and all new bridge lighting would be designed to meet current energy conservation building code requirements.

Due to its extended construction schedule, the Suspension Bridge Alternative would require approximately double the amount of energy during construction, and once in operation, energy usage would also be slightly more than the proposed project due to increased architectural lighting. Electricity and petroleum would be consumed during construction activities, but only electricity would be consumed during operation of the bridge. Lighting required along the bridge during operation would be slightly more under the Suspension Bridge Alternative and slightly more electricity would be consumed. Overall, impacts to energy would be increased compared to the proposed project.

Geology/Soils

The proposed project would result in potentially significant impacts to geology and soils, and more specifically, paleontological resources. These impacts are related to the potential for unknown, subsurface paleontological resources to be present. Mitigation measures are identified to ensure impacts to paleontological resources, associated with implementation of the proposed project would be fully mitigated to less-than-significant levels. Potential impacts associated with seismic ground-shaking, soil instability, erosion, lateral spreading, liquefaction, and landslides were all determined to be less than significant, and no mitigation was required.

Under the Suspension Bridge Alternative, there would be greater soil disturbance associated with construction, though no piers would be installed in the river bottom; rather, additional soil disturbance would be required at the river embankments. Potentially significant impacts would still arise regarding geology, soils, and paleontological resources due to the need for an increased construction footprint on either side of the bridge. The majority of ground disturbance would occur in previously disturbed areas as opposed to native soils in the river bed; however, the potential to encounter unknown subsurface resources would still occur, and mitigation would still be required. Potentially significant impacts would remain, and mitigation measures would be required.

Hazards and Hazardous Materials

The proposed project consists of the construction of a vehicular and pedestrian bridge and public right-of-way road improvements. As such, operation of the project would not result in the routine transport, use, or disposal of hazardous materials. Construction activities for the proposed project would result in hazardous materials (e.g., asphalt, fuels, oils, solvents, paints, lubricants, cleaners) routinely transported, stored, and used at the project site during construction. Compliance with the existing regulations would ensure the project would not create a significant hazard to the public or the environment involving transport of hazardous materials or through accident conditions. The project would not interfere negatively with implementation of an adopted emergency response plan or evacuation plan. In fact, the proposed project would improve overall emergency access compared to existing conditions. Impacts associated with hazards and hazardous materials would be less than significant, and no mitigation is required.

Under the Suspension Bridge Alternative, impacts related to hazards and hazardous materials during construction would be similar to the proposed project. The Suspension Bridge Alternative would also be required to comply with existing regulations to ensure the project would not create a significant hazard to the public or the environment.

Emergency access would also be improved under this alternative similar to the proposed project. Impacts associated with hazards and hazardous materials would be the same compared to the proposed project.

Hydrology and Water Quality

Design of the proposed project considered the hydrology of the project site and the need to accommodate future flooding of portions of the project site while providing for water quality treatment in compliance with all requirements, including implementation of the City's MS4 permit requirements and NPDES permit requirements. During precipitation events, substances on the bridge (e.g., oil, gas, grease) would be mobilized and potentially transported through relocated storm drains into the San Diego River, resulting in adverse water quality impacts to the river. However, in compliance with the Small MS4 Permit, stormwater runoff on the bridge would be directed to the north side of the bridge and into a proposed biofiltration basin on the west side of the bridge. The surface water contaminants would thus be filtered out of the stormwater prior to entering the river. In addition, the bridge would have over 6 feet of freeboard over the base flood elevation and would adequately convey the 100-year flow. With the inclusion of drainage and stormwater treatment improvements, the proposed project would result in less-than-significant impacts related to hydrology and water quality.

The Suspension Bridge Alternative would alter the project site through construction activities; however, no piers would be installed within the river channel. The work area on either side of the bridge would be greater compared to the proposed project but this alternative would result in similar changes to the existing hydrology on site and create a risk for pollutants to be released during storm events. Compliance with all water quality treatment requirements during construction would be necessary, and inclusion of the same biofiltration basin and stormwater conveyance systems would be required prior to operation. Impacts to hydrology and water quality would be the same compared to the proposed project.

Land Use and Planning

Impacts related to land use and planning would be less than significant because the proposed project would not physically divide an established community or result in a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. As analyzed in Section 3.10, the proposed project would be consistent with the MVCPU, the San Diego River Park Master Plan, and the City's CAP.

