Draft
Environmental Impact Report for the West Broadway Specific Plan

Community Development Department
City of Sacramento
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Sacramento, CA 95811

December 2019

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Prepared for

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LIST OF ABBREVIATIONS

°F	degrees Fahrenheit
AB	Assembly Bill
ACM	asbestos containing material
ADT	average daily traffic
ADWF	Average Dry Weather Flow
AF	acre-feet
AFV	alternative fuel vehicle
AFY	acre-feet per year
AQMP	air quality mitigation plan
AST	above-ground storage tank
BACT	best available control technologies
Blueprint	Sacramento Region Preferred Blueprint
BMP	best management practice
BMP	best management practices
C&D	construction and demolition
CA SDWA	California Safe Drinking Water Act
CAA	federal Clean Air Act
CAAA	Clean Air Act Amendments of 1990
CAAQS	California ambient air quality standards
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Occupational Safety and Health Administration
CalARP	California Accidental Release Prevention Program
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAP Checklist	Climate Action Plan Consistency Review Checklist
CARB	California Air Resources Board
CASGEM	California Statewide Groundwater Elevation Monitoring
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDPH	California Department of Public Health
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CGS	California Geological Survey
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
City	City of Sacramento
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide

CO_2e	carbon dioxide-equivalent
CPUC	California Public Utilities Commission
CRPR	California Rare Plant Rank
CSCGMP	Central Sacramento County Groundwater Management Plan
cSEL	accumulated sound exposure level
CSO	Combined Sewer Outflow
CSS	Combined Sewer System
CSSIP	Combined Sewer System Improvement Plan
CVFPB	Central Valley Flood Protection Board
CVFPP	Central Valley Flood Protection Plan
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
CWTP	Combined Wastewater Treatment Plant
dB	decibels
Delta	Sacramento River–San Joaquin River Delta
diesel PM	particulate matter exhaust from diesel engines
DOF	California Department of Finance
DOT	U.S. Department of Transportation
DPS	Distinct Population Segment
Draft EIR	draft environmental impact report
DSH	diameter at standard height
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EAP	Energy Action Plan
EB	eastbound
ECOS	Environmental Conservation Online System
EIR	environmental impact report
EMD	Hazardous Materials Division of the Sacramento County Environmental Management Department
EMS	Emergency Medical Services
EMT	emergency medical technician
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act of 1992
EPCRA	Emergency Planning and Community Right-to-Know Act of 1986
ESA	Environmental Site Assessment
ESD	Equivalent Single-Family Dwelling
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FR	Federal Register
FTA	Federal Transit Administration
FTE	full-time equivalent
FWTP	Fairbairn Water Treatment Plant
GBV	Ground-Borne Vibration
General Permit	General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities
GHG	greenhouse gas
GIS	geographic information systems
GMP	Groundwater Management Plan
gpd	gallons per day
gpm	gallons per minute
GSA	Groundwater Sustainability Agency
HAP	hazardous air pollutant
HCM	Highway Capacity Manual

HMBP	Hazardous Materials Business Plan
Hz	hertz
I-5	Interstate 5
I-80	Interstate 80
IEPR	Integrated Energy Policy Report
in/sec	inches per second
IPaC	Information for Planning and Consultation
lb/day	pounds per day
LBP	lead-based paint
LCFS	Low Carbon Fuel Standard
L_{dn}	Day-Night Level
LEED	Leadership in Energy and Environmental Design
L_{eq}	Equivalent Continuous Sound Level
LID	Low Impact Development
L_{max}	Maximum Sound Level
LOS	level of service
LTCP	Long Term Control Plan
LUST	leaking underground storage tank
MCL	Maximum Contaminant Levels
MEI	Maximum Exposed Individual
MEIR	Master Environmental Impact Report
mgd	million gallons per day
MLD	most likely descendant
MMI	Modified Mercalli Intensity Scale
MMP	Mitigation Monitoring Program
MMPA	Marine Mammal Protection Act
MMT	million metric tons
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
MOU	Memorandum of Understanding
mPa	micro-Pascals
mph	miles per hour
MPO	metropolitan planning organization
MRZ	Mineral Resource Zone
MS4	municipal separate storm sewer system
MT CO_2e/year	metric tons of carbon dioxide equivalent per year
MTIP	Metropolitan Transportation Improvement Program
MTP/SCS	Metropolitan Transportation Plan / Sustainable Communities Strategy
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NARS	North Area Recovery Station
NEHRP	National Earthquake Hazards Reduction Program
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NMC	Nine Minimum Controls
NMFS	National Oceanic and Atmospheric Administration's National Marine Fisheries Service
NO	nitric oxide
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
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration

ozone	photochemical smog
PCB	polychlorinated biphenyl
PG&E	Pacific Gas & Electric Company
PHF	peak hour factor
PHS	Public Health and Safety
PIF	Park Impact Fee
PM	particulate matter
PM_{10}	respirable particulate matter with aerodynamic diameter of 10 micrometers or less
$PM_{2.5}$	fine particulate matter with aerodynamic diameter of 2.5 micrometers or less
Porter-Cologne Act	Porter-Cologne Water Quality Control Act of 1970
ppm	parts per million
PPV	Peak Particle Velocity
PRC	Public Resources Code
project	West Broadway Specific Plan
PSA	purveyor specific agreement
psi	pounds per square inch
PUD	Planned Unit Development
PVC	polyvinyl chloride
RCP	reinforced concrete pipe
RCRA	Resource Conservation and Recovery Act
Regional San	Regional Sanitation District
RHNP	regional housing needs plan
RMP	risk management plan
RMS	root mean square
ROG	reactive organic gas
RPS	renewable portfolio standard
RT	Regional Transit District
RWQCB	regional water quality control board
SACOG	Sacramento Area Council of Governments
SacRT	Sacramento Regional Transit District
SAF Plan	State Alternative Fuels Plan
SB	Senate Bill
SCMP	Subregional Corridor Mitigation Program
SCS	sustainable communities strategy
SCUSD	Sacramento City Unified School District
SDWA	Safe Drinking Water Act
SEL	sound exposure level
SETA	Sacramento Employment & Training Agency
sf	square feet
SFD	Sacramento Fire Department
SGA	Sacramento Groundwater Authority
SGMA	Sustainable Groundwater Management Act of 2014
SHRA	Sacramento Housing and Redevelopment Agency
SIP	State implementation plan
SMAQMD	Sacramento Air Quality Management District
SMUD	Sacramento Municipal Utility District
SO_2	sulfur dioxide
SPCC	Spill Prevention, Control, and Countermeasure
SPD	Special Planning District
SPD	Sacramento Police Department
Specific Plan Area	West Broadway Specific Plan Area
SPL	sound pressure level
SQDM	Stormwater Quality Design Manual

SQIP	stormwater quality improvement plan
SRA	shaded riverine aquatic
SRCSD	Sacramento Regional County Sanitation District
SRRE	Source Reduction and Recycling Elements
SRTS	Sacramento Recycling and Transfer Station
SRWWTP	Sacramento Regional Wastewater Treatment Plant
SSF	Sacramento Steps Forward
STAA	Service Transportation Assistance Act
State Water Board	State Water Resources Control Board
SVAB	Sacramento Valley Air Basin
SVP	Society of Vertebrate Paleontology
SWA	Solid Waste Authority
SWPPP	stormwater pollution prevention plan
SWRCB-DDW	State Water Resources Control Board Division of Drinking Water
TAC	toxic air contaminant
TCR	*Transportation Corridor Report*
The Mill	The Mill at Broadway
TMDL	total maximum daily load
tpy	tons per years
U.S. 50	U.S. Highway 50
UAIC	United Auburn Indian Community of the Auburn Rancheria
UFC	Uniform Fire Code
USACE	U.S. Army Corps of Engineers
USBR	United States Bureau of Reclamation
USC	U.S. Code
USFWS	U.S. Fish and Wildlife Service
UWMP	Urban Water Management Plan
UWMPA	Urban Water Management Planning Act
VCP	vitrified clay pipe
VdB	vibration decibels
VMT	vehicle miles traveled
WBSP	West Broadway Specific Plan
WDR	waste discharge requirement
WFA	Water Forum Agreement
WQO	Water Quality Objective
WSA	Water Supply Assessment
ZEV	zero-emission vehicle
ZNE	zero net energy

EXECUTIVE SUMMARY

INTRODUCTION

This summary is provided in accordance with California Environmental Quality Act Guidelines (State CEQA Guidelines) Section 15123. As stated in Section 15123(a), "an EIR [environmental impact report] shall contain a brief summary of the proposed action and its consequences. The language of the summary should be as clear and simple as reasonably practical." As required by the Guidelines, this chapter includes (1) a summary description of the West Broadway Specific Plan Project (project), (2) a synopsis of environmental impacts and recommended mitigation measures (Table ES-1), (3) identification of the alternatives evaluated and of the environmentally superior alternative, and (4) a discussion of the areas of controversy associated with the project.

SUMMARY DESCRIPTION OF THE PROJECT

Project Location

The West Broadway Specific Plan Area (Specific Plan Area) is located in the City of Sacramento (City), to the south of downtown. It is centrally located within the greater Sacramento region, including the cities of West Sacramento, Davis, and Woodland to the west; Elk Grove to the south; Rancho Cordova and Citrus Heights to the east; and Roseville and Rocklin to the north. The Specific Plan Area is located within the Upper Land Park neighborhood of Sacramento, south of the Central City, and across the Sacramento River from the Pioneer Bluffs and Stone Locks areas of West Sacramento (Figure 2-1). The Specific Plan Area encompasses approximately 240 acres, bounded by the Sacramento River on the west; Broadway and Business 80/ U.S. Highway 50 (U.S. 50) to the north; Muir Way and 5th Street to the east; and 4th Avenue and Merkley Way to the south (Figure 2-2). Interstate 5 (I-5) travels north-south through the western portion of the Specific Plan Area and separates Miller Regional Park and the industrial lands east of it from the rest of the Specific Plan Area.

Background and Need for the Project

Historically, development within the Specific Plan Area has occurred sporadically and on a parcel-by-parcel basis, although there are exceptions: The Marina Vista and Alder Grove public housing projects, which are located in the southern and eastern portions of the Specific Plan Area, were originally constructed in the 1940s; the Northwest Land Park Planned Unit Development (PUD) (also referred to as The Mill), a four-phase, residential community within the central portion of the Specific Plan Area, was initially approved by the City in 2011 and is currently under construction. Phase 5 of The Mill, which was not a part of the PUD, was submitted to the City for review in 2018. Miller Regional Park, located on the west boundary of the Specific Plan Area, was developed beginning in 2015.

Similarly, various historic planning efforts have focused on discrete land use types and developments within the Specific Plan Area, including: the Sacramento Riverfront Master Plan, the Docks Specific Plan, the Northwest Land Park PUD Guidelines, and the Urban Land Institute's – Broadway Vision Plan. More recently, revitalization planning for the Specific Plan Area occurred through preparation of the Upper Land Park-Broadway Choice Neighborhoods Transformation Plan, addressing the Marina Vista and Alder Grove public housing communities. Two other planning projects, the Broadway Complete Streets Plan and Broadway Bridge Project, are currently underway.

Project Objectives

The overall goal of the WBSP is to provide for the orderly and systematic integration of land uses within the WBSP area that is consistent with the City's goals and maximizes opportunities afforded by the area's proximity to the Sacramento River and the downtown area. More specifically, the objectives of the WBSP are to:

- Accommodate growth that increases the long-term economic sustainability, equity and well-being, and protection of important environmental resources in the Specific Plan Area.
- Provide for the orderly and systematic integration of land uses within the WBSP area that maximizes opportunities afforded by the area's proximity to the Sacramento River and Downtown Sacramento.
- Facilitate new mixed-use development, reuse, and redevelopment within the Industrial Subarea lands along 1st Avenue and 5th Street.
- Promote new infill residential development and redevelopment within the Specific Plan Area that supports a mixed-income community and a variety of housing choices, including market rate and affordable housing options for low-income, very low-income, and extremely low-income households.
- Promote neighborhood-serving uses, including a grocery store and venue(s) for after- school programs and activities for area youth.
- Enhance public recreation, use, and waterfront access at Miller Regional Park.
- Enhance the West Broadway corridor as a future gateway and bridge connection between the cities of Sacramento and West Sacramento.
- Leverage the planned improvements of the Broadway Complete Streets Plan to support economic growth and mixed-use development along West Broadway.
- Provide a gridded street network that improves the connection and access within the Specific Plan Area to surrounding uses and neighborhoods.
- Enhance bike and pedestrian travel ways through the Specific Plan Area to schools, public facilities, and neighborhood amenities.
- Support and promote local businesses in the Specific Plan Area.

Characteristics of the Project

The WBSP focuses on reintegrating the western portion of Broadway and the Upper Land Park area into the fabric and activity of the City. Currently, development along Broadway is seeing a resurgence of activity, and the area is a key focus of recent plans and development that will alter the character and identity of the Specific Plan Area. These existing plans include:

- The Mill at Broadway development within the Specific Plan Area, which is changing the industrial character of this area into a modern, urban residential community, with over 1,000 new urban homes, a new neighborhood park, multi-use trails, and new neighborhood amenities.
- Plans for the Broadway Bridge, which will connect the Stone Locks/Pioneer Bluff area of West Sacramento to Sacramento via the Broadway corridor.

- The Complete Streets Plan for Broadway, being led by the City, will revise the configuration of Broadway within the Specific Plan Area from two lanes in each direction to one lane in each direction and a center turn lane. This will reduce traffic speed and support a main-street environment that will attract walkable retail activity and supporting land uses along Broadway.

The Specific Plan Area also encompasses Miller Regional Park and the Sacramento Marina, a large but underutilized park and open space amenity, with access and views to the Sacramento River. The programs and activities at Miller Regional Park and the Sacramento Marina have the potential to be reimagined to become a more valuable amenity to the surrounding community. For this reason, the plan includes two scenarios: Scenario A, which involves the redevelopment and reconfiguration of Miller Regional Park and the Sacramento Marina to provide additional active recreation and special event space; and Scenario B, which involves the retention of both Miller Regional Park and the Sacramento Marina in their current configuration. Both scenarios are evaluated in this EIR, with Scenario A identified as part of the proposed project, consistent with CEQA requirements and due in part to the level of development that would occur under Scenario B. Scenario B is presented as an option for consideration by the City and is fully evaluated herein. Refer to the description of the “Marina Miller Regional Park Special Study Area” discussion below for further clarification.

The proposed WBSP under Scenario A for the Marina/Miller Regional Park anticipates construction and operation of new development (new buildings and new uses) combined with intensification of existing buildings and occupancy of currently vacant parcels or buildings. While actual future development patterns may vary from these plan assumptions, implementation of the WBSP could result in the development of up to 3,787 new residences, a net new 16.8 acres of parks and recreation space, and up to 42,500 sq. ft. of new recreation-related building space, including a broader range of recreational options within the Miller Regional Park and the Sacramento Marina, as noted above. However, under Scenario A, up to 175 boat slips could be removed, and the marina would be reconfigured. Commercial/industrial building space in the park and marina is anticipated to decrease under the WBSP by approximately 10,775 square feet. With implementation of the Scenario B option, the anticipated increase in residential uses would remain at 3,787 residential uses. However, an additional decrease of approximately 40,000 sq. ft. of commercial/industrial space could occur and the net increase in recreation-related building space would be limited to approximately 27,500 sq. ft. as a result of retaining the Sacramento Marina in its current configuration and providing a more limited growth area for recreational activity within Miller Regional Park.

ENVIRONMENTAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

Project-Specific Impacts

This EIR has been prepared pursuant to CEQA (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 1500, et seq.) to evaluate the physical environmental effects of the WBSP. The City is the lead agency for the WBSP and has the principal responsibility for approving and implementing the WBSP and for ensuring that the requirements of CEQA have been met. After the Final EIR is prepared and the EIR public-review process is complete, the City Council is the party responsible for certifying that the EIR adequately evaluates the impacts of the project.

Table ES-1, presented at the end of this chapter, provides a summary of the environmental impacts for the WBSP. The table provides the level of significance of the impact before mitigation, recommended mitigation measures, and the level of significance of the impact after implementation of the mitigation measures.

Significant-and-Unavoidable Impacts and Cumulative Impacts

For the following environmental issue areas, one or more impacts are considered significant and unavoidable; that is, no feasible mitigation is available to reduce the project's impacts or the project's contribution to cumulative impacts to a less-than-significant level.

- Impact 4.2-2: Result in Long-Term Operational Emissions of NO_X, ROG, PM_{10}, and $PM_{2.5}$
- Impact 4.2-6: Potential for Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Air Quality
- Impact 4.4-1: Impacts to Significant Historical Resources
- Impact 4.4-5: Potential for the Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Cultural Resources
- Impact 4.10-1: Operational Noise
- Impact 4.10-2: Construction Noise and Vibration
- Impact 4.6-5: Potential for implementation of the WBSP, in combination with other development, to contribute to a significant cumulative impact to noise
- Impact 4.12-1: Impacts to Vehicle Miles Traveled
- Impact 4.12-6: Impacts to Transit

ALTERNATIVES TO THE PROPOSED PROJECT

The following provides brief descriptions of the alternatives evaluated in this Draft EIR. Table ES-2 presents a comparison of the environmental impacts between the alternatives and the proposed project.

- **Alternative 1: No Project–Existing General Plan Alternative** assumes that the WBSP plan area would be subject to infill and redevelopment consistent with the land use designations and allowable uses identified in the existing 2035 General Plan.
- **Alternative 2: Historic Preservation Alternative** assumes that historic structures within the WBSP plan area would be preserved and retained, with some modernization. As part of this alternative and consistent with the goal of historic preservation, planned roadway network improvements within Alder Grove and Marina Vista, including the realignment of Muir Way, would not occur.
- **Alternative 3: Lesser Density Development Alternative** assumes that the entire WBSP plan area with the exception of Miller Regional Park and the existing school properties would develop in a manner consistent with the current densities (e.g., residential units per acre) of the Mill at Broadway. In other words, approximately 30 units per acre of residential units and 1,000 sf per acre of retail commercial would be anticipated under this alternative, which would result in a potential net change of approximately 2,700 new residential units and a decrease in commercial/industrial building area of 313,000 sf.

Environmentally Superior Alternative

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. Section 15126.6 (e)(2) of the State CEQA Guidelines requires that an environmentally superior alternative be designated and states that if the environmentally superior alternative is the No Project alternative, the EIR also is required to identify an environmentally superior alternative among the other alternatives.

Either the WBSP with the Scenario B option or Alternative 3 would be considered the environmentally superior action alternative because the majority of environmental impacts would be similar to the WBSP, neither alternative would result in an increase in the severity of any impacts. For example, the potential impacts to sensitive species and habitat would be avoided without the planned improvements to the Marina/Miller Regional Park Special Study Area under the WBSP with the Scenario B option; whereas Alternative 3 would generally reduce impacts due to the lesser level of development intensity that would occur within the Specific Plan Area. However, neither alternative would achieve the project objectives to the extent of the proposed WBSP.

With respect to the other alternatives, each alternative, presented above and summarized in Table 5-1, would reduce many significant impacts, including some significant and unavoidable impacts, associated with the WBSP, but would also increase the significance of certain impacts, as well. For example, both Alternatives 1 and 2 would result in lesser development of the Specific Plan Area, which would reduce overall emissions (criteria air pollutants and GHG) associated with the development. However, they would not include the proposed circulation improvements, including the realignment of Muir Way, which could result in greater circulation impacts within the Specific Plan Area and surrounding areas.

While each of the alternatives presented above, would achieve most of the basic project objectives, they would not achieve many of the objectives to the extent of the WBSP, including the provision of a variety of housing choices, enhancing the West Broadway corridor as a gateway to the City, and improving the street grid connections within the Specific Plan Area. Therefore, when considering objectives, the WBSP would best meet the purpose and need for the plan.

AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

In accordance with PRC Section 21092 and CCR Section 15082, a notice of preparation (NOP) was prepared and circulated on July 12, 2018, for a minimum 30-day period of public and agency comment. The NOP (included as Appendix A) was submitted to the State Clearinghouse and Sacramento County Clerk-Recorder. A public scoping meeting was conducted by the City on July 25, 2018. Appendix B contains the comment letters submitted in response to the NOP.

Based on the comments received during the NOP comment periods, the major areas of controversy associated with the project are:

- concerns regarding potential impacts to historic resources (potential and designated) within the Specific Plan Area,
- potential impacts to utility infrastructure within the Specific Plan Area,
- concerns related to the further densification and location of additional public housing within the Specific Plan Area, and
- increased vehicle traffic.

All of the substantive environmental issues raised in the NOP comment letters and at the scoping meeting have been addressed or otherwise considered during preparation of this DEIR.

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
4.1 Aesthetics, Light, and Glare			
Impact 4.1-1: Potential to Substantially Degrade the Existing Visual Character or Quality of Public Views of the Specific Plan Area and Its Surroundings Implementation of the WBSP would result in the redevelopment of uses within the Specific Plan Area, which would modify public views and change the existing visual character of the Specific Plan Area. More specifically, changes in visual character within Miller Regional Park could have an adverse effect on the unique views of the Sacramento River. Additionally, redevelopment of the Alder Grove and Marina Vista residential areas could have an adverse effect on the visual character and visual qualities of those areas due to removal of existing dense tree canopy and loss of open space adjacent to residential units. Therefore, the WBSP would have a potentially significant impact with respect to visual character and quality.	LTS	No mitigation is required for this impact.	LTS
Impact 4.1-2: Conflict with Applicable Zoning and Other Regulations Governing Scenic Quality In an Urbanized Area Implementation of the WBSP would result in the construction and operation of additional facilities within the Specific Plan Area and could result in alteration of views, primarily due to potential development of high-rise residential structures within the West Broadway Gateway subarea. However, new construction would be consistent with local zoning and land use regulations and would be located adjacent to similar existing development. Further, long-distance views within the Specific Plan Area have been largely altered by previous development. Future development under the WBSP would therefore result in less-than-significant impacts related to scenic quality.	LTS	No mitigation is required for this impact.	LTS
Impact 4.1-3: Potential to Create a New Source of Substantial Light or Glare Which Would Adversely Affect Day or Nighttime Views In the Area The project would increase nighttime lighting within the project area as a result of new light sources attributed to proposed residential and mixed-use development. The proposed project would be subject to the City's 2035 General Plan policies that address lighting and glare; In addition, lighting, including adverse effects of glare and light trespass or spillover light are considerations addressed by the City through the site plan and design review process. All future development in the Specific Plan Area would be subject to his review process, ensuring that the effects of glare and spillover light would be addressed. Impacts related light and glare as a result of implementation of the WBSP be less than significant.	LTS	No mitigation is required for this impact.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Impact 4.1-4: Potential for the Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact Related to Aesthetics Implementation of the WBSP, in combination with future development along the River in Sacramento and West Sacramento would alter aesthetic conditions in the area. Development under the WBSP would be designed in accordance with applicable standards and regulations related to scenic quality, light, and glare, and would be complimentary to existing uses within the Specific Plan Area. As a result, the WBSP's would not cumulatively contribute to an adverse visual impact. Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
4.2 Air Quality			
Impact 4.2-1: Result in Short-Term Construction Emissions of NO_X, PM_{10} and $PM_{2.5}$ Construction activity associated with proposed land use development would result in emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ which would exceed SMAQMD's construction emissions thresholds for these pollutants. This impact would be significant.	S	**Mitigation Measure 4.2-1a: Implement SMAQMD's Basic Construction Emission Control Practices** For all future land use development applications processed within the Specific Plan Area, each project applicant or its designee shall require its construction contractors to implement SMAQMD's Basic Construction Emission Control Practices including the following: ◢ water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads; ◢ cover or maintain at least two feet or free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered; ◢ use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited; ◢ limit vehicle speeds on unpaved roads to 15 miles per hour (mph); ◢ complete construction of all roadways, driveways, sidewalks, parking lots as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used; ◢ minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site; and	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
		◢ maintain all construction equipment is in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated. These measures shall be included as conditions of approval. **Mitigation Measure 4.2-1b: Reduce Construction-Related Exhaust and Dust Emissions** For all future land use development applications processed within the Specific Plan Area, before the issuance of grading and/or building permits, each project applicant or its designee shall submit to the City and SMAQMD an initial report of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used 8 hours or more during any portion of the construction project before any grading activities. The initial report shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment. The project applicant shall provide the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. The information shall be submitted at least 4 business days before the use of subject heavy-duty off-road equipment. The report shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. Before any grading activities, the project applicant or its designee shall provide a plan for approval by the County and SMAQMD demonstrating that the heavy-duty off-road vehicles (50 horsepower or more) to be used during construction, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet-average of 10 percent NO_X reduction (depending on available technology and engine Tier) compared to the most recent CARB fleet average. This plan shall be submitted in conjunction with the equipment inventory. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. If achievement of the aforementioned reductions over the statewide average are deemed infeasible by the City, SMAQMD, or construction contractor, the Applicant shall ensure the construction fleet meets the lowest fleetwide emissions average possible, through the use of all available on-site emissions reduction measures (e.g., highest tier engines, emission control devices, cleaner burning fuel).	

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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		The project applicant or its designee shall submit a final report at the end of the job, phase, or calendar year, as pre-arranged with SMAQMD staff and documented in the approval letter, to demonstrate continued project compliance. If modeled construction-generated emissions of NO_X are not reduced to a level below SMAQMD's thresholds of significance by the application of the aforementioned mitigation measures, then the project developer must pay a mitigation fee into SMAQMD's off-site mitigation program. By paying the appropriate off-site mitigation fee, construction-generated emissions of NO_X would be reduced to a less-than-significant level. The fee calculation to offset daily NO_X emissions shall be based on the SMAQMD-determined cost to reduce one ton of NO_X applicable at the time (currently $30,000 per ton but subject to change in future years). Once initial construction activities are finalized by a project applicant and before the issuance of grading and/or building permits, quantification of construction-related emissions shall be verified at the project level. As each project-level construction phase is finalized throughout the duration of the project buildout, the mitigation fee shall be calculated based on current information, available construction equipment, and proposed construction activities. As construction activities occur over the buildout period, the developer shall work with SMAQMD to continually update mitigation fees based on actual on-the-ground emissions. The final mitigation fees shall be based on the contractor equipment report provided by the developer to SMAQMD and shall reconcile any fee discrepancies due to schedule adjustments, and increased or decreased equipment inventories. Equipment inventories and NO_X emission estimates for subsequent construction phases shall be coordinated with SMAQMD, and the off-site mitigation fee measure shall be assessed to any construction phase that would result in an exceedance of SMAQMD's mass emission threshold for NO_X.	
Impact 4.2-2: Result in Long-Term Operational Emissions of NO_X, ROG, PM_{10}, and $PM_{2.5}$ Implementation of the WBSP could result in operational emissions associated with the operation of new land uses within the Specific Plan Area. These activities would result in emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ that would exceed applicable thresholds established by SMAQMD. However, the WBSP does include policies that would help reduce emissions of air pollutants. Nonetheless, emissions associated with the operation of new uses under the WBSP would exceed SMAQMD's air pollutant thresholds, and therefore, would violate an existing air quality standard. This impact would be significant.	S	SMAQMD requires land use projects exceeding operational emissions thresholds to follow the Recommended Guidance for Land Use Emission Reductions and develop and implement an Air Quality Mitigation Plan (AQMP) to reduce operational emissions. Additionally, each development proposed as part of WBSP implementation would be required to comply with the policies of the 2035 General Plan. Policy ER 6.1.3 requires individual development projects that would exceed the SMAQMD ROG and NOX operational thresholds of 65 lb/day to incorporate design or operational features that result in at least a 15 percent reduction in emissions; and Policy ER 6.1.2 requires City review of proposed development projects to ensure construction and operation of	SU

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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		projects incorporate feasible measures that reduce emissions through project design (e.g., measures contained in SMAQMD's Recommended Guidance for Land Use Emission Reductions [SMAQMD 2016a]) Both of these policies are essentially in line with what is required from SMAQMD for the development of an AQMP. Mitigation Measure 4.2-1 below includes details about the AQMP and the mitigation measures required to implemented as part of this EIR that are included in the AQMP. **Mitigation Measure 4.2-2: Implement Provisions of the Air Quality Mitigation Plan to Reduce Operational Emissions** Project applicants for individual projects within the Specific Plan Area shall comply with the recommended measures of the WBSP's AQMP, which would reduce the project's operational ozone precursors from mobile sources by 15 percent in comparison to the unmitigated project. Section 7.1 of the AQMP includes specific language about how this mitigation measure will be implemented and requirements for compliance with the measure.	
Impact 4.2-3: Generation of Local Mobile-Source CO Emissions Long-term operational mobile-source emissions of CO generated by vehicle trips associated with implementation of the WBSP would not violate or contribute substantially to localized concentrations of CO that exceed the CAAQS or NAAQS for CO. The traffic volume increases under the WBSP would not result in affected intersections experiencing more than 31,600 vehicles per hour and, therefore, would not exceed CO hotspot concentration thresholds. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.2-4: Short-Term and Long-Term Exposure to Toxic Air Contaminants Neither the short-term construction nor the long-term operation of land uses anticipated under the WBSP would result in the exposure of sensitive receptors to excessive toxic air contaminant (TAC) emissions that exceed SMAQMD's significance threshold. Therefore, impacts related to exposure of sensitive receptors to TACs would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.2-5: Creation of Objectionable Odors Affecting a Substantial Number of People Neither the short-term construction nor the long-term operation of new land uses associated with implementation of the WBSP would result in the exposure of sensitive receptors to excessive odors. This impact would be considered less than significant.	LTS	No mitigation is required for this impact.	LTS

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Impact 4.2-6: Potential for Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Air Quality Implementation of the WBSP, in combination with other cumulative development in the area, would involve an intensification of development and redevelopment activities within and in the vicinity of the Specific Plan Area, which could contribute to cumulatively air quality impacts in the area. As implementation of the WBSP, as a whole, would result in operational emissions that exceed SMAQMD thresholds, development under the WBSP would therefore be cumulatively considerable. Impacts would be significant.	S	No additional feasible mitigation is available to reduce the project's contribution to less than cumulatively considerable.	SU
4.3 Biological Resources			
Impact 4.3-1: Loss or Disturbance to Special-Status Plant Species and Their Habitat Project construction activities, including ground disturbance, vegetation removal, and dredging, could result in disturbance to or loss of special-status plants if present on the Specific Plan Area. Because the loss of special-status plants could substantially affect the abundance, distribution, and viability of local and regional populations of these species, this would be a potentially significant impact.	PS	**Mitigation Measure 4.3-1: Special-Status Plant Surveys, Protection, and Mitigation** Before construction activities, including ground disturbance or dredging, within the project site, the project applicant shall impose the following conditions: ◢ Before construction and during the blooming period for the special-status plant species with potential to occur in the project site, a qualified botanist shall conduct protocol-level surveys for special-status plants in areas where potentially suitable habitat would be removed or disturbed by project activities. The blooming period for woolly rose-mallow is approximately June to September and for Mason's lilaeopsis is approximately April to November. The blooming period for Sanford's arrowhead is approximately May to November. Therefore, the optimal survey period for all three species is June to September. ◢ If special-status plant species are not found, the botanist shall document the findings in a letter report to CDFW and the project applicant and no further mitigation shall be required. ◢ If woolly rose-mallow, Mason's lilaeopsis, Sanford's arrowhead, or other special-status plant species are found on the project site and are located outside of the permanent footprint of any proposed structures/site features and can be avoided, the project applicant shall establish and maintain a buffer around special-status plants to be retained to prevent disturbance to the plants. ◢ If special-status plant species are found that cannot be avoided during construction, the applicant shall consult with CDFW to determine the appropriate mitigation measures for direct and indirect impacts that could occur because of project construction and shall implement the agreed-upon mitigation measures to achieve no net loss of occupied habitat or individuals. Mitigation measures may include preserving and enhancing existing populations, creation of	LTS

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		offsite populations on mitigation sites through seed collection or transplantation, and/or restoring or creating suitable habitat in sufficient quantities to achieve no net loss of occupied habitat and/or individuals. A mitigation and monitoring plan shall be developed describing how unavoidable losses of special-status plants shall be compensated. ◢ If relocation efforts are part of the mitigation plan, the plan shall include details on the methods to be used, including collection, storage, propagation, receptor site preparation, installation, long-term protection and management, monitoring and reporting requirements, success criteria, and remedial action responsibilities should the initial effort fail to meet long-term monitoring requirements. ◢ Success criteria for preserved and compensatory populations shall include: ◤ The extent of occupied area and plant density (number of plants per unit area) in compensatory populations shall be equal to or greater than the affected occupied habitat. ◤ Compensatory and preserved populations shall be self-producing. Populations shall be considered self-producing when: – plants reestablish annually for a minimum of 5 years with no human intervention such as supplemental seeding; and – 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. ◤ If offsite mitigation includes dedication of conservation easements, purchase of mitigation credits, or other offsite conservation measures, the details of these measures shall 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.	
Impact 4.3-2: Loss or Disturbance to Special-Status Fish Species and Degradation or Loss of Designated Critical Habitat Implementation of the WBSP could include construction of a potential future bike and pedestrian bridge connecting Sacramento and West Sacramento and/or construction of a new bike and pedestrian bridge to connect the current south end of the peninsula to the boat ramp area for Miller Regional Park. Construction-related impacts, including noise, vibration, artificial lighting, water quality effects, introduction or spread of aquatic invasive species, entrapment and mortality of fish, and loss of habitat, including loss of	PS	**Mitigation Measure 4.3-2a: Conduct a Hydroacoustic Effects Analysis** Upon further design and planning of any proposed bridge crossings that shall involve in-water work, the City shall conduct a project-specific noise and vibration evaluation of construction activities on fish following the Caltrans "Technical Guidance for Assessment and Mitigation of Hydroacoustic Effects of Pile Driving on Fish" (Caltrans 2009) and the NMFS Pile Driving Calculations spreadsheet (NMFS 2012). Impacts associated with pile driving and other noise and vibration generating construction activities shall be avoided and minimized through development and implementation of	LTS

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shaded riverine aquatic habitat and increased artificial shade, could adversely affect fish species. This would be a potentially significant impact.		additional measures (e.g. use of bubble curtains, minimizing the number of piles driven in a day, using the smallest pile driver and minimum force necessary, etc.) intended to achieve the project-specific performance standard established as part of the hydroacoustic analysis. **Mitigation Measure 4.3-2b: Conduct in-Water Construction Activities Between June 1 and October 1 and Only During Daylight Hours** Conduct all in-water construction work and noise and vibration generating activities (i.e. pile driving) between June 1 and October 1. This work window will minimize exposure to fall-run Chinook salmon of potential contaminants because they are less likely to be present in the Sacramento River during this time of year. In-water work shall be conducted during daylight hours only. Mitigation 4.3-2c: Develop and Implement a Hydroacoustic Monitoring Plan The project applicant shall develop and implement a hydroacoustic monitoring plan for any development activities involving pile driving in or proximate to (i.e., within 50 feet of) the Sacramento River or marina. The monitoring plan shall be submitted to the resource agencies (NMFS, USFWS, and CDFW) for approval at least 60 days before the start of project activities. The plan shall include the following requirements: ◢ The project applicant and/or its construction contractor shall monitor underwater noise levels during all impact pile driving activities on land and in water to ensure that peak and cumulative SELs do not exceed estimated values, based on the hydroacoustic analysis. ◢ The monitoring plan shall describe the methods and equipment that shall be used to document the extent of underwater sounds produced by pile driving, including the number, location, distances, and depths of the hydrophones and associated monitoring equipment. ◢ The monitoring plan shall include a reporting schedule for daily summaries of the hydroacoustic monitoring results and for more comprehensive reports to be provided to the resource agencies on a monthly basis during the pile driving season. ◢ The daily reports shall include the number of piles installed per day; the number of strikes per pile; the interval between strikes; the peak sound pressure level (SPL), SEL, and decibels root mean square (dB RMS) per strike; and the accumulated SEL per day at each monitoring station. ◢ The project applicant or its contractors shall ensure that a qualified fish biologist is on site during impact pile driving to document any occurrences of stressed, injured, or dead fish. If stressed, injured, or dead fish are observed during pile driving, the project applicant and/or its	

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		construction contractor shall reduce the number of strikes per day to ensure that fish are no longer showing signs of stress, injury, or mortality. **Mitigation Measure 4.3-2d: Avoid or Minimize Temporary Construction Lighting and Permanent Bridge Lighting from Directing Radiating on Water Surfaces of the Sacramento River** The project applicant shall implement the following measures to minimize temporary construction lighting: ◢ Avoiding construction activities at night. ◢ Use the minimal amount of lighting necessary to safely and effectively illuminate the work areas. ◢ Shield and focus lights on work areas and away from the water surface of the Sacramento River. The project applicant shall also implement the following measures to minimize permanent bridge lighting: ◢ Minimizing nighttime lighting of the bridge structure for aesthetic purposes. ◢ Use the minimal amount of lighting necessary to safely and effectively illuminate bicycle and pedestrian areas on the bridge. ◢ Shield and focus lights on bicycle and pedestrian areas away from the water surface of the Sacramento River. **Mitigation Measure 4.3-2e: Monitor Turbidity in the Sacramento River** The project applicant or construction contractor shall monitor turbidity levels in the Sacramento River during in-water construction activities. Turbidity shall be measured using standard techniques upstream and downstream of the construction area to determine whether changes in ambient turbidity levels exceed limits established in the Basin Plan for the Sacramento and San Joaquin Rivers (CVRWQCB 2018). If it is determined that turbidity levels exceed the allowed limits, then the project applicant and/or its contractors shall adjust work to ensure that turbidity levels do not exceed the allowed limits. **Mitigation Measure 4.3-2f: Compensate for Impacts on Critical Habitat** If permanent impacts on critical habitat, such as loss of shaded riverine aquatic habitat, permanent shading of aquatic habitat, etc. occur, the project applicant shall	

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		mitigate the impacts on a "no effective net loss" of habitat basis through purchase of mitigation credits at a NMFS-approved anadromous fish conservation bank. **Mitigation Measure 4.3-2g: Implement Cofferdam Restrictions** If cofferdams are used during the construction of the bridge(s), the following restrictions shall be implemented: ◢ The extent of cofferdam footprints shall be limited to the minimum necessary to support construction activities. ◢ Sheet piles used for cofferdams shall be installed and removed using a vibratory pile driver. ◢ Cofferdams shall be installed and removed only during the in-water work window (between June 1 and October 1). ◢ Cofferdams shall not be left in place over winter where they could be overtopped by winter/spring flows and when juveniles of listed species are most likely to be present in the construction area. ◢ All pumps used during dewatering of cofferdams shall be screened according to CDFW and NMFS guidelines for screens. ◢ Cofferdam dewatering and fish rescue/relocation from within cofferdams shall commence immediately following cofferdam closure. **Mitigation Measure 4.3-2h: Prepare and Implement a Fish Rescue and Relocation Plan** A qualified fish biologist shall develop and implement a fish rescue and relocation plan to recover any fish trapped in cofferdams. The fish rescue and relocation plan shall be submitted to the resource agencies (CDFW, NMFS, and USFWS) and the project applicant for approval at least 60 days before initiating activities to install cofferdams. At a minimum, the plan shall include the following: ◢ A requirement that fish rescue and relocation activities shall commence immediately after cofferdam closure and that dewatering has sufficiently lowered water levels inside cofferdams to make it feasible to rescue fish. ◢ A description of the methods and equipment proposed to collect, transfer, and release all fish trapped within cofferdams. Capture methods may include seining, dip netting, and/or electrofishing as approved by CDFW, NMFS, and USFWS. The precise methods and equipment to be used shall be developed in consultation with CDFW, NMFS, USFWS.	