The proposed project will result in direct impacts to the San Diego River, which is in the MHPA. Section 1.4.2, General Planning and Design Guidelines, of the City of San Diego's MSCP Subarea Plan (City of San Diego 1997) states that "Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/emergency access roads. Local streets should not cross the MHPA except where needed to access isolated development areas." The proposed project is referenced in the Mission Valley Community Plan (adopted by the City in 2019) and is a long-sought infrastructure enhancement in the Mission Valley community as a means of connecting residents and businesses south of the San Diego River to land uses north of the river off Friars Road, including the SDSU Mission Valley development, which was approved by the Trustees of the CSU in 2020 (City of San Diego 2019a). SDSU Mission Valley includes Snapdragon Stadium and will include parks, open space, and new residential, commercial, and innovation-district uses. The proposed project would facilitate an additional vehicular, bicycle, and pedestrian connection between the businesses and residential areas north and south of the San Diego River. Therefore, the development of the bridge within the MHPA is consistent with the City of San Diego's MSCP Subarea Plan and there is no impact to the City of San Diego or other local agencies' abilities to implement the MSCP. All land use compatibility impacts would be less than significant.

The Suspension Bridge Alternative would be consistent with the City's current planning efforts, including the MVCPU, which calls for development of the Fenton Parkway Bridge. The Suspension Bridge Alternative would also be consistent with the City's CAP because it would provide a safer and higher quality/lower stress environment for pedestrians and cyclists to help achieve the City's CAP targets. In addition, the Suspension Bridge Alternative would help reduce GHG emissions from out-of-direction vehicle travel due to inefficient routing. The Suspension Bridge Alternative would be consistent with these recent planning efforts similar to the proposed project. Regarding impacts to the MHPA, the Suspension Bridge Alternative would result in greater disturbance to biological resources, despite the absence of piers in the river bottom, and would encroach further into the MHPA (approximately 10,000 square feet of area) compared to the proposed project. However, similar to the proposed project, this alternative would facilitate an additional vehicular, bicycle, and pedestrian connection between the businesses and residential areas north and south of the San Diego River. Therefore, the development of a tied-arch bridge within the MHPA is consistent with the City of San Diego's MSCP Subarea Plan and impacts to land use and planning would be the same compared to the proposed project.

Noise

The proposed project would result in less-than-significant impacts related to long-term ambient noise levels and generation of groundborne vibration. However, temporary construction noise impacts cannot be mitigated to a level of less than significant. This results in a significant and unavoidable temporary noise impacts on nesting birds. As stated in MM-BIO-15, to the extent feasible, on-site noise reduction techniques shall be implemented prior to construction activity to minimize construction noise levels and meet this Leq threshold at the nest location(s). During construction activity, a qualified biologist shall monitor the observed nest locations and document any signs of disturbance, which would trigger further implementation of noise reduction techniques or alternatives that may include utilization of quieter equipment, adherence to equipment maintenance schedules, shifting construction phase timelines so that they occur outside of the breeding season, installation of temporary sound barriers, or shifting construction work further from the nest. However, if none of the noise reduction techniques are feasible, impacts would be significant and unavoidable. The proposed project would result in the creation of additional vehicle trips on local roadways (i.e., Fenton Parkway, Mission City Parkway, and Camino Del Rio North), which could result in increased traffic noise levels at adjacent noise-sensitive land uses. However, the addition of proposed project traffic to the local roadway network would result in a CNEL increase of less than 3 dB, which is below the discernible level of change for the average healthy human ear. Generation of groundborne vibration during construction and operation was also determined to be less than significant.

The Suspension Bridge Alternative would alter the project site through construction activities; however, no installation of piers within the river channel would occur. There would be a doubling of the construction schedule, which would prolong the duration of construction noise impacts compared to the proposed project. Temporary construction noise impacts would still be significant and unavoidable. Noise during operation with the addition of vehicle traffic along the bridge would be similar to the proposed project. Long-term impacts to noise would be the same compared to the proposed project.

Transportation

With the proposed project, VMT is projected to decrease within a 3-mile and 5-mile radius of the project by 7,170 VMT and 9,452 VMT, respectively. This suggests that drivers who would otherwise take a longer alternative route are able to use the Fenton Parkway Bridge and shorten their trip length, reducing VMT overall. In addition, for informational purposes, intersection and roadway capacity analysis was also conducted to provide insight about the operational effects of the project to the local transportation network with the addition of the new roadway

connection. The proposed capacity of the Fenton Parkway Bridge and new/reconfigured intersections is sufficient for the estimated daily and peak hour traffic demand under Opening Year (2027) and Design Year (2050) conditions and will not cause any roadways to operate at an undesirable LOS. All transportation impacts were determined to be less than significant, and no mitigation measures were required.

The Suspension Bridge Alternative would have the same capacity and would result in the same reduction in VMT as the proposed project. For informational purposes, the Suspension Bridge Alternative would also not cause any roadways to operate at an undesirable LOS. However, this alternative would result in greater impacts to the intersection at Camino Del Rio due to the need for much larger abutment foundations. The cable anchorage systems (back-stays) would span across the Camino Del Rio intersection to the south, creating vertical clearance issues for traffic. Impacts to transportation infrastructure would be greater, but the same reduction in VMT would be realized if a suspension bridge design were to be utilized.

Utilities and Service Systems

The proposed project would not require a connection for water or sewer service. The project would generate solid waste during construction, and new stormwater infrastructure would be required to transport and treat stormwater runoff. The project would also require new electrical infrastructure and connections for the new intersection signals and security lighting along the bridge. However, all impacts were determined to be less than significant, and no mitigation was required.

The Suspension Bridge Alternative would result in the same development or operational activities as the proposed project. A similar amount of solid waste would be generated during construction, and stormwater infrastructure would be required to treat and convey stormwater during construction and operation. Similar electrical infrastructure would also be required under the Suspension Bridge Alternative. Therefore, impacts to utilities and service systems would be the same compared to the proposed project.

Wildfire

The project site is located within a VHFHSZ as mapped by CAL FIRE and the SDFD. The proposed project would provide a new north–south emergency evacuation route during wildfire or flooding events and would create a new access point to protect City-owned land within the San Diego River. The proposed project has the potential to exacerbate wildfire risk during construction; however, with standard procedures in place, ignition potential during construction would be reduced to less than significant.

The project site would still be within the VHFHSZ as mapped by CAL FIRE, and a new access point to protect City-owned land including environmentally sensitive habitats would be provided under the Suspension Bridge Alternative. Under the Suspension Bridge Alternative the area will have improved emergency evacuation routes during flood events. The alternative would increase the ability for nearby fire stations to serve a greater area when multiple stations are responding to incidents and/or assisting with incidents in adjacent districts. Under the Suspension Bridge Alternative, the community would benefit from improvements to emergency response times, increased access, and additional emergency evacuation/ingress options similar to the proposed project. Impacts associated with wildfire and emergency service would be the same under the Suspension Bridge Alternative compared to the proposed project.

Comparison of Impacts to the Proposed Project

Compared to the proposed project, the visual impact from a suspension bridge would be more substantial due to the 120-foot towers and use of cables to suspend the bridge. The construction schedule would be approximately twice the length of the cast-in-place construction method, which was used as a worst-case scenario for the proposed project (120 weeks compared to 60 weeks), and as a result, impacts to air and GHG emissions with project construction would be increased under this alternative. There would be no piers within the river bottom, which could reduce potential impacts to cultural and tribal cultural resources and geology and soils (i.e., paleontological resources). However, the depth and quantity of grading required to install the large foundations would still have the potential to impact unknown subsurface resources, and mitigation would still be required.

The Suspension Bridge Alternative would provide the essential north–south connection, which has been included as a necessary infrastructure project in several planning documents, including the Mission Valley Community Plan. The Suspension Bridge Alternative would improve emergency evacuation routes during flood events, and it would enable nearby fire stations to serve a greater area when multiple stations are responding to incidents and/or covering adjacent districts. Similar to the proposed project, under the Suspension Bridge Alternative the community would benefit from improvements to emergency response times, increased access, and additional emergency evacuation/ingress options.

Furthermore, supporting active transportation (walking, bicycling, and transit) is an important component of the CAP, which aims to achieve net zero greenhouse gas emissions by year 2025. Similar to the proposed project, the Suspension Bridge Alternative would provide a safer and higher quality/lower stress environment for pedestrians and cyclists to help achieve the City's CAP targets. The Suspension Bridge Alternative would also provide an additional routing option for transit connectivity and improve bus and shuttle access to SDSU Mission Valley, which could reduce traffic congestion on other transit routes.

Relationship to Project Objectives

The Suspension Bridge Alternative would achieve all of the project objectives with the exception of constructing a bridge that minimizes temporary and permanent impacts to sensitive biological resources within the City's Stadium Wetland Mitigation Site. This alternative would require additional clearing in the river bottom and would encroach into the City's Stadium Wetland Mitigation Site. While no piers would be installed within the river bottom, the Suspension Bridge Alternative would not minimize impacts to sensitive biological resources.

This alternative supports the project objectives because it includes construction of a bridge expanding north–south vehicular, pedestrian, and bicycle mobility in eastern Mission Valley. It would also provide a high-water crossing and would improve emergency access and evacuation. However, the Suspension Bridge Alternative would have no reduced direct and/or indirect impacts on any environmental resources when compared to the proposed project. In fact, this alternative would have greater impacts to aesthetics, air quality and GHG emissions (during construction), biological resources, energy, noise (during construction), and transportation infrastructure.