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		◢ A requirement that only CDFW-, NMFS-, and USFWS-approved fish biologists shall conduct the fish rescue and relocation. ◢ A requirement that fish biologists shall contact CDFW, NMFS, and USFWS immediately if any listed species are found dead or injured. ◢ A requirement that a fish rescue and relocation report be prepared and submitted to CDFW, NMFS, and USFWS within 5 business days following completion of the fish relocation. Data shall be provided in tabular form and at a minimum shall include the species and number rescued and relocated, approximate size of each fish (or alternatively, approximate size range if large number of individuals are encountered), date and time of their capture, and general condition of all live fish (e.g., good–active with no injuries; fair–reduced activity with some superficial injuries; poor–difficulty swimming/orienting with major injuries). For dead fish, additional data shall include fork length and description of injuries and/or possible cause of mortality if it can be determined. **Mitigation Measure 4.3-2i: Prevent the Spread or Introduction of Aquatic Invasive Species** The project applicant shall implement the following measures to minimize the spread or introduction of aquatic invasive species associated with in-water construction activities in the Sacramento River: ◢ Coordinate with the CDFW's Invasive Species Program to ensure that the appropriate BMPs are implemented to prevent the spread or introduction of aquatic invasive species. ◢ Educate construction supervisors and managers about the importance of controlling and preventing the spread of aquatic invasive species. ◢ Train vessel and equipment operators and maintenance personnel in the recognition and proper prevention, treatment, and disposal of aquatic invasive species. ◢ Before departure of vessels from their place of origin and before in-water construction equipment is allowed to operate within the Sacramento River, thoroughly inspect and remove and dispose of all dirt, mud, plant matter, and animals from all surfaces that are submerged or may become submerged, or places where water can be held and transferred to the surrounding water.	
Impact 4.3-3: Loss of Western Pond Turtle and Its Habitat Project implementation could include construction of a potential future bike and pedestrian bridge connecting Sacramento and West Sacramento and/or construction of a new bike and pedestrian bridge to connect the current south end of the peninsula to	PS	**Mitigation Measure 4.3-3: Conduct a Pre-Construction Survey for Western Pond Turtle and Relocate Individuals Outside the Work Area** To avoid and minimize impacts on western pond turtles that could occur in or on the banks of the Sacramento River within the project site, the project applicant shall retain	LTS

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the boat ramp area for Miller Regional Park. This would require in-channel work that could result in injury, disturbance, or direct mortality of western pond turtle. Project construction could also result in loss of upland basking habitat for western pond turtle. This impact would be potentially significant.		a qualified wildlife biologist to conduct a preconstruction survey for western pond turtle in suitable habitat within the work area. If potential bridge construction activities do not require dewatering of aquatic habitat and the qualified biologist determines visual encounter surveys are not sufficient to determine presence of western pond turtle within aquatic habitat in the work area, the qualified biologist shall consult with CDFW to determine if additional avoidance measures (e.g., monitoring, trapping surveys) are necessary to minimize impacts on western pond turtle. If turtles are observed during a survey, they shall be either hand-captured or trapped and relocated outside the construction area to appropriate aquatic habitat by a qualified biologist. If western pond turtle is observed within the work area during construction activities, work shall cease in the area until the turtle is able to move out of the work area on its own or can be safely relocated by a biologist. **Mitigation Measure 4.3-3c: Implement Mitigation Measures 4.3-2a, 4.3-2b, 4.3-2c, and 4.3-2e** The project applicant shall implement Mitigation Measures 4.3-2a, 4.3-2b, 4.3-2c, and 4.3-2e, which require avoiding or minimizing hydroacoustic and water quality impacts.	
Impact 4.3-4: Loss or Disturbance of Nesting Swainson's Hawk, White-Tailed Kite, Loggerhead Shrike, Purple Martin, Song Sparrow ("Modesto" Population), and Other Protected Birds Implementation of the WBSP could result in loss and disturbance of suitable nesting habitat for Swainson's hawk, white-tailed kite, loggerhead shrike, purple martin, song sparrow ("Modesto" population), and more common birds and raptors protected under the California Fish and Game Code. Construction activity could disturb active nests on or near the construction area, potentially resulting in nest abandonment by the adults and mortality of chicks and eggs. This impact would be potentially significant.	PS	**Mitigation Measure 4.3-4: Avoid Direct Loss and Disturbance of Nesting Swainson's Hawk, White-Tailed Kite, Loggerhead Shrike, Purple Martin, Song Sparrow ("Modesto" Population), and Other Protected Birds** ◢ Conduct all tree and vegetation removal during the nonbreeding season (generally between September 1 and February 28) for special-status and non-special-status migratory birds, to the extent feasible. ◢ Before removal of any vegetation or any ground disturbance between February 1 and August 31, a qualified biologist shall conduct preconstruction surveys for nests within 0.25 mile of the project site for Swainson's hawks, 500 feet for other nesting raptors, and 100 feet for all other birds. The surveys shall be conducted no more than 30 days before construction commences. Surveys for Swainson's hawk shall be conducted in accordance with the Swainson's Hawk Technical Advisory Committee's methodology (May 31, 2000) or according to updated methodologies issued by CDFW. ◢ If no active nests are found during focused surveys, no further action under this measure shall be required. ◢ Impacts to nesting Swainson's hawks, other raptors, or other nesting birds shall be avoided by establishing appropriate buffers around active nest sites identified during preconstruction	LTS

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		raptor surveys. Project activity shall not commence within the buffer areas until a qualified biologist has determined that the young have fledged, the nest is no longer active, or reducing the buffer would not likely result in nest abandonment. CDFW guidelines recommend implementation of 0.25-mile-wide buffer for Swainson's hawk. For all other birds, a qualified biologist shall establish a non-disturbance buffer at a distance sufficient to minimize nest disturbance based on the nest location, topography, cover, the species' sensitivity to disturbance, and the intensity/type of potential disturbance. The size of the buffer may be adjusted if a qualified biologist and the project applicant determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities shall be required if the activity has potential to adversely affect the nest. If construction activities cause the nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the no-disturbance buffer shall be increased until the agitated behavior ceases. The exclusionary buffer shall remain in place until the chicks have fledged or as otherwise determined appropriate by a qualified biologist. ◢ If a Swainson's hawk or other raptor nest tree (any tree that has an active nest in the year the impact is to occur) must be removed, the tree shall be removed between September 1 and February 28, when not occupied.	
Impact 4.3-5: Loss or Disturbance of Valley Elderberry Longhorn Beetles and Their Habitat Elderberry shrubs within riparian habitat provide suitable habitat for valley elderberry longhorn beetle. Removal of elderberry shrubs within the project site could result in loss of valley elderberry longhorn beetle and their habitat. This would be a potentially significant impact.	PS	**Mitigation Measure 4.3-5: Avoid Loss or Disturbance of Valley Elderberry Longhorn Beetle and Their Habitat** ◢ Before project construction activities, a qualified biologist shall conduct surveys for valley elderberry longhorn beetle according to the protocol outlined in USFWS *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle* (USFWS 2017). The biologist shall determine if there are elderberry shrubs within 250 feet of the project site. If no elderberry shrubs are located within 165 feet of the site, then no further action is required. Take of valley elderberry longhorn beetle shall be avoided by following the Conservation Measures outlined in the USFWS 2017 Framework for cases where elderberry shrubs can be retained and protected within 165 feet of the project footprint. ◢ If elderberry shrubs are 165 feet or more from project activities, direct or indirect impacts are not expected. Shrubs shall be protected during construction by establishing and maintaining a high visibility fence at least 165 feet from the drip line of each elderberry shrub. ◢ If elderberry shrubs can be retained within the project footprint, project activities may occur up to 20 feet from the dripline of elderberry shrubs if precautions are implemented to minimize the potential for indirect impacts. Specifically, these minimization measures include:	LTS

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		◤ All areas to be avoided during construction activities shall be fenced or flagged as close to construction limits as possible. ◤ A minimum avoidance area of at least 20 feet from the dripline of each elderberry plant shall be maintained to avoid direct impacts that could damage or kill the plant. ◤ A qualified biologist shall provide training for all contractors, work crews, and any onsite personnel on the status of valley elderberry longhorn beetle, its host plant and habitat, the need to avoid damaging the elderberry shrubs, and the possible penalties for non-compliance. ◤ A qualified biologist shall monitor the work area at project-appropriate intervals to assure that all avoidance and minimization measures are implemented. The amount and duration of monitoring shall depend on the project specifics and shall be discussed with a USFWS biologist. ◤ As much as feasible, all activities that could occur within 165 feet of an elderberry shrub shall be conducted outside of the flight season of the valley elderberry longhorn beetle (March – July). ◤ Trimming of elderberry shrubs shall occur between November and February and shall avoid removal of any branches or stems that are greater than or equal to 1 inch in diameter to avoid and minimize adverse effects to valley elderberry longhorn beetle. ◤ Project activities, such as truck traffic or other use of machinery, shall not create excessive dust on the project site, such that the growth or vigor of elderberry shrubs is adversely affected. Enforcement of a speed-limit and watering dirt roadways are potential methods to minimize excessive dust creation. ◤ Herbicides shall not be used within the drip-line of any elderberry shrub. Insecticides shall not be used within 98 feet of any elderberry shrub. All chemicals shall be applied using a backpack sprayer or similar direct application method. Mechanical weed removal within the drip-line of any elderberry shrub shall be limited to the season when adults are not active (August – February) and shall avoid damaging the elderberry. ◤ Erosion control shall be implemented, and the affected area shall be re-vegetated with appropriate native plants. ◢ If elderberry shrubs cannot be avoided, compliance with the ESA and consultation with USFWS is required and may involve acquiring an incidental take permit through Section 10, or a take exemption through Section 7. All elderberry shrubs with stems greater than 1 inch in diameter that cannot be avoided shall be transplanted.	

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		◢ No elderberry shrub shall be removed or transplanted until authorization has been issued by USFWS and the project applicant has abided by all pertinent conditions of the incidental take permit or biological opinion. Conservation and minimization measures are likely to include preparation of supporting documentation that describes methods for relocation of existing shrubs and maintaining existing shrubs and other vegetation in a conservation area. ◢ Relocation of existing elderberry shrubs and planting of new elderberry seedlings and associated riparian species shall be implemented according to the Framework (USFWS 2017). The Framework uses presence or absence of exit holes, and whether the affected elderberry shrubs are located in riparian habitat to determine the number of elderberry seedlings or cuttings and associated riparian vegetation that would need to be planted as compensatory mitigation for affected valley elderberry longhorn beetle habitat. Compensatory mitigation may include purchasing credits at a USFWS-approved conservation bank, providing on-site mitigation, or establishing and protecting habitat for valley elderberry longhorn beetle.	
Impact 4.3-6: Loss or Disturbance to Special-Status Bats, Bat Colonies, and their Habitat. Project construction activities, including tree removal, could result in disturbance to or loss of special-status and common bats colonies if present on the project site. Because the loss of special-status and common bat colonies could substantially affect the abundance, distribution, and viability of local and regional populations of these species, this would be a potentially significant impact.	PS	**Mitigation Measure 4.3-6: Avoid Loss or Disturbance of Special-Status Bat Species, Bat Colonies, and Their Habitat** ◢ If the project would result in removal of trees or the removal or alteration of vacant or seldom-used buildings or structures, or construction activities would occur within 100 feet of potentially suitable roost habitat, a qualified bat biologist shall conduct a survey of the potentially suitable roost habitat. If no evidence of bat roosts is found, then no further study and no further mitigation shall be required. ◢ If evidence of bat use (e.g., guano, culled insect parts, staining) is observed, additional surveys shall be conducted by the bat biologist during each season (i.e. maternity, torpor/hibernation, and shoulder seasons) when bats may be affected by project activities to determine if bats are using the habitat for roosting during that specific season. If project activities shall result in permanent loss of roost habitat that was observed to contain evidence of bat use during the habitat suitability survey studies should be conducted during each season to determine if potential roosts are present seasonally or year-round. The species and number of bats using the roost shall be determined to the extent necessary to determine if loss of roost habitat would be a significant impact on the bat population and to develop an appropriate mitigation program. Bat detectors and/or emergence surveys may be used to supplement survey efforts. ◢ If bat roosts are found, a qualified bat biologist, in consultation with CDFW, shall develop a mitigation program to minimize impacts to the bat roost. The mitigation program may include: ◤ additional protective measures;	LTS

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		◤ avoidance buffers during periods of sensitive activity (e.g., during hibernation or maternity season); ◤ an exclusion plan; and ◤ a compensatory mitigation plan to provide alternative roost habitat. The plan shall require bat replacement habitat and monitoring of the replacement habitat over a 5-year period for a minimum of 3 years (e.g., years 2, 3, and 5) to determine whether bats are using the habitat, determine whether the habitat is functioning as intended, and identify any corrective actions that need to be made to the habitat to improve its use by bats.	
Impact 4.3-7: Disturbance to California Sea Lion WBSP implementation could include construction of a potential future bike and pedestrian bridge connecting Sacramento and West Sacramento and/or construction of a new bike and pedestrian bridge to connect the current south end of the peninsula to the boat ramp area for Miller Regional Park and could result in acoustic impacts on California sea lion. This would be a potentially significant impact.	PS	**Mitigation Measure 4.3-7: Avoid or Minimize Hydroacoustic Impacts to California Sea Lion** ◢ Conduct an acoustic effects analysis on California sea lion following the NMFS "Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0): Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold Shifts" (NMFS 2018) and completing the "Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing: Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold Shifts" spreadsheet (NMFS 2016). ◢ if the hydroacoustic analysis determines there shall be adverse acoustic effects on California sea lion as a result of pile driving and other noise generating construction activities, additional measures (e.g., minimizing the number of piles driven in a day, using the smallest pile driver and minimum force necessary). shall be developed by a qualified biologist in consultation with NMFS to avoid and minimize acoustic impacts on California sea lion.	LTS
Impact 4.3-8: Impacts on State and Federally Protected Wetlands and Waters of the United States and Riparian Habitat WBSP implementation could include construction of a potential future bike and pedestrian bridge connecting Sacramento and West Sacramento and/or construction of a new bike and pedestrian bridge to connect the current south end of the peninsula to the boat ramp area for Miller Regional Park would result in discharge of dredge or fill material into the Sacramento River, a water of the United States and could result in removal of riparian vegetation. This would be a potentially significant impact.	PS	**Mitigation Measure 4.3-8a: Avoid Impacts to Sensitive Natural Communities** Before initiation of construction activities within the Marina/Miller Regional Park special study area, all sensitive areas, including riparian areas and sensitive natural communities, will be flagged or fenced with brightly visible construction flagging and/or fencing under the direction of the qualified biologist to ensure that grading, excavation, or other ground-disturbing activities will not occur within these areas. This delineation shall be consistent with and incorporate the USACE-approved preliminary jurisdictional determination or verified jurisdictional determination. Foot traffic by construction personnel will also be limited in these areas to prevent the introduction of invasive or weedy species. Periodic inspections during construction will be conducted by the monitoring biologist to ensure the integrity of exclusion fencing/flagging is maintained throughout the period of construction involving ground disturbance.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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		Mitigation Measure 4.3-8b: Obtain all Required Regulatory Authorizations if Project Development Would Result in the Fill of Waters of the United States ◢ Before any grading or construction activities within waters of the United States, the individual project applicant shall obtain Section 404 permit(s) for any project-related impacts, as appropriate. Any waters of the United States that would be affected by project development shall be replaced or restored on a "no-net-loss" basis in accordance with USACE mitigation guidelines (or the applicable USACE guidelines in place at the time of construction). In association with the Section 404 permit (if applicable) and before the issuance of any grading permit, Section 401 Water Quality Certification from the CVRWQCB shall be obtained. ◢ If project development would result in a permanent loss of acreage of wetlands or waters of the United States or riparian habitat, compensatory mitigation shall be provided in the form of payment to an in-lieu fee program. **Mitigation Measure 4.3-8c: Obtain All Required Regulatory Authorizations if Project Development Would Result in Impacts to Aquatic or Riparian Habitats within CDFW Jurisdiction** If it is determined that project development would affect the bed, bank, channel, or associated riparian habitat subject to CDFW jurisdiction under Fish and Game Code Section 1602, a Streambed Alteration Notification shall be submitted to CDFW, pursuant to Section 1600 et seq. of the California Fish and Game Code. If proposed activities are determined to be subject to CDFW jurisdiction, the project proponent shall abide by the conditions of any executed agreement before the issuance of a grading permit by Sacramento County.	
Impact 4.3-9: Interruption of Migratory Corridors and Potential for Impacts on Fish Migration Implementation of the proposed WBSP could include potential construction of a future bike and pedestrian bridge over the Sacramento River connecting Sacramento and West Sacramento. Construction of bridge would include in-water work producing noise and vibration that could adversely affect migratory fish in the Sacramento River. This would be a potentially significant impact.	PS	**Mitigation Measure 4.3-9: Implement Mitigation Measures 4.3-2 and 4.3-8** The project applicant shall implement Mitigation Measures 4.3-2, which requires avoiding or minimizing hydroacoustic, lighting, and water quality impacts, preventing the introduction and spread of aquatic invasive species, minimizing fish entrapment and mortality, and compensating for loss of habitat, and Mitigation Measure 4.3-8 which requires avoiding, minimizing, or compensating for loss of riparian habitat.	LTS
Impact 4.3-10: Consistency with the City of Sacramento Tree Preservation Ordinance; Loss of and Damage to Protected Trees Implementation of the WBSP could result in adverse effects to "city" or "private protected" trees as defined in the City of Sacramento Tree Preservation Ordinance (City	PS	**Mitigation Measure 4.3-10a: Obtain a Tree Permit for Removal of Protected Trees** ◢ As part of project design, the applicant shall retain a certified arborist to survey trees in the proposed project corridor, including potential contractor laydown areas, and identify and evaluate trees that shall be removed. The arborist shall also identify and evaluate protected	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

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of Sacramento 2019). Removal of or regulated work on a "city" or "private protected" trees would be a potentially significant impact.		trees that may require regulated work. If the arborist's survey does not identify any protected trees that would be removed or damaged or require regulated work as a result of the proposed project, no further mitigation is necessary. ◢ If the arborist identifies protected trees that would be removed or damaged or protected trees that would be retained but recommends pruning or protected trees that would require regulated work, the project applicant shall obtain a tree permit from the director of department of parks or the director's designee for city trees located in city parks, or the director of the department of public works or the director's designee for all other city trees. ◢ Abide by the conditions of the tree permit, including potential requirements to provide replacement of city trees or privately protected trees. **Mitigation Measure 4.3-10b: Minimize Construction Effects on Protected Trees to be Retained** ◢ Retain a certified arborist to oversee protection of protected trees to be retained on the project site. ◢ Any tree or root pruning required for construction shall first be approved by the certified arborist. ◢ Any injuries to retained trees shall be evaluated as soon as possible by the certified arborist for appropriate treatment.	
Impact 4.3-11: Potential for the Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Biological Resources Implementation of the WBSP, in combination with other cumulative development in the area, could result in impacts to sensitive biological resources in the area. However, through the implementation of plan-specific mitigation measures, the contribution of the WBSP would be less than cumulatively considerable. Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
4.4 Cultural Resources and Tribal Cultural Resources			
Impact 4.4-1: Impacts to Significant Historical Resources Implementation of the WBSP could result in new development and redevelopment of existing uses in the Specific Plan Area, which could result in a physical change, damage to, or destruction of a historic building or structure, thereby resulting in a substantial	PS	**Mitigation Measure 4.4-1: Conduct Project-Specific Level Surveys and Identify and Implement Measures to Protect Identified Historic Resources** Before altering or otherwise affecting a building or structure 50 years old or older, the applicant shall retain a qualified architectural historian to record it on a California Department of Parks and Recreation DPR 523 form or equivalent documentation, if the	SU

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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adverse change in the significance of a historical resource as defined in Section 15064.5. This would be a potentially significant impact.		building has not previously been evaluated. Its significance shall be assessed by a qualified architectural historian, using the significance criteria set forth for historical resources under CEQA Guidelines Section 15064.5. The evaluation process shall include the development of appropriate historical background research as context for the assessment of the significance of the structure in the City and the region. For buildings or structures that do not meet the CEQA criteria for historical resource (Section 15064.5 of the State CEQA Guidelines), no further mitigation is required. For a building, structure, or district that qualifies as or has already been designated as a historical resource, the architectural historian and the City shall consult to consider measures that would enable the project to avoid direct or indirect impacts to the building, structure, or district. These could include preserving a building on the margin of the project site, using it "as is," or other measures that would not alter the building or substantially affect the overall integrity of the historical resource. If the project cannot avoid modifications to a historic building or structure, the City shall require the following measures to be implemented to the extent feasible: 1) If the building or structure can be preserved on site, but remodeling, renovation or other alterations are required, this work shall be conducted in compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties 2) If a significant historic building or structure is proposed for major alteration or renovation, or to be moved and/or demolished, the City shall ensure that a qualified architectural historian thoroughly documents the building and associated landscaping and setting. Documentation shall include still and video photography and a written documentary record/history of the building to the standards of the Historic American Building Survey or Historic American Engineering Record, including accurate scaled mapping, architectural descriptions, and scaled architectural plans, if available. The record shall be prepared in consultation with State Historic Preservation Officer and filed with the Office of Historic Preservation. The record shall be accompanied by a report containing site-specific history and appropriate contextual information. This information shall be gathered through site specific and comparative archival research, and oral history collection as appropriate. 3) If preservation and reuse at the site are not feasible, the historical building shall be documented as described in item (2) and, when physically and financially feasible, be moved and preserved or reused in a manner consistent with the Secretary of the Interior Standards for the Treatment of Historic Properties.	

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Impact 4.4-2: Impacts to Significant Archaeological Resources Future development under the WBSP could include properties that contain known or yet unknown archaeological resources. Therefore, ground-disturbing activities resulting from subsequent projects under the WBSP could result in discovery or damage of yet undiscovered archaeological resources as defined in CEQA Guidelines Section 15064.5. This would be a potentially significant impact.	PS	**Mitigation Measure 4.4-2: Response Measures for Potential Unknown Archaeological Resources** Mitigation Measure 4.4-2 is intended for individual projects implemented under the WBSP. Where ground disturbing activities occur in native soils, or there is no evidence of extensive past ground disturbances, a qualified archaeologist meeting the United States Secretary of Interior guidelines for professional archaeologists will monitor ground- disturbing activities. If evidence of any historic-era subsurface archaeological features or deposits are discovered during construction-related earth-moving activities (e.g., ceramic shard, trash scatters), all ground-disturbing activity in the area of the discovery shall be halted until a qualified archaeologist can access the significance of the find. If after evaluation, a resource is considered significant, all preservation options shall be considered as required by CEQA, including possible data recovery, mapping, capping, or avoidance of the resource. If artifacts are recovered from significant historic archaeological resources, they shall be housed at a qualified curation facility. The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and distributes this information to the public.	LTS
Impact 4.4-3: Impacts to Tribal Cultural Resources Consultation with UAIC and Wilton Rancheria has revealed that the Specific Plan Area is considered culturally sensitive. Therefore, it is possible that known or yet undiscovered tribal cultural resources could be encountered or damaged through implementation of subsequent projects under the WBSP. This would result in a potentially significant impact.	PS	**Mitigation Measure 4.4-3a: Implement a Cultural Resources and Tribal Cultural Resources Sensitivity and Awareness Training Program Prior to Ground-Disturbing Activities** The City shall require the applicant/contractor to provide a cultural resources and tribal cultural resources sensitivity and awareness training program (Worker Environmental Awareness Program [WEAP]) for all personnel involved in project construction, including field consultants and construction workers. The WEAP will be developed in coordination with an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology, as well as culturally affiliated Native American tribes. The City may invite Native American representatives from interested culturally affiliated Native American tribes to participate. The WEAP shall be conducted before any project-related construction activities begin at the project site. The WEAP will include relevant information regarding sensitive cultural resources and tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations.	LTS

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		The WEAP will also describe appropriate avoidance and impact minimization measures for cultural resources and tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential cultural resources or tribal cultural resources are encountered. The WEAP will emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance to Native Americans and will discuss appropriate behaviors and responsive actions, consistent with Native American tribal values. **Mitigation Measure 4.4-3b: In the Event That Cultural Resources or Tribal Cultural Resources Are Discovered During Construction, Implement Avoidance and Minimization Measures to Avoid Significant Impacts and Procedures to Evaluate Resources** If cultural resources or tribal cultural resources (such as structural features, unusual amounts of bone or shell, artifacts, or human remains) are encountered at the project site during construction, work shall be suspended within 100 feet of the find (based on the apparent distribution of cultural materials), and the construction contractor shall immediately notify the project's City representative. Avoidance and preservation in place is the preferred manner of mitigating impacts to cultural resources and tribal cultural resources. This will be accomplished, if feasible, by several alternative means, including: ◢ Planning construction to avoid tribal cultural resources, archaeological sites and/or other cultural resources; incorporating cultural resources within parks, green-space or other open space; covering archaeological resources; deeding a cultural resource to a permanent conservation easement; or other preservation and protection methods agreeable to consulting parties and regulatory authorities with jurisdiction over the activity. ◢ Recommendations for avoidance of cultural resources and tribal cultural resources will be reviewed by the City representative, interested culturally affiliated Native American tribes and other appropriate agencies, in light of factors such as costs, logistics, feasibility, design, technology and social, cultural and environmental considerations, and the extent to which avoidance is consistent with project objectives. Avoidance and design alternatives may include realignment within the project site to avoid cultural resources or tribal cultural resources, modification of the design to eliminate or reduce impacts to cultural resources or tribal cultural resources or modification or realignment to avoid highly significant features within a cultural resource or tribal cultural resource.	

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		◢ Native American representatives from interested culturally affiliated Native American tribes will be invited to review and comment on these analyses and shall have the opportunity to meet with the City representative and its representatives who have technical expertise to identify and recommend feasible avoidance and design alternatives, so that appropriate and feasible avoidance and design alternatives can be identified. ◢ If the discovered cultural resource or tribal cultural resource can be avoided, the construction contractor(s), will install protective fencing outside the site boundary, including a 100-foot buffer area, before construction restarts. The boundary of a cultural resource or a tribal cultural resource will be determined in consultation with interested culturally affiliated Native American tribes and tribes will be invited to monitor the installation of fencing. Use of temporary and permanent forms of protective fencing will be determined in consultation with Native American representatives from interested culturally affiliated Native American tribes. ◢ The construction contractor(s) will maintain the protective fencing throughout construction to avoid the site during all remaining phases of construction. The area will be demarcated as an "Environmentally Sensitive Area". If a cultural resource or a tribal cultural resource cannot be avoided, the following performance standard shall be met prior to continuance of construction and associated activities that may result in damage to or destruction of cultural resources or tribal cultural resources: ◢ Each resource will be evaluated for California Register of Historical Resources (CRHR) eligibility through application of established eligibility criteria (California Code of Regulations 15064.636), in consultation with consulting Native American Tribes, as applicable. If a cultural resource or a tribal cultural resource is determined to be eligible for listing in the CRHR, the City will avoid damaging effects to the resource in accordance with California PRC Section 21084.3, if feasible. The City shall coordinate the investigation of the find with a qualified archaeologist (meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology) approved by the City and with interested culturally affiliated Native American tribes that respond to the City's invitation. As part of the site investigation and resource assessment, the City and the archaeologist shall consult with interested culturally affiliated Native American tribes to assess the significance of the find, make recommendations for further evaluation and treatment as necessary and provide proper management recommendations should potential impacts to the resources be determined by the City to be significant. A written report detailing the site assessment, coordination activities, and management	

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		recommendations shall be provided to the City representative by the qualified archaeologist. These recommendations will be documented in the project record. For any recommendations made by interested culturally affiliated Native American tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record. Native American representatives from interested culturally affiliated Native American Tribes and the City representative will also consult to develop measures for long-term management of any discovered tribal cultural resources. Consultation will be limited to actions consistent with the jurisdiction of the City and taking into account ownership of the subject property. To the extent that the City has jurisdiction, routine operation and maintenance within tribal cultural resources retaining tribal cultural integrity shall be consistent with the avoidance and minimization standards identified in this mitigation measure. If the City determines that the project may cause a significant impact to a tribal cultural resource, and measures are not otherwise identified in the consultation process, the following are examples of mitigation capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to the resource. These measures may be considered to avoid or minimize significant adverse impacts and constitute the standard by which an impact conclusion of less-than significant may be reached: ◢ Avoid and preserve resources in place, including, but not limited to, planning construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria. ◢ Treat the resource with culturally appropriate dignity taking into account the Tribal cultural values and meaning of the resource, including, but not limited to, the following: ◤ Protect the cultural character and integrity of the resource. ◤ Protect the traditional use of the resource. ◤ Protect the confidentiality of the resource. ◤ Establish permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places. ◤ Protect the resource.	

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Impact 4.4-4: Discovery of Human Remains Though there are identified sacred sites within the Specific Plan Area, no known past cemeteries are present. Earth-moving activities associated with subsequent projects implemented under the WBSP could disturb or destroy previously undiscovered human remain or burials. This impact is considered potentially significant.	PS	**Mitigation Measure 4.4-4: Response Protocol in Case Human Remains are Uncovered** Consistent with the California Health and Safety Code and the California Native American Historical, Cultural, and Sacred Sites Act, if suspected human remains are found during future project-level construction, all work shall be halted in the immediate area and place an exclusion zone (lath and flagging) around the burial. The Principal Investigator will notify the City of Sacramento Police Department, who will in turn notify the county coroner to determine the nature of the remains. The coroner shall examine all discoveries of suspected human remains within 48 hours of receiving notice of a discovery on private or State lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she shall contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The NAHC shall then assign an MLD to serve as the main point of Native American contact and consultation. Following the coroner's findings, the MLD, in consultation with the City, shall determine the ultimate treatment and disposition of the remains.	LTS
Impact 4.4-5: Potential for the Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Cultural Resources Implementation of the WBSP, in combination with other cumulative development in the area, could result in impacts to cultural and tribal cultural resources in the area. However, through the implementation of plan-specific mitigation measures, the contribution of the WBSP would be cumulatively considerable with respect to archaeological and tribal cultural resources and human remains. However, the potential remains for a potential or designated historic resource (i.e., building or structure) to be lost with implementation of the WBSP, and as a result, the WBSP's contribution would remain cumulative considerable. Impacts would be significant.	S	No additional feasible mitigation is available to reduce the project's contribution to less than cumulatively considerable.	SU
4.5 Energy			
Impact 4.5-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy, During Construction or Operation Implementation of the WBSP would result in the consumption of additional energy supplies during the construction of new land uses within the Specific Plan Area. However, the consumption of energy during construction activities would be temporary	LTS	No mitigation is required for this impact.	LTS

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and are not anticipated to require additional capacity or substantially increase peak or base period demands for electricity and other forms of energy. Operation of new land uses associated with WBSP implementation would also result in additional energy consumption. However, the WBSP includes policies and guidelines intended to increase use of active transportation modes and reduce energy associated with vehicle usage, as well as the incorporation of energy efficiency and renewable energy measures in new development. As a result, impacts would be less than significant.			
Impact 4.5-2: Conflict With or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency Although implementation of the WBSP would increase energy demands as a result of the construction and operation of new land uses within the Specific Plan Area, development would be required to comply with applicable California Energy Code requirements and would also comply with the WBSP's policies and guidelines intended to encourage energy efficiency measures and incorporate renewable energy into individual development projects in the Specific Plan Area. As a result, implementation of the WBSP would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.5-3: Potential for Implementation of the WBSP, in Combination With Other Development, to Contribute to a Significant Cumulative Impact Related to Energy Demand Implementation of the WBSP, in combination with other cumulative development in the area, would increase energy demands in the area. However, the WBSP includes several design features and policies related to energy efficiency, and new development would comply with applicable energy-efficiency-related requirements such that the WBSP would not be considered cumulatively considerable with respect to energy-related impacts. Impacts would be less than significant.	LTS	No Mitigation is required for this impact.	LTS
4.6 Geology and Soils			
Impact 4.6-1: Expose People or Structures to Potential Substantial Adverse Impacts Through the Rupture of a Known Earthquake Fault, Strong Seismic Shaking, Seismic-Related Ground Failure, Soil Liquefaction, or Landslides Although the WBSP is not located near an active fault zone, seismic events located outside of the Sacramento region may result in seismic related risks at the Specific Plan	LTS	No mitigation is required for this impact.	LTS

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Area including ground shaking, ground failure, and soil liquefaction. Building design standards would ensure impacts would be less than significant.			
Impact 4.6-2: Result in Substantial Soil Erosion Construction activities pursuant to the WBSP, including excavation, grading, and trenching, would remove existing vegetation coverage and/or concrete surfaces and potentially expose soil to wind and rain resulting in soil erosion or loss of topsoil. Future development under the WBSP would comply with 2035 General Plan policies EC 1.1.2 and ER 1.1.7 by conducting a geotechnical investigation and implementing erosion control measures. In addition, compliance with the CBC and NPDES program would require implementation of BMPs and a SWPPP that reduce the potential for erosion and loss of top soil. Compliance with these policies and regulations would reduce the potential for soil erosion or loss of top soil. Impacts related to soil erosion would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.6-3: Damage or Instability as a Result of Construction on Unstable Soils The Specific Plan Area may include soil conditions that present the risk of lateral spreading, subsidence, liquefaction, or collapse. Construction of residential, office, and retail buildings, as well as, bridges and infrastructure proposed as part of the project may occur on expansive soils. Geotechnical investigations and soil condition reports required by the City and the CBC would identify unsuitable soil conditions and recommend measures that would eliminate inappropriate soil conditions and include structural design that would withstand the instability of expansive soils. Compliance with state and local policies and regulations, as well as conformance with the CBC, would ensure impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.6-4: Locate Project Facilities on Expansive Soil, Creating Substantial Risks to Life or Property Expansive soils may be present within the Specific Plan Area and may create risks to property. However, site-specific geotechnical investigations would be conducted, and structural design and construction would comply with state and local policies and regulations. Impacts related to expansive soil would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.6-5: Loss of a Unique Paleontological Resource or Geologic Feature No known unique paleontological resource or site or unique geologic feature has been identified with the Specific Plan Area. The potential that construction of the project could	LTS	No mitigation is required for this impact.	LTS

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directly or indirectly destroy a unique paleontological resource or site or unique geologic feature would be less than significant.			
Impact 4.6-6: Potential for Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Geology and Soils Implementation of the WBSP, in combination with other cumulative development in the area, would involve an intensification of development and redevelopment activities within and in the vicinity of the Specific Plan Area, which could contribute to cumulatively geology and soils impacts in the area. However, through adherence to applicable 2035 General Plan policies and other regulatory requirements, the contributions of individual projects, including development within the WBSP, within the cumulative context would be less than cumulatively considerable. Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
4.7 Greenhouse Gas Emissions and Climate Change			
Impact 4.7-1: Generate GHG Emissions That May Have a Significant Impact on the Environment or Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of GHGs Implementation of the WBSP would result in a net increase in GHG emissions. GHG emissions would be generated during the construction of individual development projects built in the Specific Plan Area. GHG emissions would also be generated during normal operations of individual development projects within the Specific Plan Area. The Project includes a number of design features that will help reduce GHG emissions associated with implementation of the plan. Additionally, the City is currently developing an update to their CAP document, which will ensure that new development projects built as part of the plan include a set of measures that would reduce GHG emissions in line with the City and State's long-term GHG reduction target for 2030. GHG emissions generated during construction and operations of the individual development projects within the Specific Plan Area would not result in a considerable contribution to global climate change and associated significant impacts on the environment. Therefore, this impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS

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4.8 Hazards and Hazardous Materials			
Impact 4.8-1: Exposure to Hazardous Materials During Construction Construction of residential, commercial, industrial, and public facilities under the WBSP would involve the use, storage, and transport of hazardous materials. All such hazardous materials and activities would be typical for such uses, and would be expected to be used in compliance with local, state, and federal regulations, which would minimize but not eliminate the potential for upset or accident conditions. A Phase I ESA has not been completed for the Specific Plan Area, although one would be prepared for individual developments within it. As a result, unknown environmental conditions could be encountered during construction. The impact to the public and the environment from exposure to these unknown hazardous materials and other hazards during construction would be potentially significant.	PS	**Mitigation Measure 4.8-1a: Complete a Phase I ESA and Implement Recommended Actions** A site-specific Phase I ESA shall be completed by project applicants for individual projects within the Specific Plan Area. Each Phase I ESA shall be performed in general conformance with the scope and limitations of ASTM E 1527-13 "Standard Practice for Environmental Site Assessments" and EPA "Standards and Practices for All Appropriate Inquires," 40 CFR Part 312. If existing hazardous materials contamination is identified in the Phase I ESA, and the Phase I ESA recommends further review, the project applicant shall retain a Registered Environmental Assessor or other qualified professional to conduct follow-up sampling to characterize the contamination and to identify and require appropriate remediation that shall be conducted. Recommendations may include, but are not limited to, guidance on mitigating hazards from encountering contaminated groundwater, including measures related to disturbance of existing treatment systems, drilling, groundwater extraction, or vapor intrusion. These recommendations shall be implemented, and the site shall be deemed remediated by the appropriate agency (DTSC or Sacramento County EMD) or Sacramento County shall issue a no further action letter before earth disturbance in the vicinity of the contamination. **Mitigation Measure 4.8-1b: Adhere to California Excavation Laws and Coordinate with Local Utilities to Ensure Safety and Accessibility of Pipelines** Before issuance of grading permits or improvement plans, project applicants shall coordinate with local utility providers to prepare final site design that adheres to pipeline setback recommendations. Project applicants shall coordinate with local utilities prior to and during construction to ensure appropriate inspection, access, grading, and excavation. Project applicants shall comply with Excavation Law detailed in the California Excavation Manual (USA North 811 2018) and Title 49 CFR Part 196, discussed in Section 4.8.1, "Regulatory Setting." For projects located near gas pipelines owned or maintained by PG&E, project applicants shall coordinate with PG&E to ensure the following as appropriate: ◢ A PG&E Gas Transmission Standby Inspector must be present during any demolition or construction activity that comes within 10 feet of the gas pipeline.	LTS

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		◢ Access to gas pipelines shall be available at any time. Any construction equipment, materials, or spoils may need to be removed upon notice. Any temporary construction fencing installed within PG&E's easement would also need to be capable of being removed at any time upon notice. ◢ Weight limits shall be enforced whenever any equipment gets within 10 feet of traversing the pipe. ◢ A minimum of 36 inches of cover over gas pipelines (or existing grade if less) and a maximum of 7 feet of cover at all locations shall be required. The graded surface cannot exceed a cross slope of 1:4. ◢ Any digging within 2 feet of a gas pipeline shall be dug by hand. Note that while the minimum clearance is only 12 inches, any excavation work within 24 inches of the edge of a pipeline shall be done with hand tools. ◢ PG&E Pipeline Services must review and approve all plans to bore across or parallel to (within 10 feet) a gas transmission pipeline. ◢ All utility crossings of a gas pipeline should be made as close to perpendicular as feasible (90° +/- 15°). All utility lines crossing the gas pipeline must have a minimum of 12 inches of separation from the gas pipeline. ◢ No structures are to be built within the PG&E gas pipeline easement. This includes buildings, retaining walls, fences, decks, patios, carports, septic tanks, storage sheds, tanks, loading ramps, or any structure that could limit PG&E's ability to access its facilities. ◢ Permanent fencing is not allowed within PG&E easements except for perpendicular crossings which must include a 16-foot-wide gate for vehicular access. ◢ Landscaping must be designed to allow PG&E to access the pipeline for maintenance and not interfere with pipeline coatings or other cathodic protection systems. ◢ Any proposed facilities, such as metal conduit, pipes, service lines, ground rods, anodes, wires, etc. that might affect the pipeline cathodic protection system must be reviewed and approved by PG&E Corrosion Engineering. ◢ Pipeline marker signs that are in direct conflict with proposed developments may only be temporarily relocated to accommodate construction work with prior written approval from PG&E Pipeline Services. ◢ Any plans that impact PG&E's facilities must be reviewed and approved by PG&E to ensure that no impact occurs which may endanger the safe operation of its facilities.	

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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Impact 4.8-2: Exposure to Hazardous Materials During Operation During the operation of land uses associated with implementation of the WBSP, the transport, use, and disposal of hazardous or potentially hazardous materials would occur. General commercial and household hazardous materials are typically handled and transported in small quantities and would be required to comply with regulations covering the use, storage, and disposal of hazardous materials and wastes. Any businesses that would store hazardous materials and/or waste at its business site would be required by the State of California Office of Emergency Services to submit business information and hazardous materials inventory forms contained in a Hazardous Materials Management Plan and/or HMBP. With adherence to existing regulatory requirements, impacts related to routine use or disposal of hazardous materials would be minimized. Additionally, future discretionary projects in the Specific Plan Area would be subject to environmental review in which any potential exposure to hazardous materials sites would be addressed in accordance with existing laws and regulations adopted to protect public and environmental health. Because compliance with all applicable laws and regulations at the federal, State, and local levels would prevent exposure of individuals and the environment to hazards, this impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.8-3: Exposure of School Sites to Hazardous or Acutely Hazardous Materials, Substances, or Waste within 0.25 mile of a Proposed School Leataata Floyd Elementary School and Arthur Benjamin Health Professional High School are located within the Specific Plan Area. In addition, two other child care centers are located within Specific Plan Area. The use of common construction and household hazardous materials would be required during construction and operation of land uses associated with implementation of the WBSP. However, the anticipated uses under the WBSP are not typically associated with the use of substantial quantities of acutely hazardous materials. Furthermore, the use, transport, and storage of such materials would be regulated by the DOT, CHP, Caltrans, and EMD and businesses would be required to implement HMBPs. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.8-4: Impair Implementation of or Physically Interfere with an Emergency Response Plan or Emergency Evacuation Area Development under the WBSP may require temporary road closures during construction that could restrict the movement of vehicular traffic and may interfere with emergency response or emergency evacuation. Once operational, a future developments pursuant	PS	**Mitigation Measure 4.8-4: Prepare Construction Traffic Management Plan** Implement Mitigation Measure 4.12-7.	LTS

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to the WBSP would not interfere with emergency response and would ensure adequate access. Because construction activities within the Specific Plan Area could result in roadway closures and could interfere with an emergency response plan or emergency evacuation area, impacts would be potentially significant.			
Impact 4.8-5: Potential for the Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Hazards and Hazardous Materials Implementation of the WBSP, in combination with other cumulative development in the area, would involve development and redevelopment activities within the Specific Plan Area. Through adherence to applicable regulatory requirements and implementation of project-specific mitigation, the contributions of individual projects under the WBSP within the cumulative context would be less than cumulatively considerable. Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
4.9 Hydrology and Water Quality			
Impact 4.9-1: Construction-Related Effects on Water Quality Construction associated with the development of uses under the WBSP would include land disturbance that could result in soil erosion, sedimentation, or release of pollutants into receiving waters. However, compliance with applicable federal, state, and local regulations and standards, including acquisition of and adherence to permits, mandate implementation of best management practices to minimize potential effects on water quality and establish discharge limits. Adherence to applicable regulations and standards would ensure that water quality effects from construction activities would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.9-2: Operational Effects on Water Quality Project operation would include impervious surfaces which could allow pollutants in urban runoff to degrade the quality of receiving waters. The City has existing policies and programs designed to reduce stormwater pollution, including the MS4 General Permit. Compliance with applicable regulations and standards would ensure that water quality effects from project operation would be less than significant.	LTS	No mitigation is required for this impact.	LTS

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Impact 4.9-3: Substantially Alter the Drainage Pattern of the Specific Plan Area Such that Substantial Erosion, Flooding, or Polluted Runoff Could Occur The WBSP would involve the redevelopment of the Specific Plan Area but would not substantially alter drainage patterns on-site or in the area such that additional and substantial erosion, flooding, or water quality impacts could occur. While a portion of the Specific Plan Area is located within the 100-year flood zone, this area is limited to the Marina/Miller Regional Park Special Study Area, and redevelopment under the WBSP would not involve the placement of substantial fill or structures that could substantially alter flood flows along the Sacramento River. Further, the remainder of the Specific Plan Area is currently developed, and its redevelopment under the WBSP would not substantially alter drainage patterns in the area. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.9-4: Interfere Substantially with Groundwater Recharge Buildout of the WBSP would add impervious surfaces to the area, which could reduce the land available for groundwater recharge. However, the land along the Sacramento River would remain the primary location for groundwater recharge. Adherence to applicable regulations regarding dewatering and discharges would ensure that project effects on groundwater supply, quality, and recharge would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.9-5: Potential for the Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Hydrology and Water Quality Development of past, present, and future projects in the area, including the WBSP, could have a significant cumulative effect on hydrology and water quality due to changes in permeability of land surfaces and the potential for increased pollutants within groundwater and surface water. Adherence to the policies, permits, and regulations would ensure that the WBSP's contribution to the significant cumulative impact would be less than cumulatively considerable, and this impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
4.10 Noise and Vibration			
Impact 4.10-1: Operational Noise Operation of development permitted under the WBSP would include noise from additional traffic as well as non-transportation sources such as noise associated with loading docks and garbage collection services. These activities would result in increased elevated noise levels near sensitive receptors. Further, it is possible that such activities	S	**Mitigation Measure 4.10-1: Loading Dock Noise** For development of new commercial or mixed-use buildings within the Specific Plan Area, the applicant shall demonstrate that noise levels from loading docks would not exceed the stationary noise standards established in the City's Code. To demonstrate that a proposed	SU

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could occur during non-exempt evening and nighttime hours and exceed the City's nighttime noise standard. This impact would be potentially significant.		development would meet the City's stationary noise standards, the applicant must implement the following measures: a) Before the issuance of building permits, the applicant shall submit engineering and acoustical specification for the proposed locations of onsite loading docks to the Planning Director, demonstrating that the loading dock design (types, location, enclosure, specification) will control noise from the equipment to at least 10 dB below existing ambient levels at nearby residential and other noise sensitive land uses. b) Noise-generating stationary equipment associated with proposed commercial and/or office uses, including portable generators, compressors, and compactors shall be enclosed or acoustically shielded to reduce noise-related impacts to noise-sensitive residential uses.	
Impact 4.10-2: Construction Noise and Vibration Construction activities within the WBSP could result in a substantial or temporary periodic increase in ambient noise levels to sensitive receptors in the area. This impact would be potentially significant.	PS	**Mitigation Measure 4.10-2: Construction Noise** For all projects in the Specific Plan Area that require a building permit, the City shall require that the contractor implement the following measures during all phases of construction: a) All heavy construction equipment and all stationary noise sources (such as diesel generators) shall have manufacturer-installed mufflers. b) Auger displacement shall be used for installation of foundation piles, if feasible. c) Restrict heavy-duty equipment operations in close proximity to buildings. If impact pile driving is required, sonic pile drivers shall be used, unless engineering studies are submitted to the City that show this is not feasible, based on geotechnical considerations.	SU
Impact 4.10-3: Residential Interior Noise Standards Development under the WBSP could result in noise impacts to sensitive receptors, particularly residential uses. However, residential development within the WBSP would be required to comply with the most current version of Title 24 of the California Code of Regulations, which requires an interior noise standard of 45 dBA Ldn in any habitable room. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.10-4: Construction Vibration Construction of projects within the Specific Plan Area may require the use of bulldozers, impact pile drivers and other large construction equipment that could result in vibration effects. Construction activities, including impact pile driving, would be temporary and intermittent at any particular location and use in the Specific Plan Area. Due to the close proximity of existing sensitive land uses to potential WBSP construction areas, vibration	PS	**Mitigation Measure 4.10-4(a)** Implement Mitigation Measure 4.10-2. **Mitigation Measure 4.10-4(b)** For all projects in the Specific Plan Area that require the use of graders or impact pile drivers, before the issuance of any demolition, grading, or building permit, the applicant shall develop and submit a Vibration Reduction Plan to the City Chief	LTS

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levels generated during impact pile driving, if required, could exceed the applied vibration thresholds for human annoyance and/or building damage at nearby existing sensitive receptors and existing historic structures. This would result in a short-term potentially significant impact.		Building Official for approval. The Plan shall include measures that will reduce vibration at surrounding buildings to less than 80 VdB and 83 VdB where people sleep and work, respectively, and less than 0.25 PPV for historic buildings. Measures and controls are not limited to, some or all of the following: 1) Inclusion of buffers and selection of equipment to minimize vibration impacts during construction at nearby receptors to meet the specified standards. 2) Implementation of a vibration, crack, and line and grade monitoring program at existing Nationally registered, State listed, and locally recognized historic buildings located within 47 feet of construction activities. The following elements shall be included in this program: i. Before start of construction: 1. The applicant or construction contractor shall install crack gauges on proximate historic structures. ii. During building construction: 1. The construction contractor shall regularly inspect and photograph crack gauges, maintaining records of these inspections to be included in post-construction reporting. Gauges shall be inspected every two weeks, or more frequently during periods of active project actions in close proximity to crack gauges. 2. The construction contractor shall collect vibration data from receptors and report vibration levels to the City Chief Building Official on a monthly basis. The reports shall include annotations regarding project activities as necessary to explain changes in vibration levels, along with proposed corrective actions to avoid vibration levels approaching or exceeding the established threshold. 3. If vibration levels exceed the threshold and monitoring or inspection indicates that the project is damaging the historic structure, additional protection or stabilization shall be implemented. If necessary and with approval by the City Chief Building Official, the construction contractor shall install temporary shoring or stabilization to help avoid permanent impacts. Stabilization may involve structural reinforcement or corrections for deterioration that would minimize or avoid potential structural failures or avoid accelerating damage to the historic structure. Stabilization shall be conducted following the Secretary of Interior Standards Treatment of	

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		Preservation. This treatment shall ensure retention of the historical resource's character-defining features. Stabilization may temporarily impair the historic integrity of the building's design, material, or setting, and as such, the stabilization must be conducted in a manner that will not permanently impair a building's ability to convey its significance. Measures to shore or stabilize the building shall be installed in a manner that avoids damage to the historic integrity of the building, including integrity of material. iii. Post-construction: 1. At the conclusion of vibration generating construction activities, the applicant shall submit a crack and vibration monitoring report to the summary of the monitoring activities and their findings; photographs illustrating the post-construction state of cracks and material conditions that were presented in the pre-construction assessment report; annotated analysis of vibration data related to project activities; a summary of measures undertaken to avoid vibration impacts; a post-construction line and grade survey; and photographs of other relevant conditions showing the impact, or lack of impact, of project activities. The photographs shall be of sufficient detail to illustrate damage, if any, caused by the project and/or show how the project did not cause physical damage to the historic and non-historic buildings. 2. The applicant shall be responsible for repairs from damage to historic and non-historic buildings if damage is caused by vibration or movement during the demolition and/or construction activities. Repairs may be necessary to address, for example, cracks that expanded as a result of the project, physical damage visible in post-construction assessment, or holes or connection points that were needed for shoring or stabilization. Repairs shall be limited to project impacts and do not apply to general rehabilitation or restoration activities of the buildings. If necessary for historic structures, repairs shall be conducted in compliance with the Secretary of Interior Standards Treatment of Preservation. The applicant shall provide a work plan for the repairs and a completion report to ensure compliance with the SOI Standards to the City Chief Building Official and City Preservation Director for review and comment.	

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Impact 4.10-5: Potential for Implementation of the WBSP, in Combination with other Development, to Contribute to a Significant Cumulative Impact to Noise Implementation of the WBSP, in combination with other cumulative development in the area, would involve a permanent increase in ambient noise levels within and in the vicinity of the Specific Plan Area, which could contribute to significant noise impacts in the area. While implementation of feasible mitigation measures would reduce plan-specific noise impacts associated with implementation of the WBSP, impacts may not be reduced to a less-than-significant level. Therefore, the contributions of individual projects, including development of the WBSP, within the cumulative context would be cumulatively considerable. Impacts would be significant.	S	No additional feasible mitigation is available to reduce the project's contribution to less than cumulatively considerable.	SU
4.11 Public Services and Recreation			
Impact 4.11-1: Result in Substantial Adverse Physical Impacts Associated with the Provision of New Fire Facilities Implementation of the WBSP would increase the level of development within the WBSP area, including the creation of additional housing facilities that would increase the population in the area. While this could warrant the need for additional fire fighters, all new development would be required to meet SFD standards and code requirements, such that substantial additional demand for service within the Specific Plan Area is not anticipated. Further, the current level of calls for service at local fire stations does not indicate the potential need for an additional fire station. As a result, the anticipated increase in population and development within the WBSP area would not trigger the need for additional fire facilities. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.11-2: Result in Substantial Adverse Physical Impacts Associated with the Provision of New Police Facilities Implementation of the WBSP would increase the level of development within the WBSP area, including the creation of additional housing facilities that would increase the population in the area. While this could lead to an increased demand for police services, all new development would be required to contribute appropriate fees to the City's General Fund for any potential expansion of staffing or facilities. Additionally, new development would contribute appropriate fees that would be allocated through the City's General Fund for police protection services, both maintenance and expansion. As a result, the anticipated increase in population and development within the WBSP area would not trigger the need for additional police facilities. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS

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Impact 4.11-3: Result in Substantial Adverse Physical Impacts Associated with the Provision of New School Facilities Implementation of the WBSP would increase the level of development within the WBSP area, including the creation of additional housing facilities that would increase the population in the area. This would bring additional potential students that would attend school in the area. With respect to the four closest schools surrounding and within the Specific Plan Area, three of the schools are not at capacity while McClatchy High School has been over capacity for the past four academic years and shows no signs of reducing enrollment. Pursuant to SB 50, all development within the Specific Plan Area would be required to pay applicable school fees, which are deemed full and complete mitigation for impacts on schools. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.11-4: Result in Substantial Adverse Physical Impacts Associated with the Demand for or Provision of New Parks and Other Recreational Facilities Implementation of the WBSP would increase the level of development within the WBSP area, including the creation of additional housing facilities that would increase the population in the area, which would result in an increased demand for recreational facilities, including public parks. However, all development under the WBSP would be required to comply with Chapter 18.56 Park Impact Fee (PIF) for park and recreational facilities. In addition, the WBSP includes the development of 16.8 additional acres of recreational/park space within the City. As a result, implementation of the WBSP would provide adequate recreational facilities and impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.11-5: Potential for the Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Public Services and Recreation Implementation of the WBSP, in combination with other cumulative development in the area, could increase demand for public services and recreation in the area. However, through the contribution to appropriate fees to the City's General Fund and in accordance with applicable ordinances (e.g., Quimby and Park Impact Fee ordinances), the contributions of individual projects within the cumulative context would be less than cumulatively considerable. Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS

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4.12 Transportation and Circulation			
Impact 4.12-1: Impacts to Vehicle Miles Traveled The WBSP would result in reduced VMT per service population relative to Existing Conditions, but would exceed 85 percent of the existing VMT per service population average for the SACOG region under Existing Plus Project conditions. The WBSP is located within a Transit Priority Area under year 2036 conditions, as identified by SACOG in the 2016 MTP/SCS, which provides exemption for significant impact to vehicle miles traveled. However, the City of Sacramento does not provide transit service, and cannot guarantee the timing of additional transit service within the study area. Therefore, this would be a significant impact.	S	**Mitigation Measure 4.12-1: High-Quality Transit Service** As new development is proposed and/or the City makes streetscape improvements within the WBSP, the City of Sacramento shall coordinate with Regional Transit, the local transit provider, to identify and support the provision of additional transit service and/or facility improvements within the Specific Plan Area with a goal of bus service within one-half mile of every residence at a frequency of not less than 15 minutes during the weekday AM and PM peak hours. Potential transit improvements may include modifying existing transit routes or adding new routes to serve areas, including the WBSP, underserved by transit.	SU
Impact 4.12-2: Impacts to Intersection Operations Under Existing Plus WBSP conditions, all study intersections would operate acceptably during the AM and PM peak hours. Because the project would not cause any intersection operations to degrade to unacceptable levels, this would be a less-than-significant impact.	LTS	No mitigation is required for this impact.	LTS
Impact 4.12-3: Impacts to Freeway Off-Ramp Queuing Implementation of the WBSP would result in increases in queue lengths at study area freeway off-ramps. The project would not cause queueing at off-ramps that approach or extend beyond storage capacity. Therefore, this would be a less-than-significant impact.	LTS	No mitigation is required for this impact.	LTS
Impact 4.12-4: Impacts to Bicycle Facilities Implementation of the WBSP would not adversely affect existing bicycle facilities or conflict with planned bicycle facilities. The project would also include additional facilities that would also provide adequate access by bicycle. This would be a less-than-significant impact.	LTS	No mitigation is required for this impact.	LTS
Impact 4.12-5: Impacts to Pedestrian Facilities Implementation of the WBSP would not adversely affect existing pedestrian or conflict with planned pedestrian facilities. The project would also include additional facilities that would also provide adequate access for pedestrians. This would be a less-than-significant impact.	LTS	No mitigation is required for this impact.	LTS
Impact 4.12-6: Impacts to Transit Implementation of the WBSP would support enhancements to existing bus stops and provide a gridded street network that would provide additional connections and the ability for local residents to access existing transit facilities. Further, the WBSP would	LTS	No mitigation is required for this impact.	LTS

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not result in the installation of physical barriers or other facilities that could limit the ability for individuals within or adjacent to the Specific Plan Area to reach the existing transit opportunities. Thus, because the WBSP would not preclude or otherwise adversely affect access to transit service, this impact would be less than significant.			
Impact 4.12-7: Construction-Related Impacts Construction of the WBSP would involve large amounts of grading, earthwork, and construction activities over an extended period of time. Large numbers of trucks and employee trips would enter and exit the Specific Plan Area during construction. These activities could cause lane closures, damage to roadways, and increased conflicts with bicyclists, pedestrians, and transit. However, because of the extent and duration of construction, and the associated potential for prolonged lane closures, damage to roadbeds, and traffic hazards to bikes/pedestrians, WBSP impacts during construction would be significant.	PS	**Mitigation Measure 4.12-7: Prepare Construction Traffic Management Plan** Before issuance of any demolition or building permits for any phase of the project, the project applicant shall prepare a detailed Construction Traffic Management Plan that will be subject to review and approval by the City Department of Public Works, in consultation with affected transit providers, and local emergency service providers including the City of Sacramento Fire and Police departments. The plan shall ensure that acceptable operating conditions on local roadways are maintained. At a minimum, the plan shall include: ◢ The number of truck trips, time, and day of street closures ◢ Time of day of arrival and departure of trucks ◢ Limitations on the size and type of trucks, provision of a staging area with a limitation on the number of trucks that can be waiting ◢ Provision of a truck circulation pattern ◢ Identification of detour routes and signing plan for street closures ◢ Provision of driveway access plan so that safe vehicular, pedestrian, and bicycle movements are maintained (e.g., steel plates, minimum distances of open trenches, and private vehicle pick up and drop off areas) ◢ Maintain safe and efficient access routes for emergency vehicles and transit ◢ Manual traffic control when necessary ◢ Proper advance warning and posted signage concerning street/lane closures ◢ Provisions for pedestrian and bicycle safety A copy of the approved construction traffic management plan shall be submitted to local emergency response agencies and transit providers, and these agencies shall be notified at least 30 days before the commencement of construction that would partially or fully obstruct roadways. The project applicant, in coordination with the City of Sacramento, Regional Transit, and other transit providers within the project vicinity and subject to their approval, shall identify temporary bus stop locations and cause ADA-compliant replacement bus stop	LTS

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		facilities to be constructed in place of any bus stops that need to be temporarily closed during project construction. The relocation of bus stops may have a secondary impact related to the loss/relocation of a small number of on-street parking spaces and/or loading zones. This secondary impact would not be significant.	
Impact 4.12-8: Cumulative Impacts to Vehicle Miles Traveled The WBSP under Cumulative Plus Project conditions would result in reduced VMT per service population relative to Existing Conditions, but would exceed 85 percent of the existing average for the SACOG region. The WBSP is located within a Transit Priority Area under year 2036 conditions, as identified by SACOG in the 2016 MTP/SCS, which provides exemption for significant impact to vehicle miles traveled, and as a result, the project is not cumulatively considerable. Therefore, this would be a less-than-significant impact.	LTS	No mitigation is required for this impact.	LTS
Impact 4.12-9: Cumulative Impacts to Intersection Operations Under Cumulative Plus WBSP conditions, all study intersections would operate acceptably during the AM and PM peak hours, except for Riverside Boulevard / Vallejo Way (intersection 18). Because the project would cause operations at a study intersection to degrade to an unacceptable level during the AM peak hour and exacerbate unacceptable operations during the PM peak hour, it would be considered cumulatively considerable, and this would be a potentially significant cumulative impact.	PS	No feasible mitigation is available. Payment of fair share towards the installation of a dedicated northbound and southbound left-turn pockets at the Riverside Boulevard / Vallejo Way intersection and retiming the traffic signal was considered as potential mitigation, however, this would require removal of the existing dedicated bike lanes at this intersection. As this would remove existing bicycle facilities and create a gap in the City's bicycle network, this is not considered to be feasible mitigation.	SU
Impact 4.12-10: Cumulative Impacts to Freeway Off-Ramp Queuing The project would worsen off-ramp queueing under cumulative conditions. During the PM peak hour, the US 50 eastbound off-ramp queue at X Street / 5th Street would extend beyond storage capacity under Cumulative No Project conditions. The addition of the WBSP would exacerbate this unacceptable condition, which would be considered cumulatively considerable. Therefore, this would be a potentially significant cumulative impact.	PS	**Mitigation Measure 4.12-10: Pay Fair Share Contribution to I-5 Freeway Subregional Corridor Mitigation Program** Pay fair share contribution to the I-5 Freeway Subregional Corridor Mitigation Program (SCMP).	LTS
Impact 4.12-11: Cumulative Impacts to Bicycle Facilities Implementation of the WBSP would not adversely affect existing or planned bicycle facilities under cumulative conditions. The project would also include additional facilities that would also provide adequate access by bicycle, such that it would not be considered cumulatively considerable. This would be a less-than-significant impact.	LTS	No mitigation is required for this impact.	LTS

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Impact 4.12-12: Cumulative Impacts to Pedestrian Facilities Implementation of the WBSP would not adversely affect existing pedestrian or conflict with planned pedestrian facilities. The project would also include additional facilities that would also provide adequate access for pedestrians. This would be a less-than-significant impact.	LTS	No mitigation is required for this impact.	LTS
Impact 4.12-13: Cumulative Impacts to Transit Existing high-quality transit currently serves the northeast portion of the Specific Plan Area. The WBSP eliminates gaps and removes barriers and provides several new gridded areas that will improve access to transit provided by Regional Transit. The plan also specifies that it will support enhancements to existing bus stops. The WBSP would provide adequate access to transit under cumulative conditions; therefore, this would be a less-than-significant impact.	LTS	No mitigation is required for this impact.	LTS
4.13 Utilities and Service Systems			
Impact 4.13-1: Water supply and Infrastructure Impacts. Existing water supplies would be adequate to serve the short-term and long-term needs of the project. Project-generated water demands would not exceed water supplies available during normal, dry and multiple dry years. The existing water transmission and distribution system within the Specific Plan Area is adequate to serve the anticipated increase demands with the redevelopment of the area. Therefore, impacts related to water supply and infrastructure would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.13-2: Wastewater Treatment and Stormwater Drainage Demand and Capacity. The existing CSS experiences combined sewer outflows and overflows during heavy-rainfall. Project development would generate additional sanitary sewer flows and stormwater drainage that would increase demand. Because the CSS may be inadequate during wet weather flows and the project would increase demand, this impact would be potentially significant.	PS	**Mitigation Measure 4.13-2a: Stormwater Drainage Improvements** The City shall manage wastewater from the WBSP such that it shall not exceed existing CSS capacity by implementing one or more of the following methods: ◢ Project applicants within the Specific Plan Area shall pay the established CSS drainage impact fee. This fee is currently $6.89 per square foot of increased imperviousness; ◢ Project applicants within the WBSP shall directly mitigate the impacts utilizing low impact development Best Management Practices (BMPs); ◢ Project applicants within the WBSP shall directly mitigate the impacts via an on-site or off-site improvement (e.g., installation of new drainage infrastructure) as determined by a Drainage Design Report; ◢ For projects disturbing less than 2 acres, project applicants within the WBSP shall prepare a Drainage Design Report and provide a minimum of 7,600 cubic-feet of on-site storage per	LTS

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
		acre of increased impervious area. The maximum discharge flow rate from the on-site storage shall be required to be limited to 0.18 cfs per acre; or ◢ At the City's discretion, project applicants within the WBSP shall share in a City-sponsored project that improves the system in the area and can be upsized to incorporate mitigation of the project. A separate cost sharing agreement shall be executed for this option. **Mitigation Measure 4.13-2b: Sewer Flow Mitigation** The City shall require the project applicant to mitigate the increased sewer flows for development within the WBSP. The City shall require one of the following measures to mitigate the impacts: ◢ Project applicants within the WBSP shall pay the established CSS mitigation fee, identified in Chapter 13.08 of the City code, which requires developers to pay a development fee to recover an appropriate share of the capital costs of the CSS facilities needed to accommodate new development in the CSS area.; or ◢ At the City's discretion, the project applicants within the WBSP shall participate in a City-sponsored project that improves the system in the area and can be upsized to incorporate mitigation of the project. A separate cost sharing agreement shall be executed for this option.	
Impact 4.13-3: Solid Waste Disposal Capacity and Reduction Goals Implementation of the project would not result in a substantial increase in solid waste and would therefore not result in the need to expand or construct new solid waste facilities. In addition, the project would not conflict with any solid waste reduction goal and would comply with all state and local management and reduction statutes and regulations related to solid waste. Therefore, impacts related to solid waste would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.13-4: Require Construction of New/Expanded Electricity, Gas, and Telecommunication Services and Facilities. Development proposed in the WBSP may require minor expansion of electrical, gas, and telecommunication services and facilities. However, improvements would be included within the WBSP footprint, project applicants would coordinate with utility providers, and would comply with all laws and regulations related to utility improvements. Therefore, impacts related to electrical, gas, and telecommunication improvements would be less than significant.	LTS	No mitigation is required for this impact.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Impact 4.13-5: Potential for the Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Utilities and Service Systems Implementation of the WBSP, in combination with other cumulative development in the area, could increase demand for utility service in the area. However, adequate capacity would be available, either through existing facilities or improvements planned as part of the overall utility system and funded through appropriate fees on a project-by-project basis, and the contributions of individual projects within the cumulative context would be less than cumulatively considerable. Impacts would be less than significant.	LTS	No mitigation is required for this impact.	LTS

1 INTRODUCTION

This draft environmental impact report (Draft EIR) evaluates the potential physical environmental impacts of the proposed West Broadway Specific Plan (WBSP or specific plan). This Draft EIR (SCH# 2018072032) has been prepared by the City of Sacramento, as lead agency, in conformance with CEQA (Public Resources Code [PRC] Section 21000, et seq.) and the State CEQA Guidelines (California Code of Regulations (CCR), Title 14, Chapter 3, Section 15000, et seq.) to disclose the environmental impacts associated with implementation of the WBSP. This EIR is an informational document intended to inform the public and decision-makers about the environmental consequences of the proposed WBSP for the City of Sacramento. The EIR considers the environmental impacts of the proposed plan, as well as the additive effects (i.e., cumulative impacts) of growth throughout the Sacramento area and the region.