Feasibility

The Suspension Bridge Alternative would necessitate broader impact footprints within the existing street infrastructure along the southern edge of the river and the proposed street infrastructure along the northern edge of the river. The additional infrastructure required on either side of the river to support a suspension bridge would result in greater environmental impacts when compared to the proposed project. The cable anchorage systems

(back-stays) would span across the Camino Del Rio intersection to the south, creating vertical clearance issues for traffic. While this alternative is technically feasible, it is not the most efficient, desirable, economical, or least impactful alternative.

5.5 Environmentally Superior Alternative

The No Project (No Build) Alternative is the environmentally superior alternative because it would involve no changes on the project site. The project site would remain in its current condition, effectively eliminating those project impacts discussed in this EIR. There would be no change to aesthetics related to a bridge overpass. There would be no air quality or GHG emissions associated with project construction, and the No Project (No Build) Alternative would not temporarily increase noise in the project area. There would be no land disturbance so there would be no impacts to biological resources, cultural resources, tribal cultural resources, or geology and soils (i.e., paleontological resources), and no mitigation would be required. Under the No Project (No Build) Alternative, no bridge would be constructed and there would be no change in existing conditions.

However, under the No Project (No Build) Alternative, an essential north–south connection that has been included as a necessary infrastructure project in several planning documents, including the Mission Valley Community Plan —and that is considered an Essential Public Project by the City—would not be constructed. The area would continue to have impaired emergency evacuation routes during flood events, which would hamper the ability of nearby fire stations to serve a greater area when multiple stations are responding to incidents and/or covering adjacent districts. Under the No Project (No Build) Alternative, the community would not benefit from improvements to emergency response times, increased access, and additional emergency evacuation/ingress options that the proposed project would provide.

The No Project (No Build) Alternative would not achieve any of the project objectives. Specifically, the No Project (No Build) Alternative would not include construction of a bridge expanding north–south vehicular, pedestrian, or bicycle mobility in eastern Mission Valley. No high-water crossing would be constructed and emergency access and evacuation would not be improved. While the No Project (No Build) Alternative would not have any direct or indirect impacts to biological, tribal cultural, or cultural resources as identified with the proposed project, the objectives of the project would not be met.

In accordance with CEQA, if the environmentally superior alternative is the No Project (No Build) Alternative, the EIR must also identify an environmentally superior alternative among the other alternatives (Section 15126[e][2]). Table 5-1 provides a summary comparison of the significant impacts attributable to each of the alternatives relative to the proposed project.

Regarding the Tied-Arch Bridge Alternative, the construction schedule would be approximately twice the length of the proposed cast-in-place construction method, which was used as a worst-cast scenario for the proposed project (120 weeks compared to 60 weeks), and as a result, impacts to air quality and GHG emissions with project construction would be increased under this alternative. There would be no piers within the river bottom, which could reduce potential impacts to cultural and tribal cultural resources and geology and soils (i.e., paleontological resources). However, the depth and quantity of grading required to install the large abutment foundations would still have the potential to impact unknown subsurface resources and mitigation would still be required. This alternative would also require direct permanent impacts to biological resources within the same footprint as the proposed project and would require additional encroachment into the City's Stadium Wetland Mitigation Site. The construction method for installing a tied-arch bridge would require larger cranes within the

river corridor, and a greater area of vegetation would need to be cleared to accommodate the tall temporary arch supports. The Tied-Arch Bridge Alternative would have increased impacts to biological resources compared to the proposed project.

The Tied-Arch Bridge Alternative would provide the essential north–south connection, which has been included as a necessary infrastructure project in several planning documents, including the Mission Valley Community Plan. The Tied-Arch Bridge Alternative would improve emergency evacuation routes during flood events, and it would enable nearby fire stations to serve a greater area when multiple stations are responding to incidents and/or covering adjacent districts. Similar to the proposed project, under the Tied-Arch Bridge Alternative the community would benefit from improvements to emergency response times, increased access, and additional emergency evacuation/ingress options. Similar to the proposed project, the Tied-Arch Bridge Alternative would provide a safer and higher quality/lower stress environment for pedestrians and cyclists to help achieve the City's CAP targets.

The Tied-Arch Bridge Alternative would achieve all of the project objectives with the exception of constructing a bridge that minimizes temporary and permanent impacts to sensitive biological resources within the City's Stadium Wetland Mitigation Site. This alternative would require additional clearing in the river bottom to accommodate larger pieces of equipment and would encroach into the City's Stadium Wetland Mitigation Site. The additional infrastructure required on either side of the river to support a tied-arch bridge would result in greater environmental impacts when compared to the proposed project. While this alternative is technically feasible, it is not the most efficient, desirable, or economical alternative. The Tied-Arch Bride Alternative is not the environmentally superior alternative.