This chapter summarizes the purpose of the EIR for the WBSP and addresses the environmental procedures that are to be followed according to State law, the intended uses of the EIR, the EIR scope and organization, and a summary of the agency and public comments received during the public review period for the Notice of Preparation (NOP) of the EIR.

1.1 BACKGROUND

Historically, development within the WBSP has occurred sporadically on a parcel-by-parcel basis. The Marina Vista and Alder Grove public housing projects, which are located in the southern and eastern portions of the Specific Plan Area, were originally constructed in the 1940s; the Northwest Land Park Planned Unit Development (PUD) (also referred to as the Mill), a four-phase, residential community within the central portion of the Specific Plan Area, was initially approved by the City in 2011 and is currently under construction. Past planning efforts have focused on discrete land use types and developments within the Specific Plan Area, including: the Sacramento Riverfront Master Plan, the Docks Specific Plan, the Northwest Land Park PUD Guidelines, and the Urban Land Institute's – Broadway Vision Plan. Revitalization planning for the Specific Plan Area has occurred through preparation of the Upper Land Park-Broadway Choice Neighborhoods Transformation Plan, addressing the Marina Vista and Alder Grove public housing communities. Other efforts include the Broadway Complete Streets Plan and Broadway Bridge Project, each of which is currently underway. The City is seeking, through the specific plan process, to provide for the orderly and systematic integration of land uses within the WBSP consistent with the City's goals and that maximizes opportunities afforded by the area's proximity to the Sacramento River and the downtown area. The City is also seeking to acknowledge the WBSP's location as a gateway to the City and recent regional efforts to provide increased connectivity, such as the Broadway Bridge.

1.2 PURPOSE AND INTENDED USES OF THIS DRAFT EIR

This EIR has been prepared by the City of Sacramento to evaluate the physical environmental effects of the proposed WBSP. The City is the lead agency for consideration of this EIR and project approval. CEQA requires that public agencies consider the potentially significant adverse environmental effects of projects over which they have discretionary approval authority before taking action on those projects (PRC Section 21000 et seq.). CEQA also requires that each public agency avoid or mitigate to less-than-significant levels, wherever feasible, the significant adverse environmental effects of projects it approves or implements. If a project would result in significant and unavoidable environmental impacts (i.e., significant effects that cannot be feasibly mitigated to less-than-significant levels), the project can

still be approved, but the lead agency decision makers must articulate and adopt findings and issue a "statement of overriding considerations" explaining in writing the specific economic, social, or other considerations that they believe, based on substantial evidence, make those significant effects acceptable (PRC Section 21002; State CEQA Guidelines Section 15093).

According to the State CEQA Guidelines (Section 15064[f][1]), preparation of an EIR is required whenever a project could result in a significant adverse environmental impact. An EIR is an informational document used to inform public agency decision makers and the general public of the significant environmental effects of a project, identify feasible ways to mitigate or avoid those effects, and describe a range of reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project while substantially lessening or avoiding any of the significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project.

The purpose of this EIR is to identify and assess the anticipated environmental impacts of the project, with a focus on significant and potentially significant environmental impacts. Its role is not to recommend approval or denial of the project but instead to provide information sufficient to allow meaningful comment and participation by public agencies, interest groups, and the public.

1.3 PUBLIC REVIEW PROCESS

As identified above in Section 1.3, "Scope of this Draft EIR," in accordance with CEQA regulations, an NOP was distributed on July 12, 2018, to responsible agencies, interested parties and organizations, and private organizations and individuals that could have interest in the project. The NOP was also available at the Community Development Department offices at 300 Richards Blvd, 3rd Floor, Sacramento, CA 95811, and a scoping meeting was held on July 25, 2018 to solicit comments regarding the scope of the EIR in response to the NOP.

The purpose of the NOP was to provide notification that an EIR for the WBSP was being prepared and to solicit input on the scope and content of the document. The NOP and responses to the NOP are included in Appendix A of this Draft EIR.

This Draft EIR is being circulated for public review and comment for a period of 45 days. During this period, comments on environmental issues may be submitted to the lead agency by the general public, organizations and agencies.

Upon completion of the public review and comment period, a Final EIR (Final EIR) will be prepared that will include comments received at the meeting on the Draft EIR received during the public-review period, responses to those comments, and any revisions to the Draft EIR made in response to public comments. The Final EIR will also include the Mitigation Monitoring Program (MMP). The Draft EIR and Final EIR will comprise the EIR for the project.

Before adopting the WBSP, the City, as lead agency, is required to certify that the EIR has been completed in compliance with CEQA, that the decision-making body reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the lead agency.

1.4 SUBSEQUENT PROJECT APPROVALS

As described in Chapter 2, "Project Description," the proposed plan includes several approval actions that must be taken by the City and other responsible agencies, as necessary. Subsequent development activities within the WBSP area must be consistent with the requirements of these approvals, as well as the adopted MMP, as applicable. Subsequent actions related to the proposed WBSP will include Site Plan and Design Review for specific development and infrastructure projects consistent with the WBSP, WBSP Special Planning District (SPD), WBSP Design Guidelines, WBSP Financing Plan, and other applicable regulations and requirements.

Use of this EIR to cover later project activities is addressed in PRC Section 21166 and State CEQA Guidelines Section 15162(a). Under those sections, if the proposed future activities are consistent with the proposed plan as analyzed in this EIR, and would not create new significant or substantially more severe significant impacts that were not examined in this EIR, the later activities are considered to be within the scope of the EIR and no further review under CEQA is required. More specifically, State CEQA Guidelines Section 15162(a) states:

> *When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:*
>
> 1. *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;*
> 2. *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or*
> 3. *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:*
>
>   a. *The project will have one or more significant effects not discussed in the previous EIR or negative declaration;*
>
>   b. *Significant effects previously examined will be substantially more severe than shown in the previous EIR;*
>
>   c. *Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or*
>
>   d. *Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

State CEQA Guidelines Section 15182 generally provides that any residential project undertaken that is consistent with a specific plan considered in an EIR, and that conforms to the provisions of the specific plan, is exempt from preparation of a later EIR, Mitigated Negative Declaration, or Negative Declaration, unless one of the conditions identified in State CEQA Guidelines Section 15162(a), described above, is present.

Thus, to the extent appropriate and consistent with the requirements of CEQA and the State CEQA Guidelines, the City would rely on this EIR in conjunction with its consideration of subsequent projects undertaken pursuant to the WBSP.

1.5 DRAFT EIR ORGANIZATION

This Draft EIR is organized into chapters, as identified and briefly described below. Chapters are further divided into sections (e.g., Chapter 3, "Environmental Impacts and Mitigation Measures" and Section 3.2, "Air Quality"):

The "Executive Summary": This chapter introduces the WBSP; provides a summary of the environmental review process, effects found not to be significant, and key environmental issues; and lists significant impacts and mitigation measures to reduce significant impacts to less-than-significant levels.

Chapter 1, "Introduction," provides a description of the lead and responsible agencies, the legal authority and purpose for the document, and the public review process.

Chapter 2, "Project Description," describes the location, background, and goals and objectives for the WBSP, and describes the project elements in detail.

Chapter 3, "Land Use Population and Housing," addresses the land use and planning implications of the project and discusses consistency with land use policies. This chapter also describes existing levels of and trends in population and housing in the City of Sacramento. It identifies the proposed project's development assumptions and analyzes projected population and housing growth in relation to City projections.

Chapter 4, "Environmental Impacts and Mitigation Measures," the sections within this chapter evaluate the expected environmental impacts generated by the WBSP, arranged by subject area (e.g., Air Quality, Hydrology and Water Quality, Transportation and Circulation). Within each subsection of Chapter 4, the regulatory background, existing conditions, analysis methodology, and thresholds of significance are described. The anticipated changes to the existing conditions after development of the project are then evaluated for each subject area. For any significant or potentially significant impact that would result from project implementation, mitigation measures are presented and the level of impact significance after mitigation is identified. Environmental impacts are numbered sequentially within each section (e.g., Impact 4.2-1, Impact 4.2-2, etc.). Any required mitigation measures are numbered to correspond to the impact numbering; therefore, the mitigation measure for Impact 4.2-2 would be Mitigation Measure 4.2-2.

Chapter 5, "Other CEQA Sections," evaluates growth-inducing impacts and irreversible and irretrievable commitment of resources, and discloses any significant and unavoidable adverse impacts.

Chapter 6, "Alternatives," evaluates alternatives to the WBSP, including alternatives considered but eliminated from further consideration, the No Project Alternative, and two alternative development options. The environmentally superior alternative is identified.

Chapter 7, “Report Preparers”: This chapter identifies the preparers of the document.

Chapter 8, “References”: This chapter identifies the organizations and persons consulted during preparation of this Draft EIR and the documents and individuals used as sources for the analysis.

1.6 STANDARD TERMINOLOGY

This Draft EIR uses the following standard terminology:

“No impact” means no change from existing conditions (no mitigation is needed).

“Less-than-significant impact” means no substantial adverse change in the physical environment (no mitigation is needed).

“Potentially significant impact” means an impact that might cause a substantial adverse change in the environment (mitigation is recommended because potentially significant impacts are treated as significant).

“Significant impact” means an impact that would cause a substantial adverse change in the physical environment (mitigation is recommended).

“Significant and unavoidable impact” means an impact that would cause a substantial adverse change in the physical environment and that cannot be avoided, even with the implementation of all feasible mitigation.

“Cumulative impacts” refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts (State CEQA Guidelines, Section 15355). CEQA requires that cumulative impacts be discussed when the “project’s incremental effect is cumulatively considerable” (State CEQA Guidelines Section 15130 (a)).

“Mitigation” is defined by State CEQA Guidelines (Section 15370) as:

a) Avoiding the impact altogether by not taking a certain action or parts of an action;

b) Minimizing impacts by limiting the degree of magnitude of the action and its implementation;

c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and

e) Compensating for the impact by replacing or providing substitute resources or environments.

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2 PROJECT DESCRIPTION

2.1 OVERVIEW

This chapter presents a description of the proposed West Broadway Specific Plan (WBSP) (project), including its various components and characteristics and the discretionary approvals required to implement the project. The WBSP includes land use regulations and policies designed to streamline the development process within the WBSP area, consistent with the Sacramento 2035 General Plan. The WBSP would provide a mix of traditional and urban-scale housing with neighborhood commercial uses, as well as a new vision for Miller Regional Park and the Sacramento Marina. The project is described in detail below.

2.2 PROJECT LOCATION

The West Broadway Specific Plan Area is located in the City of Sacramento (City), to the south of downtown. It is centrally located within the greater Sacramento region, including the cities of West Sacramento, Davis, and Woodland to the west; Elk Grove to the south; Rancho Cordova and Citrus Heights to the east; and Roseville and Rocklin to the north. At the local community scale, the Specific Plan Area is located within the Upper Land Park neighborhood of Sacramento, south of the Central City, and across the Sacramento River from the Pioneer Bluffs and Stone Locks areas of West Sacramento (Figure 2-1). The Specific Plan Area encompasses approximately 240 acres, bounded by the Sacramento River on the west; Broadway and Business 80/ U.S. Highway 50 (U.S. 50) to the north; Muir Way and 5th Street to the east; and 4th Avenue and Merkley Way to the south (Figure 2-2). Interstate 5 (I-5) travels north-south through the western portion of the Specific Plan Area and separates Miller Regional Park and the industrial lands east of it from the rest of the Specific Plan Area.

Freeway access to the Specific Plan Area is provided via US 50 eastbound, off the X Street/Broadway exit; by the US 50/Business 80 freeway, with an off-ramp coming into 5th Street; as well as, an on-ramp onto I-5 north, off 5th Street, adjacent to the Specific Plan Area. Local roadway access to the Specific Plan Area is provided from Front Street, 3rd Street, 6th Street, and 8th Street from the north; Riverside Boulevard from the south; and Broadway, W Street, and X Street, traveling in the east-west direction.

The Sacramento Regional Transit District (SacRT) provides bus service within and adjacent to the Specific Plan Area. Three bus routes serve the Specific Plan Area: 102-Riverside Commuter (Pocket Transit Center to Downtown 8th and F), 11-Natomas/Land Park (Land Park/City College to Natomas/Club Center), and 51-Stockton/Broadway (Florin Towne Center to Downtown 8th and F). Route 11 circulates closest to the Specific Plan Area, with a bus stop at 5th Street and Broadway. Routes 102 and 51 serve the periphery of the Specific Plan Area, on Broadway, at 8th and 9th Streets. The nearest light rail stations are located approximately 0.75 mile to the north at O Street and 8th Street and 0.75 mile to the east at the Broadway station. An upgrade of the existing rail tunnel under I-5 is planned to provide a bike and pedestrian connection from the Specific Plan Area to Front Street and the existing amenities within Miller Regional Park and the bike trail along the Sacramento River.

Source: Data adapted by Ascent Environmental in 2019

Figure 2-1 Regional Location

Source: Data adapted by Ascent Environmental in 2019

Figure 2-2 Project Location

2.3 PROJECT BACKGROUND AND NEED

Historically, development within the Specific Plan Area has occurred sporadically and on a parcel-by-parcel basis, although there are exceptions: The Marina Vista and Alder Grove public housing communities, which are located in the southern and eastern portions of the Specific Plan Area, were originally constructed in the 1940s; the Northwest Land Park Planned Unit Development (PUD) (also referred to as The Mill), a four-phase, residential community within the central portion of the Specific Plan Area, was initially approved by the City in 2011 and is currently under construction. Phase 5 of The Mill, which was not a part of the PUD, was submitted to the City for review in 2018.

Similarly, various historic planning efforts have focused on discrete land use types and developments within the Specific Plan Area, including: the Sacramento Riverfront Master Plan, the Docks Specific Plan, the Northwest Land Park PUD Guidelines, and the Urban Land Institute's – Broadway Vision Plan. More recently, revitalization planning for the Specific Plan Area occurred through preparation of the Upper Land Park-Broadway Choice Neighborhoods Transformation Plan, addressing the Marina Vista and Alder Grove public housing communities. Two other planning projects, the Broadway Complete Street Plan and Broadway Bridge Project, are underway.

2.4 EXISTING CONDITIONS

2.4.1 Planning Subareas, General Plan Land Use, and Zoning

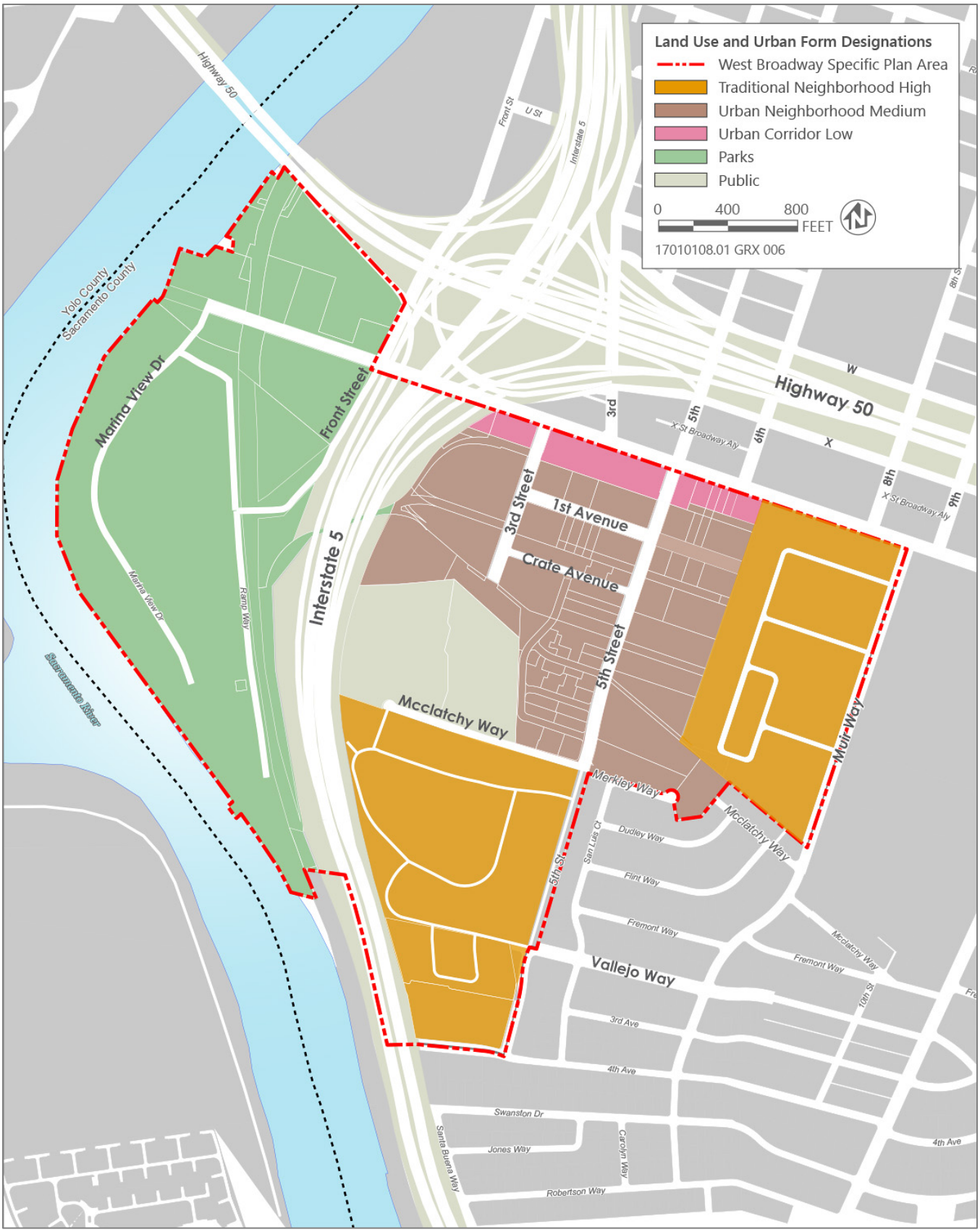
The Specific Plan Area encompasses several general plan land use designations, as shown on Figure 2-3. Properties within the Specific Plan Area are currently designated as Traditional Neighborhood Low, Traditional Neighborhood High, Urban Neighborhood Medium, Urban Corridor Low, Public/Quasi-Public, and Parks and Recreation.

As shown in Figure 2-4, the Specific Plan Area includes several zoning designations, including Multi-Family (R-3, R-3-R, and R-4-PUD), Industrial (M-1), Heavy Industrial (M-2), Limited Commercial (C-1-PUD), General Commercial (C-2 and C-2-PUD), and Transportation Corridor (TC).

The Specific Plan Area is located within two community plan areas (Central City Community Plan and Land Park Community Plan), as shown in Figure 2-5. Additional detail on planning, land use, and zoning information is provided in Chapter 3, "Land Use, Population, and Housing."

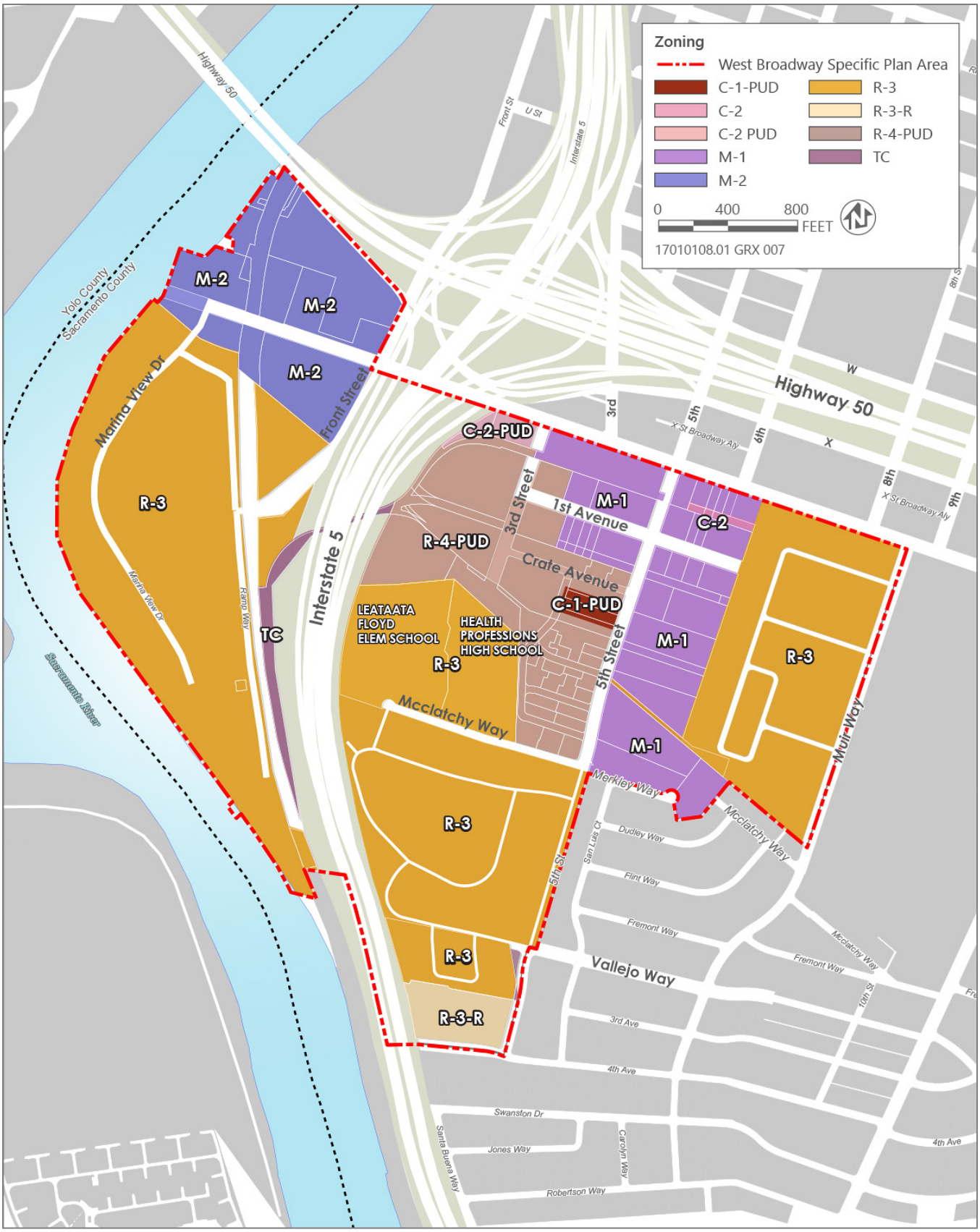
2.5 PROJECT OBJECTIVES

CEQA Guidelines Section 15124(b) requires that an EIR project description include a statement of the objectives intended to be achieved by the project. The objectives describe the purpose of the project and are intended to assist the lead agency in developing a reasonable range of alternatives for consideration in the EIR, as well as assisting the decision makers in assessing the feasibility of mitigation measures and alternatives.



Source: City of Sacramento Parcel Data, assembled by Ascent Environmental in 2019

Figure 2-3 Existing General Plan Land Use Designations



Source: City of Sacramento Parcel Data, assembled by Ascent Environmental in 2019

Figure 2-4 Existing Zoning

Source: Data downloaded from City of Sacramento in 2019

Figure 2-5 Community Plan Areas

The overall goal of the WBSP is to provide for the orderly and systematic integration of land uses within the WBSP area that is consistent with the City's goals and maximizes opportunities afforded by the area's proximity to the Sacramento River and the downtown area. More specifically, the objectives of the WBSP are to:

- Accommodate growth that increases the long-term economic sustainability, equity and well-being, and protection of important environmental resources in the Specific Plan Area.
- Provide for the orderly and systematic integration of land uses within the WBSP area that maximizes opportunities afforded by the area's proximity to the Sacramento River and Downtown Sacramento.
- Facilitate new mixed-use development, reuse, and redevelopment within the Industrial Subarea lands along 1st Avenue and 5th Street.
- Promote new infill residential development and redevelopment within the Specific Plan Area that supports a mixed-income community and a variety of housing choices, including market rate and affordable housing options for low-income, very low-income, and extremely low-income households.
- Promote neighborhood-serving uses, including a grocery store and venue(s) for after- school programs and activities for area youth.
- Enhance public recreation, use, and waterfront access at Miller Regional Park.
- Enhance the West Broadway corridor as a future gateway and bridge connection between the cities of Sacramento and West Sacramento.
- Leverage the planned improvements of the Broadway Complete Streets Plan to support economic growth and mixed-use development along West Broadway.
- Provide a gridded street network that improves the connection and access within the Specific Plan Area to surrounding uses and neighborhoods.
- Enhance bike and pedestrian travel ways through the Specific Plan Area to schools, public facilities, and neighborhood amenities.
- Support and promote local businesses in the Specific Plan Area.

2.6 PLAN CHARACTERISTICS

The WBSP focuses on reintegrating the western portion of Broadway and the Upper Land Park area into the fabric and activity of the City through enhancing and complementing current land uses and taking greater advantage of the Specific Plan Area's proximity to the Sacramento River. Development along Broadway is seeing a resurgence of activity, and the area is a key focus of recent plans and development that will alter the character and identity of the Specific Plan Area. These existing plans include:

- The Mill at Broadway development within the Specific Plan Area, which is changing the industrial character of this area into a modern, urban residential community, with over 1,000 new urban homes, a new neighborhood park, multi-use trails, and new neighborhood amenities.
- Plans for the Broadway Bridge, which will connect the Stone Locks/Pioneer Bluff area of West Sacramento to Sacramento via the Broadway corridor.
- The Complete Streets Plan for Broadway, being led by the City, will revise the configuration of Broadway within the Specific Plan Area from two lanes in each direction to one lane in each direction and a center turn lane. This will reduce traffic speed and support a main-street environment that will attract walkable retail activity and supporting land uses along Broadway.

The Specific Plan Area also encompasses Miller Regional Park and the Sacramento Marina, a large but underutilized park and open space amenity, with access and views to the Sacramento River. The programs and activities at Miller Regional Park and the Sacramento Marina have the potential to be reimagined to become a more valuable amenity to the surrounding community. For this reason, the plan includes two scenarios: *Scenario A*, which involves the redevelopment and reconfiguration of Miller Regional Park and the Sacramento Marina to provide additional active recreation and special event space; and *Scenario B*, which involves the retention of both Miller Regional Park and the Sacramento Marina in their current configuration. Both scenarios are evaluated in this EIR, with Scenario A identified as part of the proposed project, consistent with CEQA requirements and due in part to the greater level of development that would occur under Scenario A. Scenario B is presented as an option for consideration by the City and is fully evaluated herein. Refer to the description of the "Marina Miller Regional Park Special Study Area" discussion below for further clarification.

2.6.1 Organization of the Plan

The WBSP establishes the land use, circulation, infrastructure, regulatory framework, policies, development standards, and design guidelines to guide future development of the Specific Plan Area. The WBSP document is comprised of the following chapters:

- Chapter 1, "Introduction," provides an overview of the Specific Plan goals, process and the purpose, objectives, and contents of the Specific Plan document.
- Chapter 2, "Setting & Context," summarizes the existing physical and planning context for the Specific Plan Area.
- Chapter 3, "Vision & Concepts," presents the key inputs received from the community and the guiding principles and thematic concepts that will influence the form and design of the Specific Plan Area.
- Chapter 4, "Land Use & Neighborhood Character," describes the land uses, housing, and employment characteristics that define and implement the vision for the Specific Plan Area.
- Chapter 5, "Historic & Cultural Resources" identifies the historic and cultural resources and the policies to address impacts to historic resources found within the Specific Plan Area.
- Chapter 6, "Neighborhood Services & Amenities" addresses public services and amenities to the community, including parks, recreation, and open space; education; public safety; neighborhood retail and services; and cultural and entertainment amenities.
- Chapter 7, "Circulation & Mobility," describes the circulation framework and improvements to roadway, transit, bicycle, and pedestrian circulation systems.
- Chapter 8, "Utilities," addresses the infrastructure facilities and services needed to accommodate future development within the Specific Plan Area.
- Chapter 9, "Development & Design Guidelines," describes the design principles, urban design and sustainability framework, development standards, building and architectural design, landscape design, public art, and other features associated with the WBSP.
- Chapter 10, "Plan Administration," addresses the plan entitlements and the subsequent project review process.

2.6.2 Features of the Plan

The WBSP, as shown in Figure 2-6, is intended to build upon the existing assets and opportunities of the Specific Plan Area and guide future development in a manner consistent with adjacent development and the General Plan's goals and policies. The plan includes policies and implementing actions that would enhance circulation (primarily transit, bicycle, and pedestrian) within and through the Specific Plan Area, including connections to the Central City grid and surrounding neighborhood roadways and enhance and build upon existing amenities, including Miller Regional Park. The WBSP is also designed to reflect and dovetail with current and recently adopted City plans and planning and design efforts nearby, including the Mill at Broadway development, the Broadway Bridge, the Broadway Complete Streets Plan, and the Central City Specific Plan.

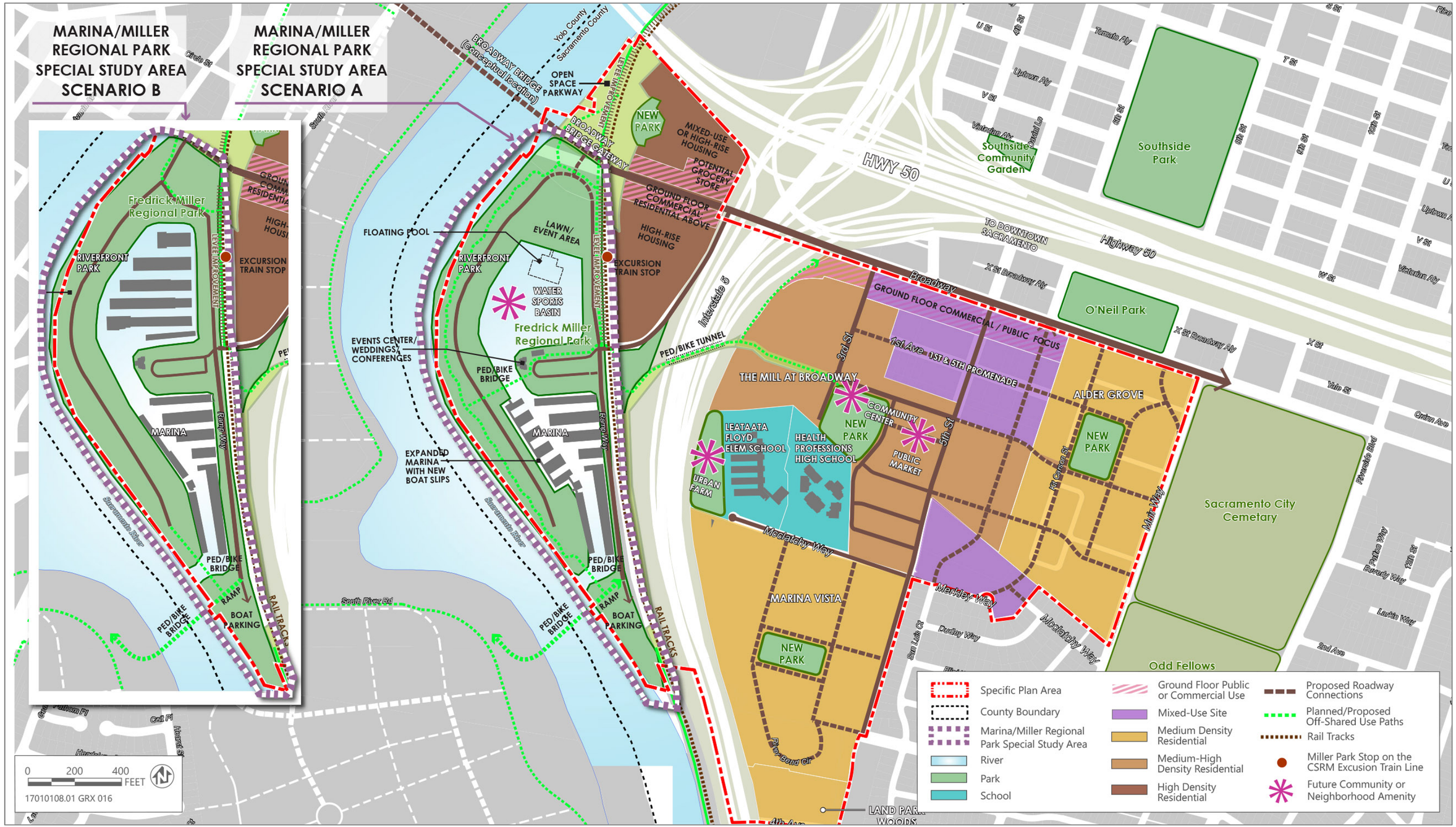
SUBAREAS OF THE WBSP

The Specific Plan Area is divided into seven planning subareas, as shown in Figure 2-7. These include West Broadway Gateway, The Mill at Broadway, Alder Grove, Marina Vista, Industrial, Land Park Woods, and School Sites; these subareas are predominantly associated with land uses which already exist or are currently under development within each subarea.

- The **West Broadway Gateway** subarea includes the parcels adjacent to the current west terminus of Broadway, bound by U.S. 50 to the north, I-5 to the east, Miller Regional Park to the south, and the Sacramento River to the east. Existing uses in this subarea include the oil refinery sites for ConocoPhilips and Chevron and an undeveloped site adjacent to the Sacramento River and west of the levee. Although not a component of this project, the City of West Sacramento is studying the potential development of the Broadway Bridge, which would connect Sacramento along the Broadway corridor to West Sacramento. The Broadway Bridge would provide an opportunity to reorient this subarea as the new western gateway into the City of Sacramento.

The WBSP is intended to support the redevelopment of the existing fuel storage facility sites in this subarea for development of a new mixed-use residential and commercial neighborhood area. This could include high-rise residential and/or a residential and hotel development north of the Broadway Bridge coupled with a mixed-use commercial and residential development that could be developed in conjunction with the adjacent parcel within the Miller Regional Park subarea south of the Broadway Bridge.

- **The Mill at Broadway** (The Mill) subarea is a new residential community currently being developed east of I-5, west of 5th Street, and south of Broadway, providing over 1,000 new housing units that offers a variety of urban housing options at different price points to serve the Sacramento area. The master plan and entitlements for the project were approved by the City as the Northwest Land Park PUD in 2007. The community features a central 3.4-acre neighborhood park that includes an existing Crate building that will be adaptively reused as a neighborhood center and dedicated to the City, a dog park, and trail connections along the former railroad right of way, referred to as Setzer Run, that will connect in the future to the Sacramento River Parkway trails via the existing railroad tunnel under I-5. The Mill will also include adaptive reuse of another existing warehouse building for a public market that serves fresh fruits, vegetables, grocery items, and prepared foods and beverages; and public art integrated as murals on warehouse walls and street art. A mural painted on the former warehouse walls of the Setzer Box Company, visible from the off-ramp to Broadway from U.S. 50, provides a reminder of the site's history as a box company producing wooden boxes for products and goods used locally and shipped throughout the United States and other countries. A 1.5-acre urban farm and 0.5-acre community garden is approved to be located on excess vacant land at the Leataata Floyd



Source: Data adapted by Ascent Environmental in 2019

Figure 2-6 Concept Plan for the West Broadway Specific Plan

Source: Data adapted by Ascent Environmental in 2019

Figure 2-7 Planning Subareas

Elementary School under an easement issued to the City. The Food Literacy Center, a Sacramento-based nonprofit organization intended to promote food awareness and healthy food consumption, will operate the farm and offer nutrition programs for use by elementary school students and nearby residents/neighbors. The community garden will have 103 plots for the teachers, parents, and neighbors to garden at. A subdivision map for Phase 5 of The Mill was submitted to the City in 2018 and review by city planners is underway.

The WBSP does not anticipate intensification of uses in The Mill but would support and guide future circulation improvements in furtherance of the overall vision of the plan. Implementation of The Mill at Broadway would continue as currently planned, with the potential extension of 6th Street through the site to support the overall connectivity of the Specific Plan Area as part of Phase 5 of The Mill at Broadway, proposed east of 5th Street.

- The **Alder Grove** subarea, at the northeast side of the Specific Plan Area, includes the Alder Grove public housing community, being managed by the Sacramento Housing and Redevelopment Agency (SHRA). Alder Grove, including the contributing buildings, site features and landscape elements of the New Helvetia historic district, is bounded by Broadway on its north boundary and consists of 360 multi-family units that range from one to five bedrooms in single and multi-story formats.

  The WBSP supports the potential redevelopment and reconfiguration of this subarea into a mixed housing community with a more walkable street grid and a new park as a focal point for activity in the community. Land use designations under the WBSP would support the potential for higher density multifamily development in this subarea, consistent with the densities and intensities recommended in the City's General Plan along a major commercial and transit corridor. SHRA would also need to approve any proposals for redevelopment of this parcel.

- The **Marina Vista** subarea, located south of McClatchy Way, is a public housing apartment community. Marina Vista is comprised of 391 multi-family units that range from 1 to 5 bedrooms in single and multi-story formats.

  The WBSP supports potential redevelopment/reuse of this subarea into a mixed housing community, with a centralized park and a roadway network with smaller blocks and better integration with the surrounding neighborhoods. Like Alder Grove, the housing within this subarea is under the management of SHRA and would require further coordination regarding the mix of uses to be provided. Similar to the Alder Grove subarea, any redevelopment of existing uses would also be subject to SHRA approval.

- The **Industrial** subarea encompasses the parcels between The Mill at Broadway and Alder Grove subareas. This subarea consists of a mix of existing commercial and industrial uses, including auto-body shops and several industrial structures that are currently vacant. Several key business anchors in operation in this subarea include KXTV/ABC 10 on the corner of Broadway and 5th Street; the Saccani Distributing Company on the southwest corner of 1st Avenue and 5th Street; a multi-tenant commercial flex space at the northeast corner of McClatchy Way and 5th Street; and a neighborhood commercial center on Broadway, near Muir Way.

  Implementation of the WBSP would allow for redevelopment of the Industrial Subarea into a series of walkable blocks, with the potential for new commercial and multi-family residential or mixed-used development. The plan would also allow for potential reuse of existing, intact industrial structures, to provide opportunities for modern industrial retail development and live-work opportunities. Within this subarea, improvement of 1st Avenue as a shaded pedestrian-oriented street is identified as a key component for connecting the community east to west.

- The **Land Park Woods** subarea, located south of Marina Vista, is an affordable family community, managed by Mercy Housing. The community consists of 75 one-, two-, and three-bedroom apartments within 11 residential buildings, connected by landscaped walkways and surrounded by mature trees. Fifty-five of those units are within the Specific Plan Area.

  No changes to this subarea are anticipated with implementation of the WBSP, and no redevelopment would be expected.

- The **School Sites** subarea includes two schools operated by the Sacramento City Unified School District: Leataata Floyd Elementary School, a public elementary school, and the Arthur A. Benjamin Health Professions High School, a public high school with a health care focus and theme. As discussed above, a 2-acre urban farm would be developed on the Leataata Floyd Elementary School site to offer an area for residents to grow their own food, a teaching environment for the school, and for farming produce sold at the Mill Market.

  No changes to this subarea are anticipated with implementation of the WBSP.

MARINA/MILLER REGIONAL PARK SPECIAL STUDY AREA

As noted above, the WBSP designates a special study area that encompasses the Sacramento Marina, Miller Regional Park, a portion of the Sacramento Southern Railroad line (as it extends through Miller Regional Park), and three parcels located east of Miller Regional Park and west of I-5. The policies and implementing actions of the WBSP identify the possibility of improving Miller Regional Park and the Sacramento Marina to enhance recreation opportunities within the Specific Plan Area. Two scenarios are under consideration for the Marina/Miller Regional Park Special Study Area, as shown earlier in Figure 2-6, and are described below. Under both scenarios, the WBSP would allow for a potential bicycle/pedestrian connection (i.e., bridge) to Southport in the City of West Sacramento.

Scenario A: Enhanced Recreation Opportunities with Reconfiguration of the Sacramento Marina

If selected, Scenario A, which is evaluated as part of the proposed project for CEQA compliance purposes within the context of this EIR, would allow for the reconfiguration of Miller Regional Park and the Sacramento Marina, to focus marina boat docking functions on an expanded south basin of the marina and provide alternative recreational opportunities on the current north basin. Expanded recreational opportunities within the north basin could support a variety of public events and activities for the region, such as water sports; restaurants and an event center; a stepped or seated lawn area for staging running, bike racing, other sporting, and music or special performance events; beach, volleyball courts, and other play areas; a public dock; steps and feet-in only access into the river; and bike trail access improvements along the Sacramento River.

Expansion of the south basin could be accomplished by narrowing the land on the peninsula between the marina and the Sacramento River. Soil or dredged material from expanding the south basin could then be used as fill to expand the land area for the park on portions of the north basin of the marina.

Scenario A features an expanded Miller Regional Park as a front door and regional amenity for the city, that could accommodate:

- 300 marina slips within the reconfigured Sacramento Marina, a net reduction of approximately 175 slips from existing conditions;

- capacity for up to 15,000 people on the event lawn (with potential and consideration for shared parking opportunities with adjacent surrounding uses, such as the Auto Museum);
- up to 60,000 square feet (sf) of building development, including restaurants, an event space, and other ancillary structures;
- a 420,000 square foot (approximately 9.6 acre) water basin for water sports and associated equipment rental and storage facilities (included in the building area assumptions for the subarea);
- a Class I shared-use path on the levee along the excursion train line;
- a new Class I shared-use path along the Sacramento River;
- two new bike and pedestrian bridges over the marina to enhance connections in the park, including one between the marina basin and water sports basin and the other to connect the current south end of the peninsula to the boat ramp area for Miller Regional Park;
- potential for a future bike and pedestrian bridge connecting Sacramento and West Sacramento;
- potential for future excursion train service and a boarding platform at Miller Regional Park to Old Sacramento;
- on the 3.4-acre park parcel north of Front Street, existing uses can remain in the interim or the site can be converted for event parking. Approximately 300 surface parking spaces can be accommodated on this site. In the future, event parking can be accommodated elsewhere and this parcel, proposed to be rezoned to C-2, could become a private mixed-use infill development, preferably with a mix of storefront retail development and residential uses above; and
- another approximately 800 parking spaces can be provided through on-street parking distributed along the main roadways within the reconfigured Miller Park and the existing parking lot south of Front Street can remain in service, a net change of an additional 150 parking spaces.

Scenario B: Enhanced Recreation Opportunities without Reconfiguration of the Sacramento Marina

If selected, Scenario B would retain the Marina in its current configuration, with the continued use and operation of existing park and marina facilities, including the Harbor Master building and bait shop/mini store and would focus enhanced recreational opportunities within a smaller area of the special study area. Under this option and with implementation of the WBSP, the special study area could accommodate:

- 475 marina slips in its existing configuration;
- approximately 5,000 sq. ft. of existing building space to be retained;
- open lawn and play areas;
- an event space or staging area;
- a Class I shared-use path on the levee along the excursion train line;
- a new bike and pedestrian bridge to connect the current south end of the peninsula to the boat ramp area for Miller Regional Park;

- potential for a future bike and pedestrian bridge connecting Sacramento and West Sacramento;
- potential for future excursion train service and a boarding platform at Miller Regional Park to Old Sacramento; and
- on the 3.4-acre park parcel north of Front Street, existing uses can remain in the interim or the site can be converted for event parking. Approximately 300 surface parking spaces can be accommodated on this site. In the future, event parking can be accommodated elsewhere and this parcel, proposed to be rezoned to C-2, could become a private mixed-use infill development, preferably with a mix of storefront retail development and residential uses above; and
- existing parking lots, including all the existing 650 parking spaces, would remain in their current configuration.

Table 2-1 compares the potential recreational amenities within the special study area that could occur under Scenarios A and B.

Table 2-1 Comparison of Scenarios A and B within Special Study Area

Scenario	Marina Slips	Building Support Space (e.g., Dining, Event, Storage, etc.)	Large Event Space	Class I Shared-Use Paths	Bike/ Pedestrian Bridges	Excursion Train Service/Stop	Parking Spaces
A	300	60,000 sf	Yes	2	Up to 3	Yes	Up to 1,100
B	475	5,000 sf	No	1	Up to 3	Yes	Up to 900

GROWTH POTENTIAL

The proposed WBSP under Scenario A for the Marina/Miller Regional Park anticipates construction and operation of new development (new buildings and new uses) combined with intensification of existing buildings and occupancy of currently vacant parcels or buildings. Table 2-2 presents a summary of the total development potential anticipated with full implementation of the WBSP under Scenarios A and B for the Marina/Miller Regional Park Special Study Area. Actual future development patterns may vary from these plan assumptions.

Table 2-3 identifies the net new level of development that may occur with implementation of the WBSP compared to the current level of development by use type within the Specific Plan Area. As shown in this table, implementation of the WBSP could result in a net increase of up to 3,787 residences (4,900 total, including existing), a net increase of 16.8 acres of parks and recreation space, and up to 42,500 sq. ft. of new recreation-related building space under Scenario A. Commercial/industrial building space is anticipated to decrease under the WBSP, Scenario A by approximately 10,775 square feet. As noted above, the City is also considering the Scenario B option, which also could result in the development of up to up to 3,787 new residences, a net new 16.8 acres of parks and recreation space, but only up to 27,500 sq. ft. of new recreation-related building space. In addition, commercial/industrial building space could decrease by 50,776 sq. ft. under the Scenario B option. The difference between the two scenarios development potential is attributable to the retention of the Sacramento Marina in its current configuration and provision of a more limited growth area for recreational activity within Miller Regional Park under the Scenario B option.

Table 2-2 Land Use and Development Assumptions Summary

Subareas	Area (gross acres)	DEVELOPMENT ASSUMPTIONS					SPECIFIC PLAN DETAILS [1]			
		Residential Density (units/gross acre)	Non-Residential FAR	Percent Residential	Percent Commercial	Percent Other Non-Residential	Dwelling Units	Commercial/Industrial Building Area (sq. ft.)	Public/Park/ Recreation Building Area (sq. ft.)	Park/Open Space (acres)
West Broadway Gateway	25.4	85	0.5	60%	24%	36%	1,300 [4]	132,670	10,000	9.3
Marina/Miller Regional Park Special Study Area Scenario A [2]	62.7	85	0.2	3%	7.8%	89.2%	150	40,000	20,000	59.3
Marina/Miller Regional Park Special Study Area Scenario B [3]	62.7	85	0.2	3%	0	97.0%	150	0	5,000	59.3
Industrial Subarea	23.5	40	0.6	70%	30%	0%	660	185,200	0	0.0
Mill at Broadway	37.3	-	-	-	-	-	1,125 [5]	37,350	11,000	3.4
Alder Grove	35.2	29	0.4	90.5%	1%	8.5%	930	34,000	6,000	3.0
Marina Vista	38.8	18.5	-	95%	0%	5%	680	0	12,500	2.5
Land Park Woods	4.1	-	-	100%	-	-	55	0	3,800	0.0
School Sites	17.0	-	-	-	-	-	0	0	99,500	2.0
Project Total (Miller Regional Park Scenario A)	**244.0**						**4,900**	**429,220**	**162,800**	**79.5**
Totals with Option (Miller Regional Park Scenario B)	**244.0**						**4,900**	**389,220**	**147,800**	**79.5**

Notes:

sq. ft. = square feet

[1] Specific Plan Details reflect gross development potential. Refer to Table 2-2 for information regarding the net change (gross – existing) that may occur with implementation of the WBSP.

[2] Other non-residential uses include parks and open space, public, and recreational buildings, and 300 boat slips in the Sacramento Marina.

[3] Other non-residential uses include parks and open space, public, and recreational buildings, and 475 boat slips in the Sacramento Marina.

[4] Assumes 1,300 residential dwelling units or a mix of residential homes and hotel rooms.

[5] Note development assumptions for The Mill include 300 units planned in Phase 5 of the project on lands located adjacent to the Industrial Subarea, east of 5th Street.

Source: City of Sacramento Parcel Data, assembled by Ascent Environmental in 2019

Table 2-3 Comparison of the Potential Land Uses under the Proposed West Broadway Specific Plan to Existing and Planned Land Uses

Subareas	Area (gross acres)	EXISTING DEVELOPMENT CONTEXT				PLANNED AND APPROVED BUT NOT DEVELOPED				NET CHANGE WITH SPECIFIC PLAN			
		Dwelling Units	Commercial/ Industrial Building Area (sq. ft.)	Public/Park/ Recreation Building Area (sq. ft.)	Park/ Open Space (acres)	Dwelling Units	Commercial/ Industrial Building Area (sq. ft.)	Public/Park/ Recreation Building Area (sq. ft.)	Park/ Open Space (acres)	Dwelling Units	Commercial/ Industrial Building Area (sq. ft.)	Public/Park/ Recreation Building Area (sq. ft.)	Park/ Open Space (acres)
West Broadway Gateway [1]	25.4	0	26,045 [1]	0	0	0	0	0	0.0	1,300	106,625	10,000	9.3
Marina/Miller Regional Park Special Study Area Scenario A	62.7	0	0	5,000	62.7 [3]	0	0	0	0.0	150	40,000	15,000	-3.4
Marina/Miller Regional Park Special Study Area Scenario B	62.7	0	0	5,000	62.7 [3]	0	0	0	0.0	150	0	0	-3.4
Industrial Subarea	23.5	0	413,950	0	0.0	0	0	0	0.0	660	-228,750	0	0
Mill at Broadway [4]	37.3	307	0	0	0.0	518	37,350	11,000	3.4	818	37,350	11,000	3.4
Alder Grove	35.2	360	0	6,000	0.0	0	0	0	0.0	570	34,000	0	3.0
Marina Vista	38.8	391	0	6,000	0.0	0	0	0	0.0	289	0	6,500	2.5
Land Park Woods	4.1	55	0	3,800	0.0	0	0	0	0.0	0	0	0	0
School Sites	17.0	0	0	99,500	0.0	0	0	0	2.0	0	0	0	2.0
Total with Miller Regional Park Scenario A	**244.0**	**1,113**	**439,995**	**120,300**	**62.7**	**518**	**37,350**	**11,000**	**5.4**	**3,787**	**-10,775**	**42,500**	**16.8**
Total with Miller Regional Park Scenario B	**244.0**	**1,113**	**439,995**	**120,300**	**62.7**	**518**	**37,350**	**11,000**	**5.4**	**3,787**	**-50,776**	**27,500**	**16.8**

Notes: sq. ft. = square feet

[1] The building area identified includes the existing buildings for Chevron and ConocoPhillips located adjacent to Front Street. The existing fuel storage tanks and other miscellaneous structures are not included in this calculation.

[2] Assumes 1,300 residential dwelling units or a mix of residential homes and hotel rooms.

[3] The parks and open space area for Miller Regional Park includes the tunnel under I-5. The proposed project, Scenario A for Miller Regional Park provides for 300 boat slips within the Sacramento Marina. Scenario B for Miller Regional would maintain the 475 boat slips within the Sacramento Marina.

[4] Note development assumptions for The Mill in the existing context are based on number of existing Phase 1 and Phase 2 units constructed and occupied in 2018 at the time of the release of the Notice of Preparation. The Planned Context encompasses the remainder of the planned development, approved as part of the Northwest Land Park PUD Guidelines (Phase 1-4). Additionally, planning for The Mill Phase 5 to include another 300 units on new lands located east of 5th Street is underway and assumed in the future Specific Plan condition.

Source: City of Sacramento Parcel Data, assembled by Ascent Environmental in 2019

INFRASTRUCTURE IMPROVEMENTS

Transportation and Mobility

Roadway Circulation

The WBSP would guide further development of a transportation system, consistent with and as an extension of Sacramento Grid 3.0, as adopted by the City Council on August 16, 2016 and which serves as the City's overarching plan for transportation programs and improvements within the downtown grid. Figure 2-8 identifies the proposed roadway circulation plan for the WBSP, including connections to existing roadway infrastructure to the north, east, and south and the proposed conceptual alignment of the Broadway Bridge that will connect the west end of Broadway with the Pioneer Bluffs area of West Sacramento. Key changes to existing circulation under the WBSP would include:

- Extension of a north-south street grid, including 6th Street, 7th Street aligning with Merkley Way/McClatchy Way, and 8th Street;
- Realignment of Muir Way to connect directly into 8th Street at Broadway; and
- The extension of east-west streets: 1st Avenue, Crate Avenue, and Tailoff Lane.

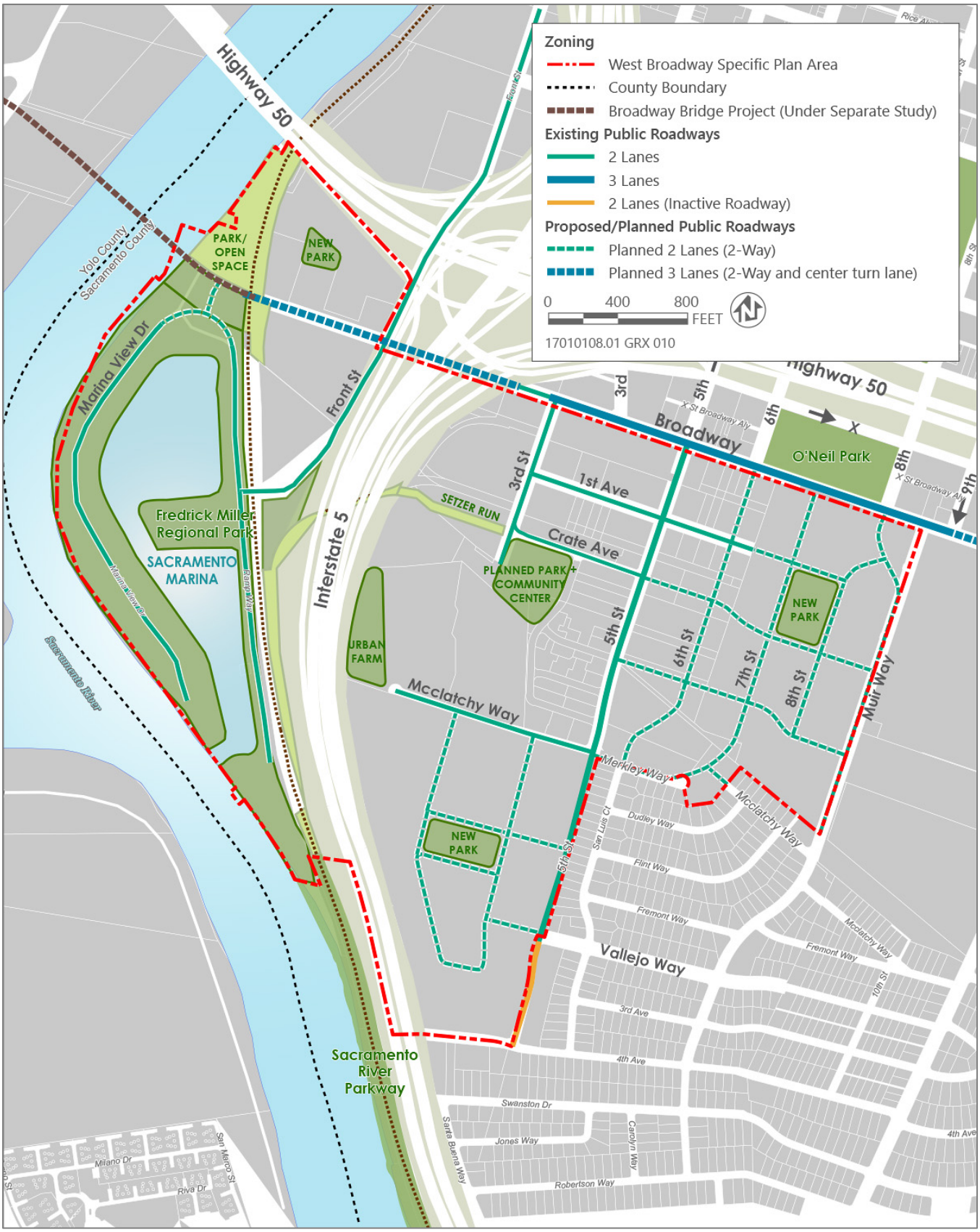
Figure 2-9 identifies the roadway classifications serving the Specific Plan Area. With implementation of the WBSP, Broadway would remain an arterial, providing east-west access from the Sacramento River to 65th Street. 3rd and 5th Street would serve as two-lane collectors within the Specific Plan Area, connecting to Broadway; and would become arterial roads north of Broadway. All other existing or planned future roadways within the Specific Plan Area would serve as local, two-lane roads, providing local neighborhood residential and commercial access or access to the Sacramento Marina and Miller Regional Park.

As shown in Figure 2-10, the majority of new intersections within the Specific Plan Area would be stop-controlled, including potential new local road intersections within Alder Grove and Marina Vista. Three new signals are included as part of the WBSP along Broadway at its intersections with Front Street, I-5 NB Off-Ramps, and the reconfigured Muir Way/8th Street.

Bicycle and Pedestrian Circulation

The WBSP includes several new Class I, II, and III facilities, as shown in Figure 2-11, to connect the Specific Plan Area to Miller Regional Park, neighborhood parks, schools, transit facilities and adjacent neighborhood areas. Bike facilities internal to the WBSP consist of:

- Class I shared-use paths linking planned and new parks within The Mill at Broadway and Marina Vista subareas and supporting safe neighborhood routes to the schools and Miller Regional Park;
- A grid system of Class II bike lanes internal to the Specific Plan Area formed by 3rd Street, 5th Street, 7th Street/McClatchy Way, and the realignment of Muir Way;
- Class III bike routes along Crate Avenue and leading from the Specific Plan Area neighborhood to Vallejo Way, as well as a connection from the anticipated Broadway Bridge to Ramp Way; and
- Local residential roads are low volume and would also allow bikes to share the road with vehicles.



Source: Data adapted by Ascent Environmental in 2019

Figure 2-8 Proposed Roadway Network

Source: Data adapted by Ascent Environmental in 2019

Figure 2-9 Proposed Street Design Categories

Source: Data adapted by Ascent Environmental in 2019

Figure 2-10 Proposed Traffic Controls within the Specific Plan Area

Source: Data adapted by Ascent Environmental in 2019

Figure 2-11 Proposed Bikeway Circulation Plan

A system of Class I shared-use paths, in addition to the existing Class III bike routes along Marina View Drive and Ramp Way, will enhance access and connectivity within Miller Regional Park. Proposed bike facility improvements include the addition of a Class I shared-use path along the levee, to close the gap and connect with existing Class I shared-use paths north of Broadway and Class I shared-use path south of Ramp Way, along the Sacramento River Parkway. In addition to shared-use paths, additional pedestrian facilities (e.g., sidewalks) would be provided as part of the WBSP, as shown in Figure 2-12.

Under Scenario A for the Marina/Miller Regional Park, the WBSP also proposes a Class I shared-use path along the Sacramento River and two new bike/pedestrian bridges that would cross over the marina. One of these bike/pedestrian bridges would be provided between the current north and south basin of the marina and another at the southern end of Marina View Drive over the boat entry and exit point into the marina docks. The bike/pedestrian bridge over the marina boat entrance would be raised to allow boats access in and out of the marina. Both Scenarios A and B for the Marina/Miller Regional Park also identify the potential for a pedestrian/bicycle bridge near the south end of the marina, as depicted in Figure 2-11, for connecting Miller Regional Park to the Stone Locks district in West Sacramento. This bridge would be raised across the Sacramento River, to allow for boats and other water vessels to cross underneath of it.

As noted earlier, improvements to the existing tunnel beneath I-5 would provide a better connection to and from Miller Regional Park from the majority of the Specific Plan Area. It would connect with the Setzer Run trail, planned at the Mill at Broadway, travel underneath I-5, and ramp up to Front Street, as identified in the tunnel-schematic trail plan in Figure 2-13, provided in the Northwest Land Park PUD. The WBSP supports improvements to the tunnel and multi-use trail, to consist of enhanced gateway and wayfinding identification at both ends of the tunnel entry; lighting, public art, and enhanced paving within the tunnel; and landscape improvements, plazas, and activation of portions of the existing city parking lot within Miller Region Park with park programming, such as a dog park, walking trails, park direction and information signage, or other park activities.

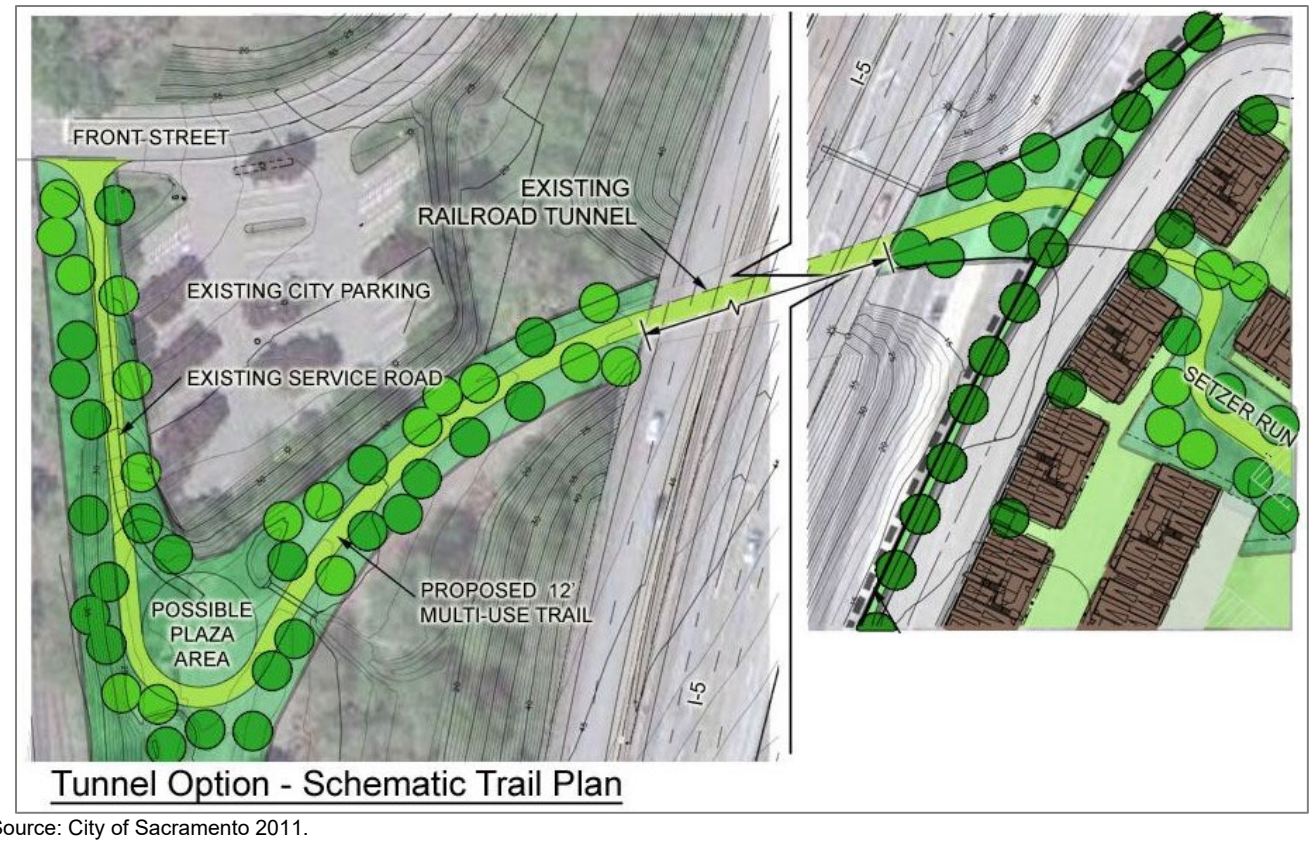
Transit

The Specific Plan Area is served by local transit service, provided by SacRT. The Specific Plan Area is directly served by three bus routes:

- Route 11 – Natomas/Land Park provides connections between Club Center Drive in Natomas and Sacramento City College with a bus stop near the intersection of Riverside Boulevard and Broadway.
- Route 51 – Broadway-Stockton provides connections between the Florin Town Centre and Downtown Sacramento, with a bus stop near the intersection of 8th Street and Broadway.
- Route 102 – Riverside Commuter provides connections primarily along Riverside Boulevard, between the Pocket Area Transit Center and Downtown Sacramento, with a bus stop near the intersection of 9th Street and Broadway.

Source: Ascent Environmental 2019

Figure 2-12 Proposed Pedestrian Circulation Plan



Source: City of Sacramento 2011.

Figure 2-13 Site Context and Concept for Railroad Tunnel and Multi-Use Trail Under I-5

The existing service times and frequencies for these bus routes are shown in Table 2-4.

Table 2-4 Schedule for Regional Transit Bus Routes Serving the Specific Plan Area

Route	Weekday		Saturday		Sunday	
	Frequency (min.)	Span	Frequency (min.)	Span	Frequency (min.)	Span
11 – Natomas / Land Park (Land Park/ Sacramento City College-Natomas/ Club Center)	30	6:00 am-8:00 pm	45	7:00 am-8:00 pm	45	7:00 am-8:00 pm
51 –Stockton / Broadway (Florin Towne Centre-Downtown 8th & F)	15	5:30 am-10:00 pm	20 at peak (30 before 7 am and after 5 pm)	6:15 am-10:00 pm	20 at peak (30 before 10 am and after 4:30 pm)	6:15 am-9:30 pm
102 – Riverside (Pocket Transit Center-Downtown 8th & F)	peak; 60 minutes	5:30 am-9:00 am; 2:30 pm-7:00 pm	N/A	-	N/A	-

Note: Schedule time span noted to the nearest 15 minutes.

Source: SacRT 2019

Existing bus facilities within and nearest to the Specific Plan range from a bus stop sign at 5th Street and Broadway; a bus stop sign, bench, and trash bin near Broadway and 6th Street; to a bus shelter, bench, and trash bin at the bus stop near 8th Street and Broadway. The WBSP supports enhancements to bus stops, with improved lighting, shelter or shade, benches/seating and transit rider conveniences, such as trash cans, and bus pull over spaces.

The Specific Plan Area is located approximately 0.75-mile from the nearest light rail station at 8th and O. The Sacramento Grid 3.0 identifies the potential for a bus layover facility under the US 50 freeway, between 5th Street and 9th Street. WBSP policies recommend coordination with SacRT to expand transit services and the transit priority area serving the Specific Plan Area as new development provides transit-supportive land uses. Additionally, as new development or streetscape improvements occur, the City would consult with SacRT about necessary improvement to existing stops and adding new stops that facilitate expanded service, including a future transit stop to serve the Sacramento Marina/Miller Regional Park and the West Broadway Gateway Subarea in the future.