Similarly, the Suspension Bridge Alternative would not involve the installation of any piers within the river bottom. Instead, the bridge would span the river using a pair of large towers (approximately 120 feet in height), that would be supported by large, deep foundations installed at the north and south banks of the river. Two additional foundations would need to be installed for the anchorages (back-stays) approximately 150 feet north of the north tower and 150 feet south of the south tower. This alternative would avoid direct cultural and tribal cultural resource impacts within the river, but would necessitate broader impact footprints within the existing street infrastructure on the south edge of the river and the proposed street infrastructure on the north edge of the river. This alternative would also require direct permanent impacts to biological resources within the same footprint as the proposed project and would require additional encroachment into the City's Stadium Wetland Mitigation Site. The construction method for installing a suspension bridge would require a greater area of vegetation to be cleared to construct the tall bridge towers. The Suspension Bridge Alternative would have increased impacts to biological resources compared to the proposed project.

The Suspension Bridge Alternative would also provide the essential north–south connection and would improve emergency evacuation routes during flood events. The community would benefit from improvements to emergency response times, increased access, and additional emergency evacuation/ingress options. The Suspension Bridge Alternative would also provide a safer and higher quality/lower stress environment for pedestrians and cyclists to help achieve the City's CAP targets.

The Suspension Bridge Alternative would achieve all of the project objectives with the exception of constructing a bridge that minimizes temporary and permanent impacts to sensitive biological resources within the City's Stadium Wetland Mitigation Site. This alternative would require additional clearing in the river bottom to accommodate larger pieces of equipment and would encroach into the City's Stadium Wetland Mitigation Site. The additional infrastructure required on either side of the river to support a suspension bridge would result in

greater environmental impacts when compared to the proposed project. While this alternative is technically feasible, it is not the most efficient, desirable, or economical alternative. The Suspension Bride Alternative is not the environmentally superior alternative.

The Pedestrian/Bicycle Only Bridge Alternative would consist of a narrower bridge with no vehicle access. This alternative would still require either two or three piers to be installed in the river bottom, but the piers would only have one column compared to two required for the proposed project. Construction of the Pedestrian/Bicycle Only Bridge Alternative would require a reduced construction duration compared to the cast-in-place construction method, which was used as a worst-case scenario under the proposed project (54 weeks compared to 60 weeks). Reduced impacts to air quality and GHG emissions would occur under this alternative because the bridge would be smaller and have a reduced construction schedule. This alternative would result in a smaller overall footprint and less area within the river bottom would need to be cleared. There would be reduced land disturbance with the installation of this alternative compared to the project, so potential impacts to biological resources, cultural and tribal cultural resources, and geology and soils (i.e., paleontological resources) would be slightly reduced. However, impacts would still be significant and mitigation identified to reduce these impacts would still be required under the Pedestrian/Bicycle Only Bridge Alternative.