Miller Regional Park is along the tracks that accommodate the Sacramento Southern excursion trains, which depart from Old Sacramento for a 6-mile trip along the banks of the Sacramento River. The train operates seasonally on weekends, with up to 16 trains a day, according to the Federal Railroad Administration. The WBSP supports the potential for an excursion train stop at Miller Regional Park, including a passenger platform, that would allow for connections between Old Sacramento and Miller Regional Park.

Utilities

The WBSP Utilities Infrastructure Analysis (see Appendix H), prepared as part of the development of the proposed WBSP, identifies potential infrastructure improvements necessary to accommodate the development and intensification anticipated with implementation of the proposed WBSP (NV5 2019). The Utilities Infrastructure Analysis identifies sanitary sewer, storm drainage, water, electrical power, telecommunications, and natural gas infrastructure capacity that would need to be provided to adequately serve new future demands in the Specific Plan Area. These proposed improvements are described further below.

Wastewater and Storm Drainage

The WBSP is currently served by the existing Combined Sewer System (CSS), with the exception of Miller Regional Park, which has a sanitary sewer connection to the CSS but discharges stormwater to the Sacramento River (NV5 2019). The CSS that serves both the sanitary sewage and much of the stormwater needs of the area consists of pipes ranging in size from 6-inches to 120-inches in diameter. The City does not anticipate the need to replace/upgrade the existing backbone infrastructure (i.e., large diameter collection mains) as part of implementation of the WBSP (NV5 2019), however, modification of the existing infrastructure that is located within the subareas of the WBSP (e.g., upsizing and/or installation of additional sump pumps within the Marina/Miller Regional Park Special Study Area) may be necessary, depending on the orientation of specific structures to be constructed. Any modifications would occur concurrent with development consistent with the overlying land use designation and zoning and would be evaluated for consistency with the overall CSS system, including historic environmental documentation related to the CSS (e.g., 1997 EIR for the City of Sacramento Combined Sewer System Project).

Water Supply

Similar to wastewater and storm drainage, the Specific Plan Area is served by the City's existing water transmission and distribution system. No upgrades to the existing system are anticipated, however, modification of existing infrastructure that is located within the subareas of the WBSP may be necessary, depending on the orientation of specific structures to be constructed.

Natural Gas

The Pacific Gas & Electric Company (PG&E) supplies natural gas to the Sacramento area, including the Specific Plan Area. PG&E would provide service to the new developments and infrastructure as they are constructed and require service. Upgrades to the existing system would be addressed on a case-by-case basis as additional information is received on proposed development and maximum and minimum gas loads required for specific uses.

Electricity

The Sacramento Municipal Utility District (SMUD) provides electrical service to customers located within the Specific Plan Area. Power is transmitted to the Specific Plan Area by a 21kV distribution system of primarily overhead facilities that begins at Station D located at 8th and R Streets in Downtown Sacramento. Certain areas of the WBSP have recently provided underground electrical lines, generally in a joint trench with other dry utilities along the street frontage or in an alley There are two feeders from the substation within the Specific Plan Area, STD2301 and STD2303.

Telecommunications

Within the Specific Plan Area, there are numerous telecommunications providers that can provide telephone and cable service to residents and businesses, including AT&T, Comcast, XO Communications and Level 3, and the City of Sacramento, which provides Municipal and Smart City services via its existing network. No upgrades to the existing system are anticipated, however, modification of existing infrastructure that is located within the subareas of the WBSP may be necessary, depending on the orientation of specific structures to be constructed.

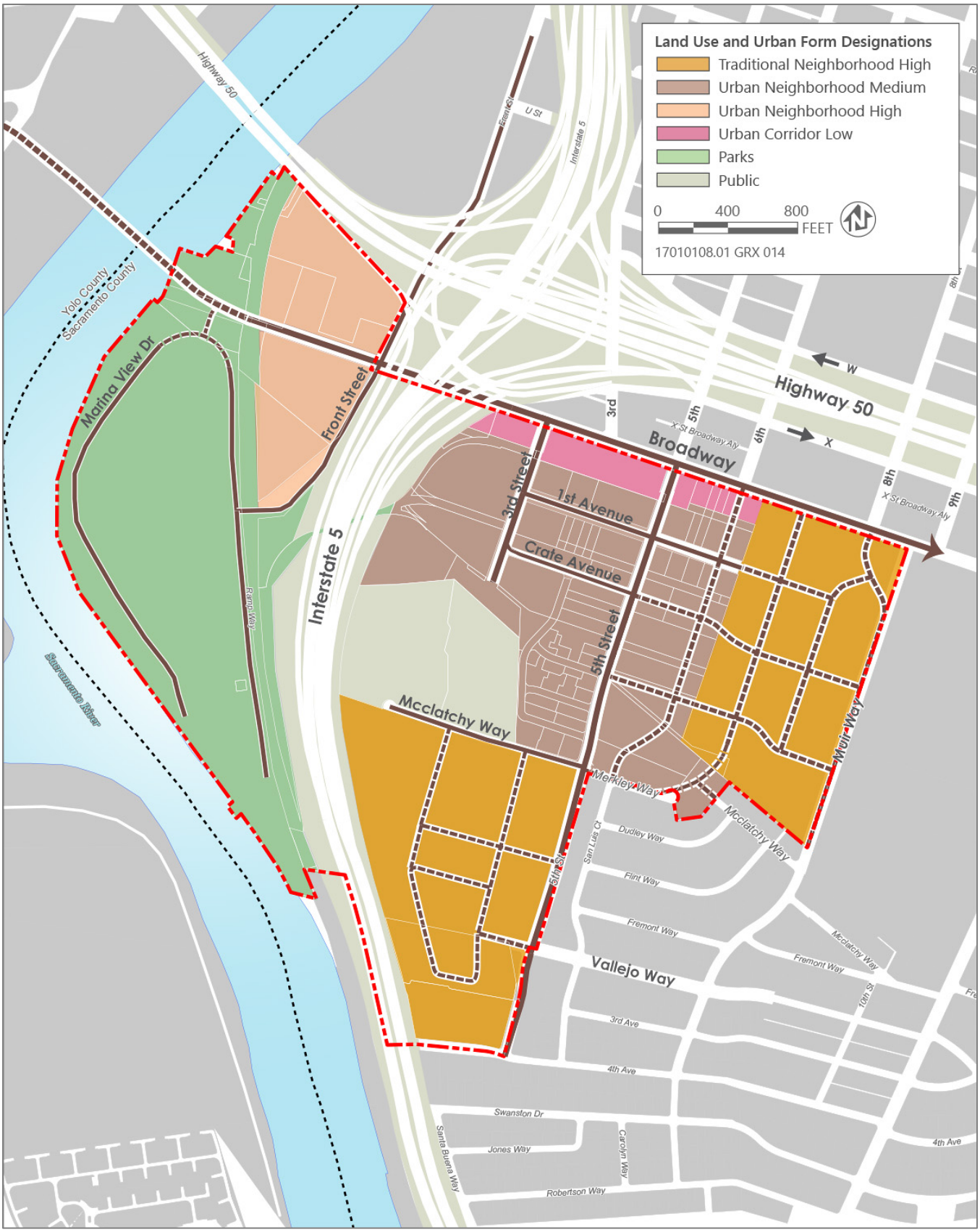
Solid Waste Disposal

Solid waste generated by single-family residences would be collected by the City of Sacramento. Non-residential solid waste and solid waste originating from multi-family residential development would be collected by private franchised haulers under the jurisdiction of the Sacrament Regional Solid Waste Authority.

2.6.3 Policy Changes

GENERAL PLAN

Under the proposed WBSP, the current General Plan land use designations within the Specific Plan Area (as shown in Figure 2-3) would be amended to reflect the re-designation of 25.4 acres of Parks and Recreation land to Urban Neighborhood High and 3.0 acres of Parks and Recreation land to Urban Neighborhood High within the West Broadway Gateway subarea (Figure 2-14). All other General Plan land use designations would remain unchanged. The proposed amendments are shown in Figure 2-14, below. Table 2-5 presents a comparison of the existing and proposed General Plan land use designations within the Specific Plan Area.



Source: Data adapted by Ascent Environmental in 2019

Figure 2-14 Proposed Land Use Designations

Table 2-5 Existing and Proposed General Plan Designations

Subareas	Area (gross acres)	Existing General Plan Land Use Designations	Area (gross acres)	Proposed General Plan Land Use Designations	Allowable Density (units/acre)/ Intensity (FAR)	Allowable Building Heights
West Broadway Gateway	25.4	Parks and Recreation	17.1	Urban Neighborhood High	61-250 / 2.0-8.0	3-8 stories
			8.3	Urban Neighborhood High	N/A	N/A
Marina/Miller Regional Park Special Study Area	62.7	Parks and Recreation	57.1	Parks and Recreation	N/A	N/A
			3.4	Urban Neighborhood High	61-250 / 2.0-8.0	3-8 stories
Industrial Subarea	5.6	Urban Corridor Low	5.6	Urban Corridor Low	20-110 / 0.3-3.0	2-6 stories
	17.9	Urban Neighborhood Medium	17.9	Urban Neighborhood Medium	33-110 / 1.5-4.0	3-8 stories
Mill at Broadway	1.2	Urban Corridor Low	1.2	Urban Corridor Low	20-110 / 0.3-3.0	2-6 stories
	36.1	Urban Neighborhood Medium	36.1	Urban Neighborhood Medium	33-110 / 1.5-4.0	3-8 stories
Alder Grove	32.2	Traditional Neighborhood High	18.1	Urban Neighborhood Medium	33-110 / 1.5-4.0	3-8 stories
	3.0	Parks and Recreation	17.1	Traditional Neighborhood High	18-36 / 0.5-1.5	1-3 stories
Marina Vista	38.8	Traditional Neighborhood High	38.8	Traditional Neighborhood High	18-36 / 0.5-1.5	1-3 stories
Land Park Woods	4.1	Traditional Neighborhood High	4.1	Traditional Neighborhood High	18-36 / 0.5-1.5	1-3 stories
School Sites	17.0	Public/Quasi-Public	17.0	Public/Quasi-Public	N/A	N/A
Totals	**244.0**		**244.0**			

Source: City of Sacramento Parcel Data, assembled by Ascent Environmental in 2019

PLANNING AND DEVELOPMENT CODE

Under the proposed WBSP, the following amendments to the current zoning designations (as shown in Figure 2-4) within the Specific Plan Area would be made:

- The M-2 zone in the West Broadway Gateway subarea and the M-1 zone in the Industrial subarea would be rezoned to C-2, to be more consistent with the changing mixed-use character of these subareas.
- The triangular R-3 zone at Miller Regional Park is proposed to be rezoned C-2, to allow flexibility for future mixed-use development on that site.
- The current R-3 zone for Alder Grove is proposed to be rezoned to R-4A, with a 17.1-acre block of R-3A provided along the project area's southern boundary. The intent of the R-4A zone is to accommodate higher-density development in the Central City and along major commercial corridors and areas near public transit facilities. The R-4A zone supports a net density of up to 110 units/acres, consistent with the General Plan vision and plans for a future streetcar line on Broadway.

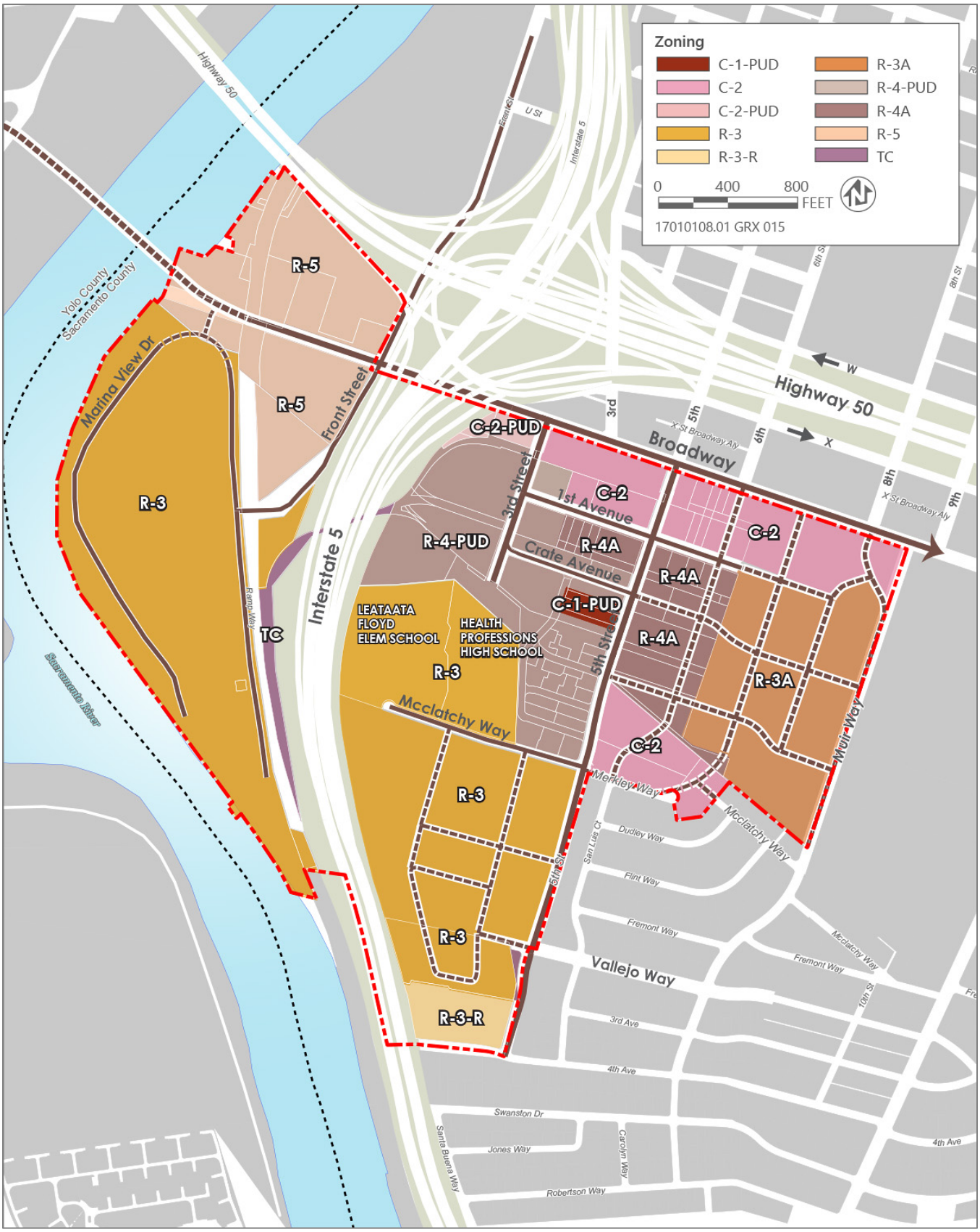
The proposed zoning designations of the WBSP are shown in Figure 2-15. Table 2-6 presents a comparison of the existing and proposed zoning designations within the Specific Plan Area.

2.7 RESPONSIBLE AND TRUSTEE AGENCIES

This EIR is intended to be used by responsible and trustee agencies (as defined by sections 15381 and 15386 of the State CEQA Guidelines) that may have review or discretionary authority over subsequent individual projects implemented under the proposed WBSP. Agencies in addition to the Lead Agency that also may use this EIR in their review of subsequent individual projects implemented under the proposed WBSP or that may have responsibility over approval of certain project elements may include, but are not limited to, the following:

FEDERAL

- United States Army Corps of Engineers (USACE)
- United States Coast Guard (USCG)
- United States Fish and Wildlife Service (USFWS)
- National Marine Fisheries Service (NMFS)



Source: Data adapted by Ascent Environmental in 2019

Figure 2-15 Proposed Zoning

Table 2-6 Existing and Proposed Zoning Districts

Subareas	Area (gross acres)	Existing Zoning Districts	Area (gross acres)	Proposed Zoning Districts	Maximum Densities (units/net acre) [1]	Height Limitations (feet)
West Broadway Gateway	25.4	M-2, Heavy Industrial	25.4	R-5, High-Rise Residential	175	65
Marina/Miller Regional Park Special Study Area	57.1	R-3, Multi-Unit Dwelling	59.3	R-3, Multi-Unit Dwelling	30	35
			3.4	R-5, High-Rise Residential	175	65
	5.6	TC, Transportation Corridor	0.6	TC, Transportation Corridor	N/A	N/A
Industrial Subarea	23.2	M-1, Light Industrial	23.5	C-2, General Commercial	As established by the General Plan	65
	0.4	C-2, General Commercial				
Mill at Broadway	28.0	R-4-PUD, Multi-Unit Dwelling, Planned Unit Development	28.0	R-4-PUD, Multi-Unit Dwelling, Planned Unit Development	60	45
	1.5	C-1-PUD, Limited Commercial, Planned Unit Development	1.5	C-1-PUD, Limited Commercial, Planned Unit Development	30	35
	1.3	C-2-PUD, General Commercial, Planned Unit Development	1.3	C-2-PUD, General Commercial, Planned Unit Development	As established by the General Plan	65
	0.6	R-3, Multi-Unit Dwelling	6.5	R-4A, Multi-Unit Dwelling	110	75
	5.9	M-1, Light Industrial				
Alder Grove	35.2	R-3, Multi-Unit Dwelling	7.5	C-2 General Commercial	As established by the General Plan	65
			27.7	R-3A, Multi-Unit Dwelling	36	35
Marina Vista	38.8	R-3, Multi-Unit Dwelling	38.8	R-3, Multi-Unit Dwelling	30	35
Land Park Woods	4.1	R-3-R, Multi-Unit Dwelling	4.1	R-3-R, Multi-Unit Dwelling	30	35
School Sites	17.0	R-3, Multi-Unit Dwelling	17.0	R-3, Multi-Unit Dwelling	30	35
Totals	**244.0**		**244.0**			

Notes: N/A = Not applicable

[1] Floor area ratios are as established by the General Plan use.

Source: City of Sacramento Parcel Data, assembled by Ascent Environmental in 2019

STATE

- California Department of Fish and Wildlife (CDFW)
- California Department of Health Services (DHS)
- California Public Utilities Commission (CPUC)
- California Department of Transportation (Caltrans)
- California Department of Toxic Substances Control (DTSC)
- California Office of Statewide Health Planning and Development (OSHPD)
- California State Lands Commission (CSLC)
- Central Valley Flood Protection Board (CVFPB)
- Central Valley Regional Water Quality Control Board (CVRWQCB)

LOCAL

- Capitol Area Development Authority (CADA)
- City of West Sacramento
- Sacramento Area Flood Control Agency (SAFCA)
- Sacramento Housing and Redevelopment Authority (SHRA)
- Sacramento Metropolitan Air Quality Management District (SMAQMD)
- Sacramento Municipal Utility District (SMUD)
- Sacramento Regional County Sanitation District (SRCSD)
- Sacramento Regional Transit (SacRT)
- West Sacramento Area Flood Control Agency (WSAFCA)

2.8 PERMITS AND APPROVALS REQUIRED

2.8.1 City of Sacramento

Adoption of the proposed WBSP is anticipated to require, but may not be limited to, the following City actions:

- Certification of the EIR to determine that it was completed in compliance with CEQA and that the decision-making body has reviewed and considered the information in the document;
- Adoption of a Mitigation Monitoring Plan (MMP), which specifies the methods for monitoring mitigation measures required to eliminate or reduce the project's significant effects on the environment;

- Adoption of Findings of Fact, and for any impacts determined to be significant and unavoidable, a Statement of Overriding Considerations;
- Approval of a Water Supply Assessment;
- Approval of one or more amendments to the 2035 General Plan;
- Approval of one or more parcel rezones;
- Approval of the WBSP;
- Approval of one or more amendments to the Planning and Development Code; and
- Approval of one or more amendments to the City of Sacramento Bicycle Master Plan.

Subsequent individual projects implemented under the proposed WBSP would be anticipated to include, but may not be limited to, the following actions by entities other than the City:

- Approval of a construction activity stormwater permit, including a Stormwater Pollution Prevention Plan, by CVRWQCB;
- Approval of a GO-88B permit to modify an at-grade railroad crossing by CPUC;
- Approval of a pre-treatment permit from the SRCSD to allow discharges associated with construction dewatering to the combined sewer system; and
- Approval of a stationary source permit from the SMAQMD.

In addition, any development (e.g., new bridges and/or modifications to the Sacramento Marina) within the Specific Plan Area that require modifications to the levees or in-water work would be anticipated to require, but may not be limited to, the following actions by entities other than the City:

- Authorization under General Bridge Act of 1946, as amended for new bridge over navigable waters of the U.S. by USCG;
- Authorizations under Sections 404 and 408 of the Clean Water Act for excavation in regulated levees by USACE;
- Coordination regarding threatened and endangered species with NMFS, USFWS, and CDFW;
- Authorization under Section 1600 et al. of California Fish and Game Code by CDFW;
- Approval of a water quality certification under Section 401 of the Clean Water Act by CVRWQCB; and
- Approval of an encroachment permit by the CVFPB.

3 LAND USE, POPULATION, AND HOUSING

3.1 INTRODUCTION

This chapter provides an overview of the land use and planning issues that may arise in connection with implementing the proposed West Broadway Specific Plan (WBSP). It describes existing and planned land uses in and adjacent to the West Broadway Specific Plan Area (Specific Plan Area), including land use designations and zoning. Section 15125(d) of the State CEQA Guidelines states that an "EIR shall discuss any inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans." Potential inconsistencies between the project and the City of Sacramento 2035 General Plan and the City's Planning and Development Code are discussed in this chapter. Notwithstanding the conclusions presented in this EIR, the final determination of project consistency with the City's 2035 General Plan is within the authority of the Sacramento Planning Commission and City Council. The information provided in this chapter is intended to inform that determination. A general discussion on plan consistency is included below.

The City does not consider inconsistency with plan policies or codes to necessarily be indicative of significant environmental impacts. To the extent that significant environmental impacts would occur as a result of policy inconsistencies, they are disclosed in the environmental resource sections of Chapter 4, "Environmental Impacts and Mitigation Measures," of this EIR. The reader, therefore, is referred to the environmental resource evaluations presented in Chapter 4 for a discussion of potential environmental effects and potential incompatibilities that may be considered in the determination of physical environmental impacts. For example, land uses that produce excessive noise, light, dust, odors, traffic, or hazardous emissions may be undesirable when they intrude on places used for residential activities. Thus, certain industrial or commercial uses that can produce noise and odors may not be considered compatible with residential, educational, or health-care uses unless buffers, landscaping, or screening could protect residents from health hazards and nuisances. Such potential land use incompatibilities would be addressed in the applicable environmental resource sections in Chapter 4.

This chapter also describes existing data and trends in population and housing in the city of Sacramento. It identifies the development assumptions on which the proposed WBSP is based and analyzes projected population and housing growth in relation to City projections.

Although an EIR may provide information regarding land use, socioeconomic, population, employment, and housing issues, pursuant to CEQA Guidelines Section 15131, these social and economic issues are not considered environmental issues. Therefore, this chapter does not identify environmental impacts and mitigation measures. Adverse physical effects on the environment that could result from implementing the project, including the changes to land use addressed in this chapter, are evaluated and disclosed in the appropriate technical sections of this EIR.

A notice of preparation (NOP) for this EIR was available for public review from July 12, 2018, through August 13, 2018. Comments received on the NOP related to land use, population, and housing addressed the perceived overconcentration of public housing in Upper Land Park, including concerns about an increase in crime and pollution and concerns about the project's proposed expansion of public housing in the neighborhood.

3.2 LAND USE

The evaluation included in this section was developed based on information provided in the City of Sacramento 2035 General Plan, City of Sacramento 2035 General Plan Master EIR, Sacramento Area Council of Governments (SACOG) Preferred Blueprint Scenario and Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), and the WBSP.

3.2.1 Environmental Setting

REGIONAL CONTEXT

The city of Sacramento is located approximately 80 miles northeast of San Francisco and 85 miles southwest of Lake Tahoe in the northern portion of the great Central Valley. The city is situated at the northern end of the Sacramento–San Joaquin Delta, and at the confluence of the Sacramento and American Rivers. Sacramento is the seat of government for the state of California and serves as the county seat of Sacramento County. The city of Sacramento is the largest city in Sacramento County.

Sacramento is a major transportation hub, the point of intersection of major transportation routes that connect Sacramento to the San Francisco Bay Area to the west, the Sierra Nevada and Nevada to the east, the city of Los Angeles to the south, and Oregon to the north. The city is crossed by several major freeways: Interstate 5 (I-5), which traverses the state from north to south; Interstate 80 (I-80) and Business 80, which provide an east-west connection between San Francisco and Reno and beyond; and U.S. Highway 50 (U.S. 50), which provides an east-west connection between Sacramento and South Lake Tahoe and points further east. Union Pacific Railroad and BNSF Railway tracks also pass through the city.

SPECIFIC PLAN AREA

The Specific Plan Area is centrally located in the greater Sacramento region, adjacent to and south of Downtown Sacramento and across the Sacramento River from West Sacramento and Yolo County communities. It is generally bounded by the Sacramento River on the west, the centerline of Broadway and U.S. 50 on the north, Muir Way and 5th Street on the east, and 4th Avenue and Merkley Way on the south (as shown in Figure 1-2 in Chapter 1, “Introduction”). I-5 travels north-south through the western portion of the Specific Plan Area and separates Miller Regional Park, the Sacramento Marina, and industrial lands form the rest of the Specific Plan Area.

The Specific Plan Area is located within the Upper Land Park neighborhood, which is a triangularly shaped predominantly residential neighborhood bounded by the Sacramento River on the west, W Street on the north, and Riverside Boulevard on the east. It is primarily a residential neighborhood, with the Alder Grove and Marina Vista housing projects, originally constructed in the 1940s, in the northcentral and western portions of the neighborhood, respectively. The Northwest Land Park Planned Unit Development, a four-phase, approximately 32-acre residential community of more than 1,000 homes, is currently under construction, in the northwestern portion of the area. Industrial development occupies the portion of the neighborhood north of this new development. The 44-acre Sacramento Historic City Cemetery, the oldest cemetery in Sacramento, is located immediately east of the Specific Plan Area.

SURROUNDING LAND USES

Community Plans

The following discussion of surrounding land uses has been separated by community plan area. As noted in Chapter 2, "Project Description," the Specific Plan Area is located primarily in the Land Park Community Plan area with certain areas adjacent to Broadway located in the Central City Community Plan area. The land uses within these areas are described below.

Land Park Community Plan Area

The Land Park Community Plan area, encompassing 6.7 square miles, or 4,327 acres, immediately south of Downtown Sacramento, is bounded by the Sacramento River on the west, Broadway on the north, SR 99 on the east, and 35th Avenue on the south. The community plan area is characterized by nine traditional neighborhoods (Upper Land Park, Land Park, Curtis Park, Sacramento City College, North City Farms, Carleton Tract, Little Pocket, Hollywood Park, and Mangan Park), tree-lined streets, parks, and local shops. Neighborhoods in the plan area are predominantly traditional in form with suburban developments located south of Sutterville Road and west of Freeport Boulevard. The traditional neighborhoods have pre–World War II development patterns that include small neighborhood-serving commercial centers. Several commercial corridors (Broadway, Franklin Boulevard, Freeport Boulevard, and Sutterville Road) provide local shopping and commercial services in the plan area. Sacramento City College provides education and employment opportunities to local and regional residents. A significant portion of the Land Park Community Plan area is used for parks, open space, and recreation, including William Land Regional Park (166.50 acres), Fredrick Miller Park (56.99 acres), the Sacramento River Parkway (25.73 acres), Curtis Park (18.57 acres), Cooledge Park (14.80 acres), and Chicory Bend (10.80 acres).

Central City Community Plan Area

The Central City Community Plan area is bounded by the Sacramento River on the west, the American River on the north, Business 80 and Alhambra Boulevard on the east, and Broadway on the south. It is the core of the city of Sacramento. Within a tree-lined street grid, this plan area has state government buildings, corporate offices and businesses, high-rise condominiums, historic neighborhoods, parks and recreational areas, restaurants and shops, schools, and industrial and manufacturing complexes. The Central City contains numerous infill parcels in large districts, such as the River District and the Railyards, as well as 13 neighborhoods: Dos Rios Triangle, Alkali Flat, Mansion Flats, New Era Park, Old Sacramento, Downtown, Boulevard Park, Marshall School, Midtown/Winn Park/Capitol Avenue, Southside Park, Richmond Grove, Poverty Ridge, and Newton Booth. Designated neighborhood corridors include sections of I Street, K Street, P Street, R Street, and Capitol Avenue in Midtown and sections of 10th Street, 16th Street, and S Street in the Southside Park area. Consistent with its urban form, the Central City has the highest percentage of multifamily attached dwelling units and office employment of any of the city's community plan areas. Parks and recreation areas are distributed throughout the Central City and include more than 20 small plazas, city parks, and waterfront areas, such as Sutter's Landing Park (172.60 acres) and Tiscornia Park (9.83 acres), which is located at the confluence of the American and Sacramento Rivers.

Surrounding Neighborhoods

Surrounding neighborhoods include Southside Park on the north, Upper Land Park on the east, and South Land Park on the south. West of the plan area, across the Sacramento River, is the city of West Sacramento.

Southside Park
The Southside Park neighborhood is bounded by I-5 on the west, R Street on the north, 12th Street on the east, and the W/X Freeway on the south. It is primarily a residential neighborhood situated on a grid street pattern and shaded by various species of mature trees. Southside Park, for which the neighborhood is named, is an approximately 20-acre park bounded by T Street on the north, W Street on the south, 6th Street on the west, and 8th Street on the east. Prominent features in Southside Park include the natural pond that forms its centerpiece, the multicolored mural that serves as a backdrop to the park's amphitheater, and the park's "Universal Universe" playground.

Upper Land Park
The Upper Land Park neighborhood is bounded by the Sacramento River on the west, Broadway on the north, Riverside Boulevard on the east, and Swanston Drive on the south. It is characterized by traditional residential areas and tree-lined streets. Outside the Specific Plan Area, the neighborhood consists primarily of single-family dwellings and the Sacramento Historic City Cemetery.

Land Park
The Land Park neighborhood, located between Upper Land Park and South Land Park, is generally bounded by Riverside Boulevard on the west, Sutterville Road on the south, Freeport Boulevard on the east, and Broadway on the north. Similar to Upper Land Park, the neighborhood is characterized by traditional residential homes and tree-lined streets. The neighborhood also consists of some commercial uses and the William Land Regional Park, which includes the William Land Park Golf Course and the Sacramento Zoo.

South Land Park
The South Land Park neighborhood, located immediately south of the Land Park neighborhood, consists primarily of single-family dwellings. It is bordered by I-5 on the west, Sutterville Road on the north, Freeport Boulevard on the east, and Florin Road on the south.

West Sacramento
The city of West Sacramento is located in eastern Yolo County, across the Sacramento River from the Specific Plan Area. It is bounded by Yolo Bypass on the west and the Sacramento River on the east. I-80 crosses the northwestern part of the city, and U.S. 50 runs east-west through the center of the city. Land uses in West Sacramento range from small, single-family residences to industrial complexes and the Port of Sacramento. The Pioneer Bluff and Stone Lock Districts are the two areas of the city located across the river from the Specific Plan Area. Pioneer Bluff is an industrial area transitioning to a mixed-use district. Stone Lock is essentially vacant and is proposed for development of a mixed-use district with a focus on residential and office uses, entertainment and destination-oriented commercial uses, and public gathering places.

3.2.2 Regulatory Setting

FEDERAL

No federal regulations that pertain to land use are applicable to the project.

STATE

Planning and Zoning Law, Government Code Sections 65000–66035

California Planning and Zoning Law requires each city to prepare and adopt "a comprehensive, long-term general plan for the physical development of the…city, and of any land outside its boundaries" (California Government Code Section 65300). Under Government Code Section 65302, each general plan must include the following seven elements: Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety.

Specific plans are policy documents that act as a bridge between a city's or county's general plan and zoning regulations for development of a particular area. Government Code Section 65450 states that a city or county may prepare a specific plan "for the systematic implementation of the general plan for all or part of the area covered by the general plan." A specific plan must be consistent with the general plan and is prepared, adopted, and amended in the same manner as a general plan, except that a specific plan may be adopted by resolution or by ordinance and may be amended as often as deemed necessary by the legislative body (Section 65453).

Senate Bill 375 of 2008

SB 375, signed by Governor Schwarzenegger in September 2008, aligns regional transportation planning efforts, regional greenhouse gas (GHG) emission reduction targets, and land use and housing allocation. It requires metropolitan planning organizations (MPOs) to adopt an SCS or alternative planning strategy, showing prescribed land use allocation in the regional transportation plan of each MPO, and to address reductions in GHGs. The California Air Resources Board (CARB), in consultation with the MPOs, provides each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in their respective regions for 2020 and 2035.

SACOG serves as the MPO for Sacramento, Placer, El Dorado, Yuba, Sutter, and Yolo Counties, excluding those lands located in the Lake Tahoe Basin. SACOG adopted its MTP/SCS in 2012 and completed an update adopted on February 18, 2016 (SACOG 2016a). SACOG was tasked by CARB to achieve a 7-percent-per-capita reduction compared to 2012 emissions by 2020 and a 16-percent-per-capita reduction by 2035, which CARB confirmed the region would achieve by implementing its SCS (CARB 2013). In June 2017, CARB released the proposed update for the SB 375 targets, tasking SACOG to achieve a 7-percent and a 19-percent per capita reduction by 2020 and 2035, respectively (CARB 2017). These targets have since been approved. A 2020 update to the SACOG MTP/SCS is currently being prepared. The thrust of SB 375 pertains to the combination of land use and transportation strategies to reduce GHG emissions such that regional targets are achieved. See Section 4.7, "Greenhouse Gas Emissions and Climate Change."

LOCAL

Sacramento Region Preferred Blueprint

The Sacramento Region Preferred Blueprint (Blueprint) is a transportation and land use study initiated by the SACOG Board of Directors in 2002 to determine alternatives to current and planned transportation and land use patterns. The Sacramento Region is defined for the purposes of SACOG and the Blueprint as El Dorado and Placer Counties (minus the Tahoe area) and Sacramento, Sutter, Yolo, and Yuba Counties. In December 2004, the SACOG Board of Directors adopted the Preferred Blueprint Scenario, a vision for growth that promotes compact, mixed-use development and more transit choices as an alternative to low-density development. The Blueprint depicts a path to regional growth through 2050 that is generally consistent with principles of "smart growth," which encourage a

variety of housing close to employment, shopping, and entertainment and provide options for walking, biking, or taking public transit. The following Blueprint Growth Principles are relevant to the analysis of land use effects (SACOG 2019):

- **Transportation choice**: Developments should be designed to encourage people to sometimes walk, ride bicycles, ride the bus, ride light-rail, take the train, or carpool. Use of Blueprint growth concepts for land use and right-of-way design encourages use of these modes of travel, and the remaining auto trips will be, on average, shorter.
- **Compact development**: Creating environments that are more compactly built and that use space in an efficient but aesthetically pleasing manner can encourage more walking, biking, and public-transit use and shorten auto trips.
- **Mixed-use development**: Building homes, shops, entertainment, office, and light-industrial uses near each other can encourage active, vital neighborhoods. This mixture of uses can be arranged vertically (such as a single building with a ground floor business and residences on upper floors) or horizontally (with a combination of uses in close proximity). These types of projects function as local activity centers where people would tend to walk or bike to destinations. Separated land uses, on the other hand, lead to the need to travel more by auto because of the distance between uses.
- **Housing choice and diversity**: Providing a variety of places where people can live—apartments, townhomes, condominiums, and single-family detached homes of varying lot sizes—creates opportunities for the variety of people who need them: families, singles, seniors, and people with special needs.
- **Use of existing assets**: In urbanized areas, development on infill or vacant lands, intensification of the use of underused parcels, or redevelopment can make better use of existing public infrastructure. Use of existing assets can also include rehabilitation and reuse of historic buildings; denser clustering of buildings in suburban office parks; and joint use of public facilities, such as schools and parking garages.
- **Natural resource conservation**: This principle encourages the incorporation of public use open space (such as parks, town squares, trails, and greenbelts) into development projects, over and above state requirements; wildlife and plant habitat preservation; agricultural preservation; and promotion of environment-friendly practices, such as energy-efficient design, water conservation and stormwater management, and use of shade trees to reduce ground temperatures during summer. In addition to encouraging resource conservation and species protection, this principle improves overall quality of life by providing places for everyone to enjoy the outdoors and creating a sense of open space.
- **Quality design**: The design details of any land use development—such as the relationship to the street, setbacks, placement of garages, sidewalks, landscaping, the aesthetics of building design, and the design of the public right-of-way (the sidewalks, connected streets and paths, bike lanes, the width of streets)—are all factors that can influence the attractiveness of living in a compact development and facilitate the ease of walking and biking to work or neighborhood services. Good site and architectural design is an important factor in creating a sense of community and a sense of place.

2016 Metropolitan Transportation Plan/Sustainable Communities Strategy

The 2016 MTP/SCS (SACOG 2016a) is a long-range plan for transportation in the region that follows SACOG's adoption of the Blueprint. It covers the period from 2012 through 2036. SACOG is required by federal law to update the MTP at least every 4 years, and SACOG is currently in the process of

preparing the 2020 update. SACOG uses the MTP/SCS to identify, in collaboration with cities, counties, and transit agencies, near-term (20-year) growth and transportation investment priorities. The City of Sacramento, as well as the other cities and counties in the region, updated its general plan and development code to allow and encourage Blueprint-friendly development and transit districts. The buildout assumptions, population projections, and transportation assumptions of the proposed 2035 General Plan are based largely on information provided by SACOG for the 2012 MTP/SCS. In the city, the MTP/SCS provides for higher densities, increased infill development, and a greater variety of housing types as generally described above.

The following guiding principles from the MTP/SCS were adopted by SACOG:

- **Smart land use**: Design a transportation system to support good growth patterns, including increased housing and transportation options, focusing more growth inward and improving the economic viability of rural areas.
- **Environmental quality and sustainability**: Minimize direct and indirect transportation impacts on the environment for cleaner air and natural resource protection.
- **Financial stewardship**: Manage resources for a transportation system that delivers cost-effective results and is feasible to construct and maintain.
- **Economic vitality**: Efficiently connect people to jobs and get goods to market.
- **Access and mobility**: Improve opportunities for businesses and citizens to easily access goods, jobs, services, and housing.
- **Equity and choice**: Provide real, viable travel choices for all people throughout our diverse region.

City of Sacramento 2035 General Plan

The project site is located in the plan area of the City of Sacramento 2035 General Plan, which was adopted on March 3, 2015, in compliance with the requirements of California Government Code Section 65300 et seq. The 2035 General Plan is a 20-year policy guide for the physical, economic, and environmental growth and renewal of the city, and it is the principal tool for the City to use in evaluating public and private building projects and municipal-service improvements. The guiding vision of the 2035 General Plan is that Sacramento will be the most livable city in America. The plan favors infill development over expanding outward into “greenfields” on the edge of the city, prioritizing reuse of underutilized properties, intensifying development near transit and mixed-use activity centers, increasing opportunities for pedestrian and bicycle use, and locating jobs closer to housing. The 2035 General Plan also calls for reducing GHG emissions, which contribute to climate change, by using solar energy systems and water conservation measures, recycling, and reducing the heat island effect. The 2035 General Plan buildout assumptions, population projections, and transportation assumptions are based largely on information provided by SACOG for the MTP/SCS.

Land Use and Urban Design Element

The Land Use and Urban Design Element, part of the City of Sacramento 2035 General Plan, sets forth goals and policies to ensure that the physical forms and patterns of future development advance the City’s desire for a higher quality of life and a more sustainable future. The City adopted the Land Use and Urban Design Element on March 3, 2015. The following goals and policies from the adopted Land Use and Urban Design Element relate to new development and are applicable to the WBSP:

GOAL LU 1.1: Growth and Change. Support sustainable growth and change through orderly and well-planned development that provides for the needs of existing and future residents and businesses, ensures the effective and equitable provision of public services, and makes efficient use of land and infrastructure.

- **Policy LU 1.1.2: Building Intensity and Population Density**. The City shall regulate the levels of building intensity and population density according to the standards and land use designations set out in the General Plan and the Sacramento City Code. Within these designations, cumulative development shall not exceed 640,400 persons and 390,100 employees by 2035.

GOAL LU 2.8: City Fair and Equitable. Ensure fair and equitable access for all citizens to employment, housing, education, recreation, transportation, retail, and public services, including participation in public planning for the future.

- **Policy LU 2.8.6: Jobs Housing Balance**. The City shall encourage a balance between job type, the workforce, and housing development to reduce the negative impacts of long commutes and provide a range of employment opportunities for all city residents.

Existing General Plan Land Use Designations

Properties in the Specific Plan Area are currently designated with the following 2035 General Plan land use designations: Traditional Neighborhood High Density, Urban Neighborhood Medium Density, Urban Corridor Low, Public/Quasi-Public, and Parks and Recreation (see Figure 2-3 in Chapter 2, “Project Description”).

The Traditional Neighborhood High-Density designation provides for single-use multifamily housing and predominantly residential mixed-use development in areas served by major transportation routes and facilities and near shopping areas, including small-lot single-family dwellings; small-lot single-family attached dwellings (e.g., duplexes, triplexes, townhomes); accessory second units; multifamily dwellings (e.g., apartments and condominiums); mixed-use neighborhood-serving commercial uses; and compatible public, quasi-public, and special uses. Development standards in the Traditional Neighborhood High-Density designation are as follows:

- Minimum density: 18.0 units per net acre,
- Maximum density: 36.0 units per net acre,
- Minimum floor area ratio (FAR): 0.50, and
- Maximum FAR: 1.50.

The Urban Neighborhood Medium-Density designation provides for moderate- to higher-intensity urban housing and neighborhood-support uses, including small-lot single-family dwellings; small-lot single-family attached dwellings (e.g., duplexes, triplexes, townhomes); multifamily dwellings (e.g., apartments and condominiums); mixed-use neighborhood-serving commercial; and compatible public, quasi-public, and special uses. Development standards in the Urban Neighborhood Medium-Density designation are as follows:

- Minimum density: 33.0 units per net acre,
- Maximum density: 110.0 units per net acre,
- Minimum FAR: 1.50, and
- Maximum FAR: 4.00.

The Urban Corridor Low designation allows for a mix of horizontal and vertical mixed-use development and single-use commercial and residential development, including retail, service, office, and residential uses; gathering places, such as plazas, courtyards, or parks; compatible public, quasi-public, and special uses; and large-scale development that includes a mix of nonresidential and residential uses with more intense development near major intersections. Development standards in the Urban Corridor Low designation are as follows:

- Minimum density: 20.0 units per net acre,
- Maximum density: 110.0 units per net acre,
- Minimum FAR: 0.30, and
- Maximum FAR: 3.00.

The Public/Quasi-Public designation allows for government buildings; public and private schools; schools/colleges; hospitals; cemeteries; airports; transportation and utility facilities; and other compatible public and quasi-public uses. Many of the Public/Quasi-Public uses are also allowed and located in other land use and urban form designations.

The Parks and Recreation designation allows for public and private recreational opportunities for surrounding neighborhoods, communities, and the region, including community and regional parks; greenways and trails; golf courses and commercial recreation facilities with an emphasis on outdoor activities; compatible public, quasi-public, and selected special uses. Typically, these areas are characterized by a high degree of open area and few structures.

Proposed General Plan Land Use Designations

Under the proposed WBSP, the current General Plan land use designations within the Specific Plan Area (as shown in Figure 2-3) would be amended to reflect the re-designation of 25.4 acres of Parks and Recreation land to Urban Neighborhood Medium and 3.0 acres of Parks and Recreation land to Traditional Neighborhood High within the West Broadway Gateway subarea (Figure 2-14). All other General Plan land use designations would remain unchanged. Table 2-4 presents a comparison of the existing and proposed General Plan land use designations within the Specific Plan Area.

Land Park and Central City Community Plans

The Land Park and Central City Community Plans, both part of the City's 2035 General Plan, provide a refinement of the goals and objectives of the general plan, and both plans serve as development guides for planning physical improvements by the public and private sector in the two plan areas. The Land Park Community Plan land use designations for the Specific Plan Area are Traditional Neighborhood High Density, Urban Neighborhood Medium Density, Public/Quasi-Public, and Parks and Recreation. The Central City Community Plan land use designations for the Specific Plan Area are Traditional Neighborhood High Density, Urban Corridor Low, Public/Quasi-Public, and Parks and Recreation. Under the proposed project, the Land Park and Central City Community Plans areas would retain the existing community plan land use designations as described above and in the plans.

Existing Zoning

Properties in the Specific Plan Area currently have the following zoning designations (see Figure 2-4 in Chapter 2, "Project Description"): Multi-Family Residential (R-3, R-3-R, and R-4-PUD), Limited Commercial (C-1-PUD), General Commercial (C-2 and C-2-PUD), Industrial (M-1), Heavy Industrial (M-2), and Transportation Corridor (TC).

Residential Zones

Multi-Unit Dwelling Zone (R-3)

The purpose of the R-3 zone is to accommodate traditional types of apartments. This zone is located outside the central city, serving as a buffer along major streets and near shopping centers. It permits dwellings, community gardens, and limited commercial goods and services serving the surrounding neighborhood. The maximum height is 35 feet. The maximum density is 30 dwelling units per net acre. The maximum lot coverage is 50 percent. The minimum lot size is 2,000 square feet, and the minimum lot depth is 80 feet.

Multi-Unit Dwelling Planned Unit Development Zone (R-4-PUD)

The purpose of the R-4 zone is to accommodate higher-density development in the central city, along major commercial corridors, and in areas near major institutions and public transit facilities. It permits dwellings, institutions, and limited commercial goods and services serving the surrounding neighborhood. The maximum height is 45 feet. The maximum density is 60 dwelling units per net acre. The maximum lot coverage is 60 percent. The minimum lot size is 2,000 square feet, and the minimum lot depth is 80 feet.

The purpose of the Planned Unit Development, which applies to The Mill at Broadway, is to provide for greater flexibility in the design of integrated developments than otherwise possible through strict application of zoning regulations. It is the intent of Planned Unit Development to encourage the design of well-planned facilities that offer a variety of housing or other land uses through creative and imaginative planning.

Commercial Zones

Limited Commercial Planned Unit Development Zone (C-1-PUD)

The purpose of the C-1 zone is to provide for certain offices, retail stores, and commercial service establishments that are compatible with residential developments. This zone is intended to be applied to small lots that are surrounded by a residential neighborhood. The maximum height is 35 feet. The maximum density is 30 dwelling units per net acre. As noted above, the Planned Unit Development designation, which applied to The Mill at Broadway, provides for greater flexibility in the design of integrated developments than otherwise possible through strict application of zoning regulations.

General Commercial Zone (C-2)

The purpose of the C-2 zone is to provide for the sale of goods; the performance of services, including repair facilities; office uses; dwellings; small wholesale stores or distributors; and limited processing and packaging.

General Commercial Planned Unit Development Zone (C-2-PUD)

The purpose of the C-2 zone is to provide for the sale of goods; the performance of services, including repair facilities; office uses; dwellings; small wholesale stores or distributors; and limited processing and packaging. Portions of this zone within the Specific Plan Area, as they pertain to The Mill at Broadway, include the Planned Unit Development suffix.

Industrial Zones

Light Industrial Zone (M-1)

The purpose of the M-1 zone is to permit the manufacture or treatment of goods. The maximum height is 70 feet. There is no maximum density.

Heavy Industrial (M-2)

The purpose of the M-2 zone is to permit the manufacture or treatment of goods. The maximum height is 70 feet. There is no maximum density.

Other Zones

Transportation Corridor (TC)

The purpose of the TC zone is to regulate land uses within, above, and below public agency transportation corridors to ensure that development is consistent with the 2035 General Plan, and to provide uniform standards for the development of ground rights and air rights within the corridor.

Proposed Zoning

Under the proposed project, the Specific Plan Area would retain the existing zoning designations described above and introduce two new residential designations: R-3A and R-4A:

- **Multi-Unit Dwelling Zone (R-3A)**: The purpose of the R-3A zone is to accommodate higher-density development in the central city, along major commercial corridors, and in areas near major institutions and public transit facilities. The maximum height is 35 feet. The maximum density is 36 dwelling units per net acre. The maximum lot coverage is 60 percent. The minimum lot size is 2,000 square feet.
- **Multi-Unit Dwelling Zone (R-4A)**: The purpose of the R-4A zone is to accommodate higher-density development in the central city, along major commercial corridors, and in areas near major institutions and public transit facilities. It permits dwellings, institutions, and limited commercial goods and services serving the surrounding neighborhood. The maximum height is 75 feet. The maximum density is 110 dwelling units per net acre. The maximum lot coverage is 70 percent. The minimum lot size is 3,200 square feet. The maximum lot size is 80,000 square feet. The minimum lot depth is 80 feet. The maximum lot depth is 160 feet.

Zoning in the Specific Plan Area would be changed as follows:

- Industrial zoning in the West Broadway Gateway and Industrial subareas would be rezoned as C-2.
- R-3 zoning for the triangular parcel of City-owned land north of Front Street would be rezoned as C-2.
- Land uses in the Alder Grove subarea would be rezoned from R-3 to R-3A and C-2.
- Planned Phase 5 of The Mill at Broadway would be rezoned from R-3 and M-1 to R-4A and C-1-PUD.

The zoning designations proposed for the Specific Plan Area are shown in Figure 2-14. The existing and proposed zoning designations in the area are compared in Table 2-5.

3.2.3 Land Use Evaluation

This section evaluates the proposed project for compatibility with existing and planned adjacent land uses and for consistency with adopted plans, policies, and zoning designations. Physical environmental impacts resulting from implementation of the WBSP are discussed in the applicable environmental resource sections in this EIR. This section differs from impact discussions in that only compatibility and consistency issues are discussed, as opposed to environmental impacts and mitigation measures. This discussion complies with Section 15125(d) of the State CEQA Guidelines, which requires EIRs to discuss inconsistencies with general plans and regional plans as part of the environmental setting.

COMPATIBILITY WITH EXISTING AND PLANNED ADJACENT LAND USES

As described above and in Chapter 2, “Project Description,” the proposed WBSP anticipates construction and operation of new development (new buildings and new uses) combined with intensification of existing buildings and occupancy of currently vacant parcels or buildings. Implementation of the WBSP could result in the following level of development within the Specific Plan Area:

- 4,900 gross dwelling units (including a net increase of 3,787 units under the WBSP plus 1,113 existing units) under both the proposed project and Scenario B option,
- 429,220 gross square feet of commercial/industrial building area under the proposed project (a net decrease of 10,775 square feet from the 439,995 square feet of existing commercial/industrial building area) and 389,219 gross square feet under the Scenario B option (a net decrease of 50,776 square feet from the existing square footage within the Specific Plan Area),
- 162,800 gross square feet of public/park/recreation building area under the proposed project (42,500 square feet under the WBSP plus the 120,300 square feet of existing public/park/recreation building area) and 147,800 square feet under the Scenario B option (27,500 square feet under the WBSP plus the existing square footage), and
- 79.5 acres of park/open space area under both the proposed project and the Scenario B option (16.8 acres under the WBSP plus 62.7 acres of existing park/open space area).

Although the WBSP would allow for increased opportunities for development, it is anticipated that the actual amount of development that would occur over the next 20 years would be generally consistent with what has been previously assumed to occur under the 2035 General Plan. As discussed above, the Specific Plan Area is a developed, urban environment surrounded on all sides by existing urban areas and areas planned for increased urban development. Implementing the WBSP would result in gradual new development combined with intensification of existing buildings and occupancy of currently vacant parcels or buildings. This new development would include uses, intensities, and densities that are similar to those that currently exist in the Specific Plan Area. Although implementation of the WBSP would result in physical environmental effects to existing and planned adjacent land uses (and that are addressed in the environmental resource sections of this EIR), the proposed WBSP would not allow for any new urban uses that would be incompatible with similar uses in the Specific Plan Area or adjacent urban neighborhoods and communities. New urban development that would occur with implementation of the WBSP would reinforce and support existing land use patterns and would not be incompatible with existing and planned adjacent land uses.

CONSISTENCY WITH ADOPTED PLANS, POLICIES, AND ZONING

Sacramento Region Blueprint and MTP/SCS

As described above, the goals of the 2016 MTP/SCS are to link land use and transportation facilities and programs in a way that provides long-term environmental and social benefits, including shortened commute times, reduced traffic congestion, less dependence on automobiles, improved air quality, reduced GHG emissions, and housing choices more aligned with the changing demographic of the Sacramento region. Although the MTP/SCS is not a land use plan, its success is based on certain assumptions about land use and development. SACOG has begun its quadrennial update of the MTP/SCS (scheduled for adoption in 2020) and will work with the City to determine whether there is a need to update the projections for the downtown area, including the Specific Plan Area for the next

MTP/SCS. In addition, the MTP/SCS includes significant transportation infrastructure in this area, including the Broadway Bridge and the Downtown/Riverfront Streetcar project.

The proposed WBSP would provide for development of dense residential and nonresidential uses in a location near several bus routes. In addition, the project's development of mixed-use residential and commercial neighborhood areas, walkable street grids, and bike facilities would reduce reliance on automobiles for transportation. Development under the proposed WBSP would be consistent with the land use, density, and intensity of development anticipated in the 2016 MTP/SCS. Although the MTP/SCS is a transportation plan, not a land use plan, and "consistency" of a land use project is determined by SACOG, the proposed WBSP is consistent with the goals established in the 2016 MTP/SCS and would promote the ability of SACOG and the region to achieve those goals.

City of Sacramento 2035 General Plan

The WBSP is designed to facilitate future development in the city and serve as a bridge between 2035 General Plan and the Land Park and Central City Community Plans, customizing the planning process and land use regulations to the unique characteristics of the Specific Plan Area. Under the proposed WBSP, the Specific Plan Area would retain the existing land use designations as described in the 2035 General Plan. The original zoning districts in the area also would be retained, although two multiunit residential zoning districts would be added. With the changes to zoning, the proposed WBSP would include modifications to allowable maximum heights, maximum densities, and other uses in certain portions of the Specific Plan Area.

The WBSP would support and further existing general plan policies by encouraging the development of vacant or underused parcels within the existing urban fabric. It also would provide expanded opportunities for access to multimodal transportation options by providing for the enhancement of the pedestrian, bicycle, and transit networks throughout the Specific Plan Area. In addition, the WBSP provides policies to encourage development of neighborhood amenities, such as grocery stores, neighborhood-serving retail, and parks and open space.

The proposed WBSP allows for increased opportunities for development in the Specific Plan Area, and it is anticipated that the actual amount of development that would occur over the next 20 years would be consistent with what is assumed to occur under the 2035 General Plan. All development projects, public improvements, and related activities that would occur with implementation of the WBSP would be required to be consistent with the 2035 General Plan. Consequently, the proposed WBSP would be consistent with the goals and policies of the City of Sacramento 2035 General Plan.

Land Park and Central City Community Plans

The Land Park Community Plan land use designations for the Specific Plan Area are Traditional Neighborhood High Density, Urban Neighborhood Medium Density, Public/Quasi-Public, and Parks and Recreation. The Central City Community Plan land use designations for the Specific Plan Area are Traditional Neighborhood High Density, Urban Corridor Low, Public/Quasi-Public, and Parks and Recreation.

As discussed above, the WBSP is designed to facilitate future development in the city and serve as a bridge between 2035 General Plan and the Land Park and Central City Community Plans, customizing the planning process and land use regulations to the unique characteristics of the Specific Plan Area. Under the proposed WBSP, the Specific Plan Area would retain the existing land use designations as described in the Land Park and Central City Community Plans. Thus, the implementation of the proposed WBSP would be consistent with the goals and policies of these plans.

3.3 POPULATION AND HOUSING

The evaluation presented in this section was developed based on project-specific features and data provided by the U.S. Census Bureau's American Fact Finder, California Department of Finance (DOF) population and housing estimates, SACOG's 2013–2021 Regional Housing Needs Assessment, the City of Sacramento 2035 General Plan, and the City of Sacramento 2035 General Plan Master EIR.

3.3.1 Environmental Setting

POPULATION

Regional Population

The counties that make up the SACOG and the greater Sacramento region—El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties—have experienced steady growth over the past 19 years (Table 3-1). The regional population increased by nearly 31 percent between 2000 and 2019, from 1,936,006 in 2000, to 2,316,019 in 2010, and to 2,532,700 in 2019. SACOG predicts the regional population to increase to 2,476,637 by 2020 and 3,078,772 by 2036 (SACOG 2016b).

Table 3-1 Population and Housing Trends, 2000–2019

	2000	2010	2019	Change 2000–2019	Percent Change 2000–2019
Sacramento Region					
Population	1,936,006	2,316,019	2,532,700	596,694	30.8
Housing units	765,936	932,140	974,711	208,775	27.3
City of Sacramento					
Population	407,018	466,488	508,172	101,154	24.9
Housing units	163,957	190,911	196,890	32,933	20.1

Sources: DOF 2012, 2019

City of Sacramento Population

Between 2000 and 2019, the city of Sacramento experienced a nearly 25-percent increase in population. According to DOF, the City's population was 407,018 in 2000, 466,488 in 2010, and 508,172 in 2019 (DOF 2012, 2019). The city's share of the total population in Sacramento County has remained at 33 percent between 2000 and 2019 (DOF 2012, 2019), whereas the city's share of the state population has increased slightly, from 1.2 percent in 2000 to 1.3 percent in 2019 (DOF 2012, 2019).

Sacramento Population Characteristics

The median age of Sacramento residents increased from 33 years in 2010 (DOF 2015) to 34.3 years in 2017 (U.S. Census 2017a). The median age in Sacramento has remained younger than the statewide median age, which was 35.2 in 2010 (DOF 2015) and rose to 36.1 in 2017 (U.S. Census 2017b). The percentage of residents over the age of 18 increased from 75.1 percent (350,367 people) in 2010 (DOF 2015) to 76.4 percent (374,226 people) in 2017 (U.S. Census 2017a). The percentage of seniors (ages 65 and older) between 2010 and 2017 increased from 10.6 percent to 12.2 percent (DOF 2015; U.S. Census 2017a). The aging of the population is a trend that is reflected statewide as the senior population increased from 11.4 percent in 2010 (DOF 2015) to 13.2 percent in 2017 (U.S. Census 2017b).

Specific Plan Area Population

The population of the Specific Plan Area in 2019, estimated using the *City of Sacramento Park Impact Fee Nexus Study Update* (New Economics & Advisory 2017), is 2,915.

HOUSING

Regional Housing Supply

Although the economic recession of 2008 caused a downturn in housing values and new home construction across the Sacramento region, in line with general statewide and national trends, the region has since experienced a period of economic growth. However, housing values across the region are considerably lower than those in the Bay Area. For this reason, Sacramento continues to remain a more affordable housing option for people working and commuting to other regions in northern California.

Approximately 5,979 housing units were added in the city of Sacramento between 2000 and 2019, a 3.1-percent increase (DOF 2019). The housing vacancy rate for Sacramento increased from approximately 8.5 percent in 2010 to 9.2 percent in 2019 (DOF 2019).

Housing Stock in Specific Plan Area

In 2019, the Specific Plan Area had 1,113 total housing units.

Jobs-Housing Relationship

Jobs-housing relationship is used to describe the ratio of residences to jobs in a particular community or geographic area. A low jobs-housing ratio (i.e., few jobs for the number of households in the area) indicates that many workers commute out of their residence area to their place of employment. In areas with a high jobs-housing ratio (i.e., many jobs for the number of households in the area), jobs need to be filled by workers from outside the area. A jobs-housing ratio of 1.0, which indicates that there is one job available per household, is considered to be in “balance.” Areas with high or low jobs-housing ratios are likely to generate longer home-to-work commutes.

When the affordability of housing and the incomes of jobs in the local market are reasonably in sync, and the quantity and proximity of housing units are proportionate to the quantity and proximity of jobs, most employees are able to work and reside in the same community. A more balanced relationship between jobs and housing can help reduce the number of vehicle trips and the overall number of vehicle miles traveled because commutes to employment are shorter. Such a reduction in the number of vehicle trips and vehicle miles traveled tends to reduce levels of air pollutant emissions (including GHG emissions) and create less vehicular congestion on area roadways and intersections.

It is important that the discussion of the jobs-housing relationship address whether housing in the community is affordable for local employees. The availability of an adequate housing supply that presents a range of price levels, including prices reasonably affordable for local employees, can potentially reduce the commute mileage between homes and work sites.

The SACOG MTP/SCS evaluated the change in jobs-housing ratio between 2008 (considered to be a somewhat normal year in the regional economy) and the ratio projected for 2036 (see Table 3-2). In the SACOG region, there were 969,838 jobs and 819,277 households in 2008, resulting in a jobs-housing ratio of 1.18. By 2036, the SACOG MTP/SCS projects there will be 1,327,279 jobs and 1,140,202 households, resulting in a jobs-housing ratio of 1.16.

Table 3-2 Jobs and Households, 2008 and 2036

	"Base" Jobs[1]		Total Jobs		Households		Jobs-Housing Ratio	
Geographic Area	2008	2036	2008	2036	2008	2036	2008	2036
SACOG region	NA	NA	969,838	1,327,279	819,277	1,140,202	1.18	1.16
Sacramento County	NA	NA	626,155	831,171	511,402	699,811	1.22	1.19
Sacramento Central Business District/Riverfront Employment Center	99,243	133,026	109,719	144,559	17,523	46,211	6.26	3.13

Notes: NA = not available.

[1] "Base" jobs exclude retail and food service.

Source: SACOG 2016a:220, 223

In 2008, Sacramento County had 626,155 jobs and 511,402 households, resulting in a jobs-housing ratio of 1.22. In 2036, the County is expected to have 831,171 jobs and 699,811 households, resulting in a jobs-housing ratio of 1.19.

In 2019, the city of Sacramento had an employment base of approximately 244,789 and 189,428 households (EDD 2019). The city's jobs/housing ratio of 1.29 reflects Sacramento's continuing role as the regional employment center and demonstrates that employees commute from other neighboring communities in the region to work in the city.

Homelessness

As described in the 2013–2021 Housing Element, the City maintains a commitment to combating homelessness throughout Sacramento through the provision of affordable housing and support services. To achieve these efforts, the City maintains a partnership with a variety of supporting organizations and agencies, such as the Sacramento County Department of Human Assistance, the Sacramento Housing and Redevelopment Agency (SHRA), Sacramento Steps Forward (SSF), and several local and resident-based groups. In a January 2015 count, SSF found a total of 5,570 homeless individuals living in Sacramento County, with 1,670 people living in transitional housing or shelters and 3,900 living in unsheltered conditions (SSF 2019).

The City's 2013–2021 Housing Element outlines policies aimed at addressing homelessness and collaborating with groups to better ensure improved housing conditions for the homeless population in Sacramento, including Policies H-3.1.1 (to provide extremely low-income housing), H-3.2.2 (to work with community-based nonprofit organizations that develop affordable housing and provide supportive services for special needs populations), H-3.2.3 (to work with SSF to implement and update the Ten-Year Plan to End Chronic Homelessness and the Continuum of Care to meet the needs of homeless families and individuals), H-3.2.5 (to continue to provide emergency shelters for the homeless population), and H-3.2.9 (to prioritize special needs housing, particularly for chronically homeless individuals). The Public Health and Safety Element of the City's 2035 General Plan also identifies Policy PHS 5.1.4: "The City shall work with public and private social service agencies to site facilities to address the human service needs of the city's homeless population."

In March 2017, Sacramento County Supervisor Phil Serna and City of Sacramento Mayor Darrell Steinberg announced their support for SHRA's recommendation that 1,755 housing units and vouchers be allocated to the homeless and those at risk of homelessness over the next 3 years. A total of 1,355 units and vouchers are guaranteed to be allocated to the homeless or those at risk of homelessness. SHRA also proposes to allocate an additional 300 units and 100 vouchers to the targeted populations by leveraging project-based vouchers to create additional units, as well as seek federal funding through the Performance Partnership Pilot for Disconnected Youth Program. With those additional units and

vouchers, Sacramento will be able to provide housing resources for 1,755 individuals experiencing or at risk of homelessness (City of Sacramento 2017).

3.3.2 Regulatory Setting

FEDERAL

No federal regulations that pertain to population and housing are applicable to the project.

STATE

California Housing Element Requirements

California law (Government Code Section 65580 et seq.) requires cities and counties to include as part of their general plans a housing element to address housing conditions and needs in the community. Initially, housing elements were prepared approximately every 5 years. In 2008, implementation of SB 375 extended the preparation cycle for housing elements to 8 years for most communities. The housing element must identify and analyze existing and projected housing needs and "make adequate provision for the existing and projected housing needs of all economic segments of the community" (Section 65583), among other requirements.

Regional Housing Needs Assessment

State law mandates that all cities and counties offer a portion of housing to accommodate the increasing needs of regional population growth. The statewide housing demand is determined by the California Department of Housing and Community Development, whereas local governments and councils of governments decide and manage their specific regional and jurisdictional housing needs and develop a regional housing needs assessment (RHNA).

In the greater Sacramento region, including the city of Sacramento, SACOG is responsible for developing and approving an RHNA and a regional housing needs plan (RHNP) every 8 years. These documents allocate a projected share of the number of housing units needed for every county and city in the six-county SACOG region. Housing needs are assessed for very low–income, low-income, moderate-income, and above moderate–income households. The RHNP, adopted by SACOG on September 20, 2012, identifies a total need of 24,101 housing units to be built in Sacramento over the period of January 1, 2013, to October 31, 2021, with a breakdown of 4,944 (20.5 percent) very low income units, 3,467 (14.4 percent) low income units, 4,482 (18.6 percent) moderate income units, and 11,208 (46.5 percent) above moderate units (SACOG 2012).

LOCAL

Sacramento Area Council of Governments

As described above, SACOG is an association of local governments that covers six counties in the Sacramento region. In addition to preparing the long-range transportation plan for the region, SACOG approves the distribution of affordable housing in the region through its RHNP and assists in planning for transit, bicycle network, clean air, and airport land uses.

City of Sacramento 2035 General Plan

Housing Element

The Housing Element, part of the City of Sacramento 2035 General Plan, sets forth the policies and programs to address the housing needs for all Sacramento households. State law (Government Code Sections 65580–65589.8) requires that every city and county in California adopt a Housing Element, subject to state approval, as part of its general plan. The City adopted the 2013–2021 Housing Element on December 17, 2013.

The Housing Element assumes that new growth would occur and accounts for an influx of new residents as a result of land use changes. It projects that the city needs to add approximately 24,101 housing units by 2021, consistent with the SACOG RHNP (8,411 units of which are for low-income and very low–income households). In addition, the Housing Element estimates that the population in Sacramento will increase from 470,437 in 2012 to 528,866 by 2020 and to 640,381 by 2035 (City of Sacramento 2013:Figure H 3-1).

The Housing Element presents 2008 population data and 2020 and 2035 population projections by community plan area for the city of Sacramento. As noted in Chapter 2, the Specific Plan Area includes portions of both the Central City and Land Park community plan areas. With respect to the Central City Community Plan area, population is expected to grow by 53 percent, from 71,436 in 2020 to 109,312 in 2035 (City of Sacramento 2013:Table H 3-3). Within the Land Park Community Plan area, population is expect to increase from 34,304 to 37,905 in 2035 (City of Sacramento 2013:Table H 3-3).

The Housing Element also anticipates substantial growth in employment in the Central City Community Plan area. By 2020, the Central City is projected to experience the greatest increase in employment of all the community plan areas in Sacramento, adding 6,642 jobs from 2008 to 2020 (for a total of 121,450 jobs). From 2020 to 2035, the Central City is projected to experience another substantial increase in employment, adding 31,386 jobs (for a total of 152,836 jobs) (City of Sacramento 2013:Table H 3-9). Within the Land Park Community Plan area, employment is anticipated to grow from 12,997 in 2020 to 13,694 by 2035, an increase of 831 jobs (City of Sacramento 2013:Table H 3-9).

The following goals and policies from the adopted 2013–2021 Housing Element relate to new development and are applicable to the WBSP:

GOAL H-1.2: Housing Diversity. Provide a variety of quality housing types to encourage neighborhood stability.

- **Policy H-1.2.1: Variety of Housing**. The City shall encourage the development and revitalization of neighborhoods that include a variety of housing tenure, size and types, such as second units, carriage homes, lofts, live-work spaces, cottages, and manufactured/modular housing.

GOAL H-1.3: Balanced Communities. Promote racial, economic, and demographic integration in new and existing neighborhoods.

- **Policy H-1.3.2: Economic Integration**. The City shall consider the economic integration of neighborhoods when financing new multifamily affordable housing projects.
- **Policy H-1.3.4: A Range of Housing Opportunities**. The City shall encourage a range of housing opportunities for all segments of the community.

- **Policy H-1.3.5: Housing Type Distribution**. The City shall promote an equitable distribution of housing types for all income groups throughout the city and promote mixed income neighborhoods rather than creating concentrations of below-market-rate housing in certain areas.
- **Policy H-1.3.6: Asset Building Programs**. The City shall support asset building programs, including those administered by the Housing Authority, for lower income residents especially in City or SHRA funded multifamily developments.

GOAL H-2.2: Development. Assist in creating housing to meet current and future needs.