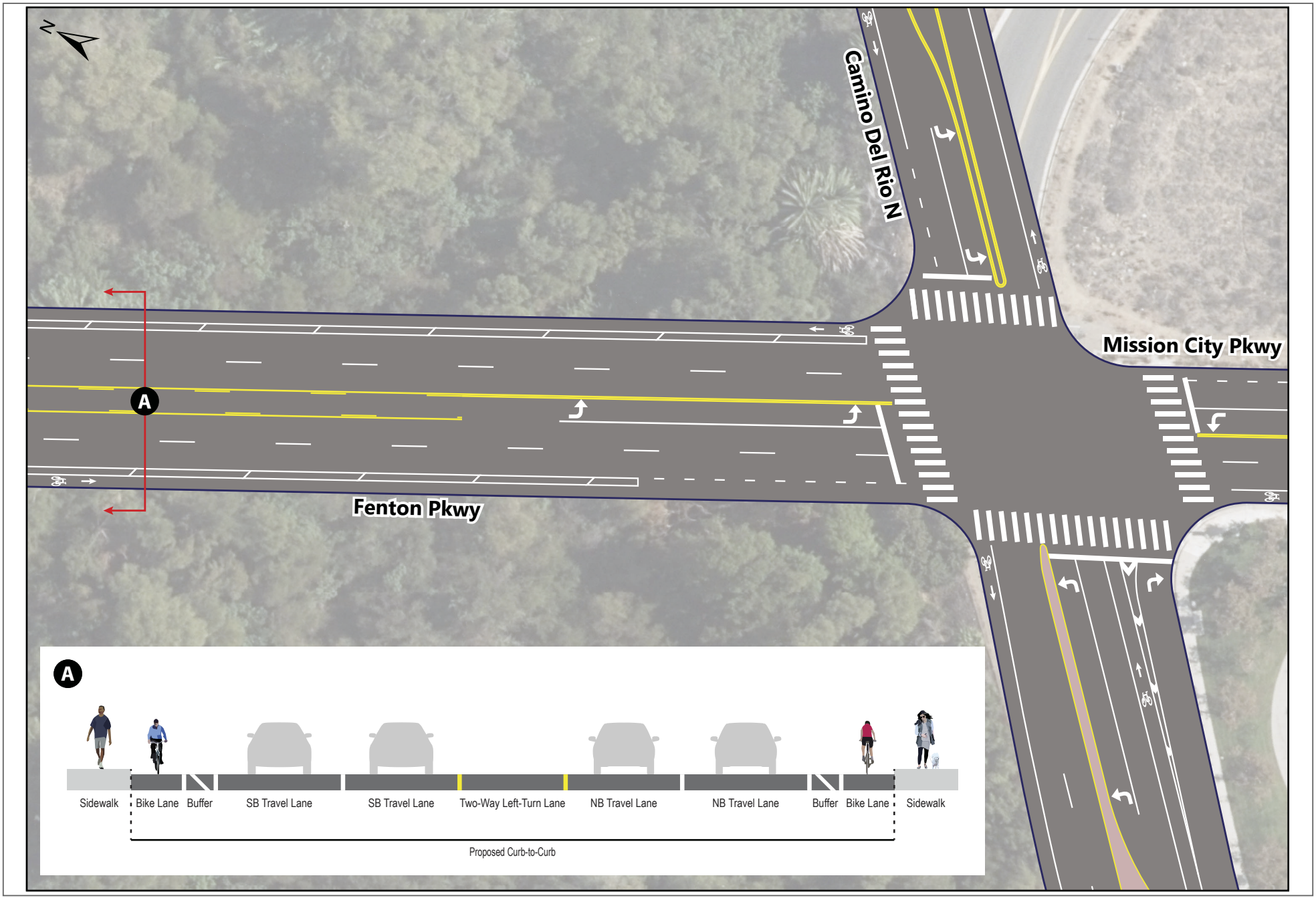
However, this alternative would not provide a vehicular connection and therefore would not achieve the VMT reduction that would be realized with the proposed project, resulting in increased impacts to air quality and GHG compared to the proposed project in the long term. The Pedestrian/Bicycle Only Bridge Alternative would provide an additional north–south connection, albeit more limited in modal use, which has been included as a necessary infrastructure project in several planning documents, including the Mission Valley Community Plan. The Pedestrian/Bicycle Only Bridge Alternative would not necessarily improve emergency evacuation routes during flood events as it would only allow pedestrians and bicycles, and no emergency vehicles would have access. Therefore, it would not enable nearby fire stations to serve a greater area when multiple stations are responding to incidents and/or covering adjacent districts. Under the Pedestrian/Bicycle Only Bridge Alternative, the community would not benefit from improvements to emergency response times, increased access, and additional emergency evacuation/ingress options, as no vehicles would be allowed across the bridge.

The Pedestrian/Bicycle Only Bridge Alternative would achieve some, but not all of the project objectives. This alternative includes construction of a bridge expanding north–south pedestrian and bicycle mobility in eastern Mission Valley. However, improving vehicular mobility in eastern Mission Valley would not be achieved with this alternative. This alternative would provide a high-water crossing and would improve emergency access and evacuation, only for pedestrians and cyclists. Overall, because the Pedestrian/Bicycle Only Bridge Alternative would have reduced direct environmental impacts during construction, it would be considered the environmentally superior alternative.

Environmental Impacts	Proposed Project	No Project	Pedestrian/Bicycle Only Bridge Alternative	Tied-Arch Bridge Alternative	Suspension Bridge
Aesthetics	**Less than significant** project-level and cumulative impacts	**Reduced** impact compared to the proposed project; No Impact.	**Similar** impacts compared to proposed project; remains less than significant.	**Greater** impacts compared to the proposed project; potentially significant.	**Greater** impacts compared to the proposed project; potentially significant.
Air Quality	**Less than significant** project-level and cumulative impacts	**Reduced** impact in the near-term; No impact. **Less Beneficial** in the long-term compared to the proposed project.	**Slightly Reduced** impact during construction; remains less than significant. **Less Beneficial** during operation compared to the proposed project.	**Greater** impact during construction; potentially significant. **Similar** impact during operation compared to the proposed project; remains less than significant.	**Greater** impact during construction; potentially significant. **Similar** impact during operation compared to the proposed project; remains less than significant.
Biological Resources	**Significant and unavoidable** project-level and cumulative impacts	**Reduced** impact compared to the proposed project; No Impact.	**Slightly Reduced** impact compared to proposed project; remains significant and unavoidable with mitigation.	**Greater** impact compared to the proposed project; remains significant and unavoidable with mitigation.	**Greater** impact compared to the proposed project; remains significant and unavoidable with mitigation.
Cultural Resources	**Less than significant with mitigation** project-level and cumulative impacts	**Reduced** impact compared to the proposed project; No Impact.	**Slightly Reduced** impact compared to the proposed project; remains less than significant with mitigation.	**Similar** impact compared to the proposed project; remains less than significant with mitigation.	**Similar** impact compared to the proposed project; remains less than significant with mitigation.
Energy	**Less than significant** project-level and cumulative impacts.	**Reduced** impact compared to the proposed project; No Impact.	**Similar** impacts compared to proposed project; remains less than significant.	**Greater** impact compared to the proposed project; remains less than significant.	**Greater** impact compared to the proposed project; remains less than significant.

Environmental Impacts	Proposed Project	No Project	Pedestrian/Bicycle Only Bridge Alternative	Tied-Arch Bridge Alternative	Suspension Bridge
Geology and Soils	**Less than significant with mitigation** project-level and cumulative impacts	**Reduced** impact compared to the proposed project; No Impact.	**Slightly Reduced** impact compared to proposed project; remains less than significant with mitigation.	**Similar** impact compared to the proposed project; remains less than significant with mitigation.	**Similar** to proposed project; remains less than significant with mitigation.
Greenhouse Gas Emissions	**Less than significant** project-level and cumulative impacts	**Reduced** impact in the near-term; No impact. **Less Beneficial** in the long-term compared to the proposed project.	**Slightly Reduced** impact during construction; remains less than significant. **Less Beneficial** during operation compared to the proposed project.	**Greater** impact during construction; potentially significant. **Similar** impact during operation compared to the proposed project; remains less than significant.	**Greater** impact during construction; potentially significant. **Similar** impact during operation compared to the proposed project; remains less than significant.
Hazards and Hazardous Materials	**Less than significant** project-level and cumulative impacts	**Reduced** impact compared to the proposed project; No Impact.	**Similar** impacts compared to the proposed project; remains less than significant.	**Similar** impacts compared to the proposed project; remains less than significant.	**Similar** impacts compared to the proposed project; remains less than significant.
Hydrology and Water Quality	**Less than significant** project-level and cumulative impacts	**Reduced** impact compared to the proposed project; No Impact.	**Similar** impacts compared to proposed project; remains less than significant.	**Similar** impacts compared to the proposed project; remains less than significant.	**Similar** impacts compared to the proposed project; remains less than significant.
Land Use and Planning	**Less than significant** project-level and cumulative impacts	**Less Beneficial** compared to the proposed project; remains less than significant.	**Less Beneficial** compared to the proposed project; remains less than significant.	**Similar** impacts compared to the proposed project; remains less than significant.	**Similar** impacts compared to the proposed project; remains less than significant.
Noise	**Significant and unavoidable** project-level and cumulative impacts	**Reduced** impact compared to the proposed project; No Impact.	**Slightly Reduced** impact compared to the proposed project; remains significant and unavoidable.	**Greater** impact during construction; remains significant and unavoidable. **Similar** impact during	**Greater** impact during construction; remains significant and unavoidable. **Similar** impact during

Environmental Impacts	Proposed Project	No Project	Pedestrian/Bicycle Only Bridge Alternative	Tied-Arch Bridge Alternative	Suspension Bridge
				operation compared to the proposed project; remains less than significant.	operation compared to the proposed project; remains less than significant.
Transportation and Traffic	**Less than significant** project-level and cumulative impacts	**Less Beneficial** than proposed project; remains less than significant.	**Less Beneficial** compared to the proposed project; remains less than significant.	**Similar** impact compared to the proposed project; remains less than significant.	**Greater** impact to transportation infrastructure and **Similar** reduction in VMT compared to the proposed project; remains less than significant.
Tribal Cultural Resources	**Less than significant with mitigation** project-level and cumulative impacts	**Reduced** impact compared to the proposed project; No Impact.	**Slightly Reduced** impact compared to proposed project; remains less than significant with mitigation.	**Similar** impacts compared to the proposed project; remains less than significant with mitigation.	**Similar** impacts compared to the proposed project; remains less than significant with mitigation.
Utilities and Services Systems	**Less than significant** project-level and cumulative impacts	**Reduced** impact compared to the proposed project; No Impact.	**Similar** impacts compared to the proposed project; remains less than significant.	**Similar** impacts compared to the proposed project; remains less than significant.	**Similar** impacts compared to the proposed project; remains less than significant.
Wildfire	**Less than significant** project-level and cumulative impacts	**Less Beneficial** than proposed project; remains less than significant.	**Less Beneficial** than proposed project; remains less than significant.	**Similar** impacts compared to the proposed project; remains less than significant.	**Similar** impacts compared to the proposed project; remains less than significant.



SOURCE: MISSION VALLEY COMMUNITY PLAN UPDATE 2018

FIGURE 5-1

Fenton Parkway Bridge 4-Lane as Proposed in MVCP

Fenton Parkway Bridge Project EIR

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FIGURE 5-2

Tied-Arch Bridge Example

Fenton Parkway Bridge Project EIR

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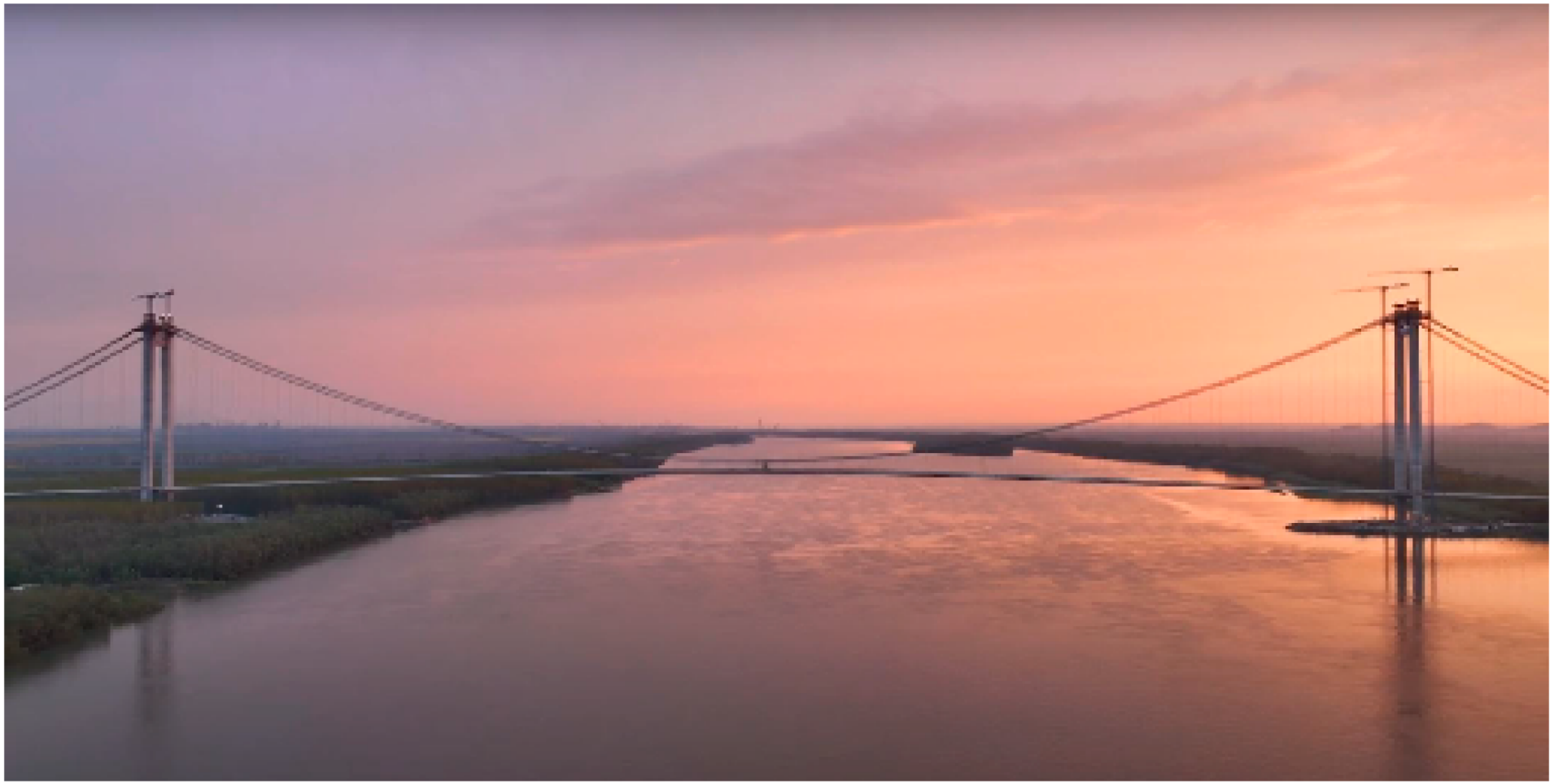

FIGURE 5-3

Suspension Bridge Example

Fenton Parkway Bridge Project EIR

DUDEK

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SOURCE: AERIAL-ESRI IMAGERY SERVICE 2023

DUDEK

0 750 1,500 Feet

FIGURE 5-4

Existing Bridge Retrofit Alternative

Fenton Parkway Bridge Project EIR

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