- **Policy H-2.2.1: Quality Infill Development**. The City shall promote quality residential infill development by maintaining and implementing flexible development standards.
- **Policy H-2.2.2: Financial Tools to Diversify Residential Infill Development**. To the extent resources are available, the City shall use financial tools to diversify market developments with affordable units, especially in infill areas.
- **Policy H-2.2.3: Offsetting Development Costs for Affordable Housing**. The City shall defer fees to Certificate of Occupancy (COO) to help offset development costs for affordable housing and will offer other financial incentives including, but not limited to, water development fee waivers and sewer credits.
- **Policy H-2.2.4: Funding for Affordable Housing**. The City shall pursue and maximize the use of all appropriate state, federal, local and private funding for the development, preservation, and rehabilitation of housing affordable for extremely low-, very low-, low-, and moderate-income households, while maintaining economic competitiveness in the region.
- **Policy H-2.2.5: Review and Reduce Fees for Affordable Housing**. The City shall work with affordable housing developers as well as other agencies and districts to review and reduce applicable processing and development impact fees for very low- and low-income housing units.
- **Policy H-2.2.7: Suburban Infill and Secondary Units**. The City shall continue to support efforts to provide more varied housing opportunities in existing suburban neighborhoods through infill and intensification on existing available sites, by allowing secondary units on single-family lots, and allowing for additional development on excessively large lots.

Land Park Community Plan

The Land Park Community Plan, adopted on March 3, 2015, is a guiding document in the City of Sacramento 2035 General Plan that provides guidance for the Land Park Community Plan area. However, it currently identifies no policies. Policies for this plan area will be developed when a future community planning process is undertaken.

Central City Community Plan

The Central City Community Plan, first adopted in 1980 and most recently readopted on March 3, 2015, is a guiding document in the City of Sacramento 2035 General Plan that provides guidance for the Central City Community Plan area. The following policy from the adopted plan relates to new development and is applicable to the WBSP:

- **Policy CC.H 1.1: Mixed-Use Buildings**. The City shall provide the opportunity for mixture of housing with other uses in the same building or on the same site at selected locations to capitalize on the advantages of close-in living.

Consistent with the above housing policies found in the 2013–2021 Housing Element and Central City Community Plan, the proposed WBSP would accommodate a variety of mixed-use buildings, containing a variety of densities and intensities, to promote mixed-use structures in the Specific Plan area. Additionally, flexible zoning would allow for development of a wide variety of mixed uses, including businesses and amenities designed to serve the neighborhood residents.

Mixed-Income Ordinance

Sacramento City Code Chapter 17.712 and Section 17.808.260 were adopted on September 1, 2015, to establish additional requirements for the provision of affordable housing across Sacramento. In particular, Section 17.712.030 requires all owners of residential projects not exceeding 100 gross acres in size to pay a housing impact fee on all newly constructed market-rate housing units. It is anticipated that this provision would apply to all development in the Specific Plan Area.

For projects exceeding 100 gross acres, owners are required to pay the same housing impact fee but also create a mixed-income housing strategy demonstrating the ways in which the project would provide housing for a variety of incomes and family types consistent with the 2013–2021 Housing Element. The owner must obtain approval for the strategy from the city council and from the planning director.

3.3.3 Proposed WBSP Evaluation

PROPOSED WBSP POPULATION AND HOUSING

It is anticipated that up to 3,787 new housing units, including 518 units that have been approved but not yet constructed, would be built in the Specific Plan Area by 2035. To determine the estimated population increase that would result from implementation of the proposed WBSP, this analysis assumes an average household size of 1.8 persons per household in the Central City and 2.75 persons for the households in the Specific Plan Area located outside the Central City (New Economics & Advisory 2017). This average household size is calculated based on the number of people living in households, divided by the number of occupied housing units. Households in the Specific Plan Area tend to be smaller than those of the city of Sacramento as a whole. Using this factor, the projected population increase associated with development under the proposed WBSP would be 8,959 persons, including 1,425 people associated with the 518 approved but unbuilt housing units. As discussed earlier in this section, population increases and decreases are not, in and of themselves, considered physical environmental effects. Physical environmental effects that would be a result of population growth in the Specific Plan Area are examined in the appropriate environmental resource sections of this EIR.

PROPOSED WBSP EMPLOYMENT

It is anticipated that the extent of commercial/industrial building area in the Specific Plan Area would be reduced by 10,775 square feet under the proposed project and by 50,776 square feet under the Scenario B option. Public/park/recreation building area would increase by 42,500 square feet under the proposed project and by 27,500 square feet under the Scenario B option. Development of these uses in the area would result in an estimated 1,073 jobs under the proposed project and 973 jobs under the Scenario B option. These jobs would be in a variety of employment sectors, including commercial retail and entertainment, as well as neighborhood services.

PROPOSED WBSP AFFORDABLE HOUSING

The 2013–2021 Housing Element identifies goals and policies designed to aid in the development, improvement, and maintenance of housing across the city of Sacramento. The City believes that diversifying the current housing stock and creating a range of alternative housing options are major components in establishing strengthened neighborhoods. The City has identified several areas where rehabilitation can occur to promote sustainability in the existing housing stock. The WBSP would accommodate a diverse range of market-rate and affordable housing options and would also provide for a variety of housing types of varying densities and tenures to cater to the city's diverse housing demands.

PROPOSED WBSP JOBS-HOUSING RELATIONSHIP

As described above, it is anticipated that up to 3,787 new housing units could be built in the Specific Plan Area by 2035, for a total of 4,900 units, and development of the nonresidential uses in the Specific Plan Area could result in an estimated 1,073 jobs under the proposed project and 973 jobs under the Scenario B option. On the basis of these housing unit and employment estimates, the jobs-housing ratio under the proposed WBSP would be 0.28.

The 2035 General Plan anticipates that the city of Sacramento's employment base in 2035 would be 386,215, with a total of 260,699 residential units, which would result in a jobs-housing ratio of 1.48 (City of Sacramento 2014:3-10). Consequently, implementation of the WBSP would improve the projected jobs-housing ratio by increasing the number of housing units per job in the city over the next 20 years. In addition, and over time, several factors, including recent demographic trends and ongoing housing and development patterns, would likely result in a more balanced ratio of jobs and housing in the city, along with a reduction in vehicle trips and associated pollutant emissions and congestion on area roadways and intersections (City of Sacramento 2014:3-10). Major infill projects, including the Railyards and Township 9 developments, as well as recently approved loft, condominium, and single-family residential projects in the Central Business District and Midtown neighborhoods, provide a wide range of housing types, as well as housing and employment centers close to transit, bike lanes, and the network of sidewalks.

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4 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

APPROACH TO THE ENVIRONMENTAL ANALYSIS

Chapter 4 of this draft environmental impact report (Draft EIR) evaluates the potential environmental impacts associated with implementation—construction and operation-- of the proposed West Broadway Specific Plan (WBSP) by the City of Sacramento. This chapter is divided into sections by environmental resource category; each section is organized to provide an integrated discussion of the existing environmental conditions (including regulatory setting and environmental setting), potential environmental effects (including direct and indirect impacts as needed), and measures to reduce significant effects, where feasible. These sections also present an analysis of the WBSP's impacts considered together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the State California Environmental Quality Act (CEQA) Guidelines.

Chapter 5, "Other CEQA Sections," includes an analysis of the project's growth-inducing impacts, as required by Section 21100(b)(5) of CEQA. Chapter 6, "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 State CEQA Guidelines.

As required by CEQA (State CEQA Guidelines (California Code of Regulations [CCR] Section 15126.2)), this Draft EIR identifies and focuses on the significant direct and indirect environmental effects of the project. Short-term effects are generally those associated with construction, and long-term effects are generally those associated with operation of the project. This chapter addresses the environmental setting, environmental impacts and mitigation measures associated with the project in relation to the following resource topics:

- Section 4.1, Aesthetics, Light, and Glare;
- Section 4.2, Air Quality;
- Section 4.3, Biological Resources;
- Section 4.4, Cultural Resources and Tribal Cultural Resources;
- Section 4.5, Energy;
- Section 4.6, Geology and Soils;
- Section 4.7, Greenhouse Gas Emissions and Climate Change;
- Section 4.8, Hazards and Hazardous Materials;
- Section 4.9, Hydrology and Water Quality;
- Section 4.10, Noise and Vibration;
- Section 4.11, Public Services and Recreation;
- Section 4.12, Transportation and Circulation; and

- Section 4.13, Utilities and Service Systems.

Sections 4.1 through 4.13 follow the same general format:

Regulatory Setting: This subsection presents information on the laws, regulations, plans, and policies that relate to the issue area being discussed. Regulations originating from the federal, State, and local levels are each discussed as appropriate.

Environmental Setting: This subsection presents the existing environmental conditions on the project site and in the surrounding area as appropriate, in accordance with State CEQA Guidelines Section 15125. The discussions of the environmental setting focus on information relevant to the issue under evaluation. The geography of the environmental setting area differs among resources, depending on the locations where impacts would be expected. For example, traffic impacts resulting from implementation of the WBSP are assessed for the regional roadway network, whereas cultural resource impacts are assessed for the Specific Plan Area only.

Environmental Impacts and Mitigation Measures: This subsection presents thresholds of significance and discusses potentially significant effects of the WBSP on the existing, in accordance with State CEQA Guidelines Section 15126.2. The methodology for impact analysis is described, including technical studies upon which the analyses rely. The thresholds of significance are defined and thresholds for which the project would have no impact are disclosed and dismissed from further evaluation. Project impacts and mitigation measures are numbered sequentially in each subsection (Impact 4.2-1, Impact 4.2-2, Impact 4.2-3, etc.). A summary impact statement precedes a more detailed discussion of the environmental impact. The discussion includes the analysis, rationale, and substantial evidence upon which conclusions are drawn. The determination of level of significance of the impact is defined in bold text. A “less-than-significant” impact is one that would not result in a substantial adverse change in the physical environment. A “potentially significant” impact or “significant” impact is one that would result in a substantial adverse change in the physical environment; both are treated the same under CEQA in terms of procedural requirements and the need to identify feasible mitigation. Mitigation measures are identified, as feasible, to avoid, minimize, rectify, reduce, or compensate for significant or potentially significant impacts, in accordance with the State CEQA Guidelines Section 15126.4. Unless otherwise noted, the mitigation measures presented are recommended in the EIR for consideration by the City to adopt as conditions of approval.

Where an existing law, regulation, or permit specifies mandatory and prescriptive actions about how to fulfill the regulatory requirement as part of the project definition, leaving little discretion in its implementation, and would avoid an impact or maintain it at a less-than-significant level, the environmental protection afforded by the regulation is considered before determining impact significance. Where existing laws or regulations specify a mandatory permit process for future projects, performance standards without prescriptive actions to accomplish them, or other requirements that allow substantial discretion in how the they are accomplished, or have a substantial compensatory component, the level of significance is determined before applying the influence of the regulatory requirements. In this circumstance, the impact would be potentially significant or significant, and the regulatory requirements would be included as a mitigation measure.

This subsection also describes whether mitigation measures would reduce project impacts to less-than-significant levels. If the measures are unable to reduce the impact sufficiently, it is considered a significant-and-unavoidable impact, and is identified as such in accordance with State CEQA Guidelines Section 15126.2(b). Significant-and-unavoidable impacts are also summarized in Chapter 5, “Other CEQA Sections.”

Cumulative Impacts: An analysis of cumulative impacts follows the project-specific impacts and mitigation measures evaluation in each section. A cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other past, present and reasonably foreseeable projects causing related impacts.

The beginning of the cumulative impact analysis in each technical section includes a description of the cumulative analysis methodology and the geographic or temporal context in which the cumulative impact is analyzed (e.g., the City of Sacramento, the Sacramento Valley Air Basin, other activity concurrent with project construction). In some instances, a project-specific impact may be considered less than significant, but when considered in conjunction with other cumulative projects or activities may be considered significant or potentially significant.

As noted above, where a cumulative impact is significant when compared to existing or baseline conditions, the analysis must address whether the project's contribution to the significant cumulative impact is "considerable." If the contribution of the project is considerable, then the EIR must identify potentially feasible measures that could avoid or reduce the magnitude of the project's contribution to a less-than-considerable level. If the project's contribution is not considerable, it is considered less than significant, and no mitigation of the project contribution is required.

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4.1 AESTHETICS, LIGHT, AND GLARE

This section provides a description of existing visual conditions, meaning the physical features that make up the visible landscape, in and near the West Broadway Specific Plan (WBSP) Specific Plan Area (Specific Plan Area) and an assessment of changes to those conditions that would occur from project implementation. The effects of the project on the visual environment are generally defined in terms of the project's physical characteristics and potential visibility, the extent to which the project's presence would change the perceived visual character and quality of the environment, and the expected level of sensitivity that the viewing public may have where the project would alter existing views. The "Analysis Methodology" discussion below provides further detail on the approach used in this evaluation.

The analyses included in this section were developed based on site visits and documented photographs, review of the proposed WBSP and policies, and information and policies provided in the City of Sacramento 2035 General Plan, the City of Sacramento 2035 General Plan Master Environmental Impact Report (EIR), the Central City Specific Plan (CCSP), and the CCSP EIR.

No comments related to aesthetics, light, or glare were received in response to the Notice of Preparation for this EIR.

4.1.1 Regulatory Setting

FEDERAL

Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act (16 U.S. Code 1271-1287) established a method for providing Federal protection for certain free-flowing rivers, preserving them and their immediate environments for the use and enjoyment of present and future generations. Eligible rivers can be designated as Wild River Areas, Scenic River Areas, or Recreational River Areas.

The Sacramento River as it passes by the Specific Plan Area is not designated under the Wild and Scenic Rivers Act.

STATE

California Scenic Highway Program

California's Scenic Highway Program (Streets and Highways Code, Section 260 et seq) was created by the Legislature in 1963 to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated.

According to the Caltrans list of designated scenic highways under the California Scenic Highway Program, there are no highway segments within the City of Sacramento that are designated scenic. The only officially designated state scenic highway near the City of Sacramento is California State Route 160 (SR 160), which is a designated scenic highway from the Contra Costa County line to the south limit of the City of Sacramento (Caltrans 2019). The Specific Plan Area is not visible from this portion of SR 160.

LOCAL

City of Sacramento 2035 General Plan

Land Use and Urban Design Element

The following policies of the Land Use and Urban Design Element of the 2035 General Plan are considered applicable to the WBSP and address both the visual character of the city, the relationship of visual issues to new development, and how such issues relate to the usability and sense of place.

GOAL LU 2.2: City of Rivers. Preserve and enhance Sacramento's riverfronts as signature features and destinations within the city and maximize riverfront access from adjoining neighborhoods to facilitate public enjoyment of this unique open space resource.

- **Policy LU 2.2.1: World-Class Rivers.** The City shall encourage development throughout the city to feature (e.g., access, building orientation, design) the Sacramento and American Rivers and shall develop a world-class system of riverfront parks and open spaces that provide a destination for visitors and respite from the urban setting for residents.
- **Policy LU 2.2.3: Improving River Development and Access.** The City shall require new development along the Sacramento and American Rivers to use the natural river environment as a key feature to guide the scale, design, and intensity of development, and to maximize visual and physical access to the rivers.

GOAL LU 2.3: City of Trees and Open Spaces. Maintain a multi-functional "green infrastructure" consisting of natural areas, open space, urban forest, and parkland, which serves as a defining physical feature of Sacramento, provides visitors and residents with access to open space and recreation, and is designed for environmental sustainability.

- **Policy LU 2.3.1: Open Space System.** The City shall strive to create a comprehensive and integrated system of parks, open space, and urban forests that frames and complements the city's urbanized areas.
- **Policy LU 2.3.2: Adjacent Development.** The City shall require that development adjacent to parks and open spaces complements and benefits from this proximity by:
  - Preserving physical and visual access;
  - Requiring development to front, rather than back, onto these areas;
  - Using single-loaded streets along the edge to define and accommodate public access;
  - Providing pedestrian and multi-use trails;
  - Augmenting non-accessible habitat areas with adjoining functional parkland; and
  - Extending streets perpendicular to parks and open space and not closing off visual and/or physical access with development.

GOAL LU 2.4: City of Distinctive and Memorable Places. Promote community design that produces a distinctive, high-quality built environment whose forms and character reflect Sacramento's unique historic, environmental, and architectural context, and create memorable places that enrich community life.

- **Policy LU 2.4.1: Unique Sense of Place.** The City shall promote quality site, architectural and landscape design that incorporates those qualities and characteristics that make Sacramento desirable and memorable including walkable blocks, distinctive parks and open spaces, tree-lined streets, and varied architectural styles.
- **Policy LU 2.4.2: Responsiveness to Context.** The City shall require building design that respects and responds to the local context, including use of local materials where feasible, responsiveness to Sacramento's climate, and consideration of cultural and historic context of Sacramento's neighborhoods and centers.
- **Policy LU 2.4.3: Enhanced City Gateways.** The City shall ensure that public improvements and private development work together to enhance the sense of entry at key gateways to the city.
- **Policy LU 2.4.4: Iconic Buildings.** The City shall encourage the development of iconic public and private buildings in key locations to create new landmarks and focal features that contribute to the city's structure and identity.
- **Policy LU 2.4.5: Distinctive Urban Skyline.** The City shall encourage the development of a distinctive urban skyline that reflects the vision of Sacramento with a prominent central core that contains the city's tallest buildings, complemented by smaller urban centers with lower-scale mid- and high-rise development.

GOAL LU 2.7: City Form and Structure. Require excellence in the design of the city's form and structure through development standards and clear design direction.

- **Policy LU 2.7.3: Transitions in Scale.** The City shall require that the scale and massing of new development in higher-density centers and corridors provide appropriate transitions in building height and bulk that are sensitive to the physical and visual character of adjoining neighborhoods that have lower development intensities and building heights.
- **Policy LU 2.7.4: Public Safety and Community Design.** The City shall promote design of neighborhoods, centers, streets, and public spaces that enhances public safety and discourages crime by providing street-fronting uses ("eyes on the street"), adequate lighting and sight lines, and features that cultivate a sense of community ownership.
- **Policy LU 2.7.5: Development along Freeways.** The City shall promote high-quality development character of buildings along freeway corridors and protect the public from the adverse effects of vehicle-generated air emissions, noise, and vibration, using such techniques as:
  - Requiring extensive landscaping and trees along the freeway fronting elevation
  - Establish a consistent building line, articulating and modulating building elevations and heights to create visual interest
  - Include design elements that reduce noise and provide for proper filtering, ventilation, and exhaust of vehicle air emissions
- **Policy LU 2.7.6: Walkable Blocks.** The City shall require new development and redevelopment projects to create walkable, pedestrian scaled blocks, publicly accessible mid-block and alley pedestrian routes where appropriate, and sidewalks appropriately scaled for the anticipated pedestrian use.

- **Policy LU 2.7.7: Buildings that Engage the Street.** The City shall require buildings to be oriented to and actively engage and complete the public realm through such features as building orientation, build-to and setback lines, façade articulation, ground-floor transparency, and location of parking.
- **Policy LU 2.7.8: Screening of Off-street Parking.** The City shall reduce the visual prominence of parking within the public realm by requiring most off-street parking to be located behind or within structures or otherwise fully or partially screened from public view.

GOAL LU 4.1: Neighborhoods. Promote the development and preservation of neighborhoods that provide a variety of housing types, densities, and designs and a mix of uses and services that address the diverse needs of Sacramento residents of all ages, socio-economic groups, and abilities.

- **Policy LU 4.1.3: Walkable Neighborhoods.** The City shall require the design and development of neighborhoods that are pedestrian friendly and include features such as short blocks/ broad and well-appointed sidewalks (e.g., lighting, landscaping, adequate width), tree-shaded streets, buildings that define and are oriented to adjacent streets and public spaces, limited driveway curb cuts, paseos and pedestrian lanes, alleys, traffic-calming features, convenient pedestrian street crossings, and access to transit.
- **Policy LU 4.1.4: Traditional Grid.** The City shall require all new neighborhoods to be designed with traditional grid block sizes.
- **Policy LU 4.1.7: Neighborhood Transitions.** The city shall provide for appropriate transitions between different land use and urban form designations along the alignment of alleys or rear lot lines and along street centerlines, in order to maintain consistent scale, form, and character on both sides of public streetscapes.
- **Policy LU 4.1.9: Neighborhood Street Trees.** The City shall encourage the strategic selection of street tree species to enhance neighborhood character and identity and preserve the health and diversity of the urban forest.

GOAL LU 4.3: Traditional Neighborhoods. Retain the pedestrian-scale, pre-automobile form, and lush urban forest that typifies traditional neighborhoods and contributes to their special sense of place.

- **Policy LU 4.3.1: Traditional Neighborhood Protection.** The City shall protect the pattern and character of Sacramento's unique traditional neighborhoods, including the street-grid pattern, architectural styles, tree canopy, and access to public transit, neighborhood services and amenities.

GOAL LU 4.4: Urban Neighborhoods. Promote vibrant, high-density, mixed-use urban neighborhoods with convenient access to employment, shopping, entertainment, transit, civic uses (e.g., school, park, place of assembly, library, or community center), and community-supportive facilities and services.

- **Policy LU 4.4.1: Well-Defined Street Forms.** The City shall require that new buildings in urban neighborhoods maintain a consistent setback from the public right-of-way in order to create a well-defined public sidewalk and street.
- **Policy LU 4.4.2: Building Orientation**. In buildings with nonresidential uses at street level, the City shall require that building facades and entrances directly face the adjoining street frontage and include a high proportion of transparent windows facing the street.

- **Policy LU 4.4.3: Building Design.** The City shall encourage sensitive design and site planning in urban neighborhoods that mitigates the scale of larger buildings through careful use of building massing, setbacks, façade articulation, fenestration, varied parapets and roof planes, and pedestrian-scaled architectural details.
- **Policy LU 4.4.4: Ample Public Realm.** The City shall require that higher-density urban neighborhoods include small public spaces and have broad tree-lined sidewalks furnished with appropriate pedestrian amenities that provide comfortable and attractive settings to accommodate high levels of pedestrian activity.

GOAL LU 9.1: Open Space, Parks, and Recreation. Protect open space for its recreational, agricultural, safety, and environmental value and provide adequate parks and open space areas throughout the City.

- **Policy LU 9.1.2: New Parks and Open Spaces.** The City shall ensure that sufficient parks, open space, water corridor parkways, and trails are planned throughout the city to ensure adequate facilities are available to existing and future residents.
- **Policy LU 9.1.4: Open Space Buffers.** The City shall use traditional, developed parks and employ innovative uses of open space to "soften" the edges between urban areas and the natural environment.

Urban Form Guidelines

Current City of Sacramento 2035 General Plan land use designations for the Specific Plan Area are Urban Neighborhood Medium, Traditional Neighborhood High, Urban Corridor Low, Public/Quasi Public, and Parks. The 2035 General Plan includes Urban Form Guidelines for Urban Neighborhood and Traditional Neighborhood as presented below:

Urban Neighborhood

1. Buildings establishing a consistent setback from street that produces a pleasing definition to the public right-of-way (e.g., sidewalk, parkway strip, and street);
2. Building facades and entrances that directly addressing the street and have a high degree of transparency (i.e., numerous windows on street-fronting facades);
3. Building heights generally ranging from four to twenty-four stories for High Density;
4. Lot coverage generally not exceeding 80 percent;
5. An interconnected street system providing for traffic and route flexibility;
6. Vertical and horizontal integration of complementary nonresidential uses;
7. Off-street parking integrated into the buildings or placed in separate paring structures;
8. Minimal or no curb cuts along street fronts and facades;
9. Side or rear access to parking and service functions;
10. Broad sidewalks appointed with appropriate pedestrian amenities/facilities;
11. Street design that integrates pedestrian, bicycle, and vehicular use and incorporates traffic calming features and on-street parking;

12. Consistent planting of street trees providing shade and enhance a character and identity; and

13. Public parks and open space areas within walking distance of local residents.

Traditional Neighborhood

1. Predominantly single-family residential scale and including a mix of single-family units, second units, duplexes, triplexes, four-plexes, and apartments

2. Lot coverage generally not exceeding 70 percent

3. Building heights generally ranging from one to three stories for all traditional neighborhood designations

4. A highly interconnected street system facilitating flow of traffic, connectivity, and route flexibility

5. Pedestrian-scale blocks that are easy to navigate

6. A comprehensive, integrated, and interconnected pedestrian/bicycle system

7. Neighborhood services, transit, parks and schools within walking distance of local residents

8. Limited garages and curb cuts along the street frontage with rear, alley, and side garage access

9. Diverse architectural designs consistent with the neighborhood's forms and patterns

10. Street design balancing pedestrian and bicycle uses and safety with vehicular circulation

11. Traffic-calming measures, sidewalks with parkways (e.g., planting strips), and more attractive and functional pedestrian/bicycle facilities

12. Dense street tree canopy providing shade and enhanced neighborhood character and identity

Environmental Resources Element

The following policies of the Environmental Resources Element of the 2035 General Plan also address the visual character of the important features within the city, as well as the relationship of visual resources to new development.

- **Policy ER 7.1.1: Protect Scenic Views.** The City shall avoid or reduce substantial adverse effects of new development on views from public places to the Sacramento and American Rivers and adjacent greenways, landmarks, and the State Capitol along Capitol Mall.

- **Policy ER 7.1.2: Visually Complimentary Development.** The City shall require new development be located and designed to visually complement the natural environment/setting when near the Sacramento and American Rivers, and along streams.

- **Policy ER 7.1.3: Lighting.** The City shall minimize obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary, and requiring light for development to be directed downward to minimize spill-over onto adjacent properties and reduce vertical glare.

- **Policy ER 7.1.4: Reflective Glass.** The City shall prohibit new development from (1) using reflective glass that exceeds 50 percent of any building surface and on the bottom three floors, (2) using mirrored glass, (3) using black glass that exceeds 25 percent of any surface of a building, (4) using metal building materials that exceed 50 percent of any street-facing surface of a primarily residential building, and (5) using exposed concrete that exceeds 50 percent of any building.

- **Policy ER 7.1.5: Scenic Resources at River Crossings.** The City shall require the style, scale, massing, color, and lighting of new bridges to complement the natural and/or community setting. Design considerations for river crossings will include the degree to which bridges minimize obstruction of scenic views of the river and riparian areas from publicly accessible open space areas, including from the river, and enhance the scenic setting by incorporating design features that complement the surrounding area and/or provide high quality and visually interesting design.

Northwest Land Park Planned Unit Development

The Northwest Land Park Planned Unit Development (NWLP PUD) is located within the boundaries of the WBSP. The NWLP PUD Guidelines were approved by the City of Sacramento City Council on July 25, 2011. The NWLP PUD Guidelines are incorporated by reference in this EIR. Among the objectives for the infill development, the following objectives are relevant to aesthetics and visual resources:

- To incorporate public parks and open space into the project design in a manner that provides recreational opportunities for neighborhood residents and is aesthetically pleasing.
- To develop a residential neighborhood that will architecturally complement the existing established Land Park, Southside Park, Broadway, Midtown and Central City neighborhoods.

The NWLP PUD Chapter 2, “Land Use Framework”, contains development guidelines that address aesthetics including building orientation, parking lots siting, color palette for structures and architectural element), materials, and signage. The guidelines provide for a variety of architectural styles and an eclectic mix of building styles to create a distinct neighborhood district. Chapter 3, “Open Space Framework”, provides development guidelines and standards for open space, parks, a greenway corridor, and private courtyards. Chapter 4, “Transportation Development Guidelines”, addresses streetscape elements such as landscaping, streetlights, and street furniture. Chapter 5, “Landscape Framework”, provides landscape guidelines that address streetscaping landscaping standards, hardscape standards, and lighting and street furniture styles.

City of Sacramento Planning and Development Code (Title 17)

The City of Sacramento’s Planning and Development Code (Sacramento City Code Title 17) is intended “[t]o implement the city’s general plan through the adoption and administration of zoning laws, ordinances, rules, and regulations” (§17.100.010(B)). To achieve this outcome the Planning and Development Code:

- regulates the use of land, buildings, or other structures;
- regulates the location, height, and size of buildings or structures, yards, courts, and other open spaces, the amount of building coverage permitted in each zone, and population density; and
- regulates the physical characteristics of buildings, structures, and site development, including the location, height, and size of buildings and structures; yards, courts, and other open spaces; lot coverage; land use intensity through regulation of residential density and floor area ratios; and architectural and site design.

Site Plan and Design Review

Pursuant to Chapter 17.808 of the City Code, with specific and limited exemptions described below, development in the City is subject to site plan and design review. The intent of this process is to (1) ensure that the development is consistent with applicable plans and design guidelines; (2) is high quality and compatible with surrounding development; (3) is supported by adequate circulation, utility, and related infrastructure; (4) is water and energy efficient; and (5) avoids environmental effects to the

extent feasible. The aspects of design considered in the site plan and design review process include architectural design, site design, adequacy of streets and accessways for all modes of travel, energy consumption, protection of environmentally sensitive features, safety, noise, and other relevant considerations.

Pursuant to Chapter 17.808.160 of the City Code, the following development projects are exempt from the site plan and design review requirement: alterations to an existing building or structure that is not in a historic district and that does not substantially alter the exterior appearance of the building or structure, as determined by the director; an alteration to an existing site that does not significantly alter the functioning of the site with respect to traffic circulation, parking, infrastructure, and environmentally sensitive features, as determined by the director; secondary dwelling units; sidewalk cafes; convenience recycling facilities; and registered house plans (subject to site plan review, but not design review). For development projects located in a historic district or that involve a landmark, activities exempt from site plan and design review include repainting of surfaces that were originally painted when the color scheme is not a significant character-defining feature of the historic resource; routine nonabrasive cleaning and maintenance; and site plantings when plantings and landscape elements are not significant character-defining features of the historic resource.

Through the site plan and design review process, the City has the authority to approve or require deviations from design and development standards to respond to site- and project-specific considerations. Deviations are subject to review and approval of either the City Design Director or the City Planning and Design Commission, depending on the nature of the deviation. Depending on the nature of the proposal, site plan and design review may be conducted by staff, the City Design Director, or the Planning and Design Commission. The Planning and Design Commission review is required for certain large projects (more than 150 residential units or 125,000 square feet for non-residential or mixed-use projects), projects more than 60 feet in height, or where a deviation requires Commission review and approval. City Design Director review is required where a project is not in substantial compliance with applicable design guidelines or requests a deviation. For projects taking place in a historic district or related to an historic landmark, site plan and design review is undertaken by the Preservation Commission or the City Preservation Director, as appropriate. All other projects not requiring review by the respective Commission or Director are reviewed by City staff.

City of Sacramento Design Review Code

The City of Sacramento includes 14 design review districts where developments within those districts are subject to design review as outlined within the Design Review Code (Sacramento City Code Chapter 17.132). The northwest corner of the Specific Plan Area is within the southwestern corner of the Central City Special Planning District (City of Sacramento Zoning Code Chapter 17.444.150).

In accordance with the Code, development applications are reviewed to ensure that the desirability of adjacent and surrounding properties is enhanced; the benefits of occupancy of adjacent and surrounding properties are improved; the value of surrounding properties is increased; appropriate development of adjacent and surrounding properties is encouraged; and the maintenance and improvement of surrounding properties is encouraged, resulting in the enhancement of the health, safety, aesthetics, and general welfare of the inhabitants of the area and the inhabitants of the city at large. In addition to establishing design review guidelines for properties within design review districts, the Sacramento City Council can establish minimum design requirements applicable to development projects outside of design review districts (Sacramento City Code Section 17.132.180).

Multifamily Residential Design Principles

The City of Sacramento Design Principles (City of Sacramento August 2000) are for new multifamily projects (containing three or more units). These principles are intended to promote and protect the public health, safety and general welfare of the community by carrying out the following goals:

- Promotion of a positive environment for the residents of multifamily developments with sustained quality and adequate amenities.
- Compatibility of multi-family development with surrounding properties.
- Contribution to and enhancement of the character, value and livability of Sacramento's neighborhoods.
- Direct and safe pedestrian access to adjacent transit and activity center locations.
- Clear, consistent and specific objective guidelines to provide developers with a more timely, cost effective, and more certain review process.

Design Principles address site planning/orientation/setbacks; design of parking/garages/circulation/ entryways; open space/landscaping; lighting/security; accessory structures/infrastructure; fencing and walls; drainage/water quality; general architecture; and architectural elements/details.

Sacramento River Parkway Plan

The Sacramento River Parkway Plan (Parkway Plan) is a comprehensive plan for the Sacramento River Parkway adopted by the City of Sacramento in October 1997. The Parkway Plan area includes all land within 10 feet of the landside tow of the Sacramento River levee or the inland boundary of public land along the River, whichever is the most appropriate for land uses. The Parkway Plan contains specific goals and policies that address recreation, trails, public access, urban development, public safety, security, natural and cultural resources, erosion, and land use.

The primary policies of the Parkway Plan that are relevant to the aesthetic character of the Specific Plan Area are the Urban Development Policies, as noted below:

- **Policy D1:** The City shall ensure that all developments which take place within and adjacent to the Parkway will adhere to the intent and purpose of the Parkway Concept.
- **Policy D3:** Commercial and residential development within the Parkway, subject to the city's planning review process, shall be designed to visually blend with and be in scale with the surrounding riverine environment. Color, texture, style, height, width, and bulk should be considered in design.
- **Policy D4:** Commercial, office, residential, or residential structures within the Parkway should be built so as to not obscure the view of or public access to the River. All development within or immediately adjacent shall have linear lot coverage no greater than 60%.
- **Policy D5:** Proposed development within the Parkway should strive to create a visually appealing landscape along the river by incorporating, to the extent feasible, native or indigenous vegetation for landscaping consistent with the City's Plant List.
- **Policy D6:** All commercial development within the Parkway shall incorporate amenities that enhance the public's enjoyment of the river resources. The following are examples of possible amenities:

- Public promenades
- Public areas
- Parks
- Amphitheaters for public performances
- Museums or interpretive centers
- Bicycle paths.

City of Sacramento Tree Ordinance (Sacramento City Code 12.56, as amended)

A permit is required to perform regulated work on "City Trees" or "Private Protected Trees" (which includes trees formerly referred to as "Heritage Trees"). City trees are characterized as trees partially or completely located in a City park, on City owned property, or on a public right-of-way, including any street, road, sidewalk, park strip, mow strip or alley. Private protected trees are defined as trees designated to have special historical value, special environmental value, or significant community benefit, and is located on private property. Private protected trees are:

- All native trees at 12-inch diameter standard height (DSH)[1]. Native trees include: Coast, Interior, Valley and Blue Oaks, CA Sycamore and Buckeye.
- All trees at 32-inch DSH with an existing single family or duplex dwelling.
- All trees at 24-inch DSH on undeveloped land or any other type of property such as commercial, industrial, and apartments.

Tree permits required for discretionary projects under Title 17, are subject to the same notice, hearing, and appeal provisions applicable to the Title 17 discretionary permit. A tree replacement plan required for a project must provide for the replacement of trees at a ratio of one-inch DSH of tree replaced for each inch DSH of tree removed (1:1 ratio). Tree replacement options include on-site and off-site replacement; payment of an in-lieu fee; and credit for preservation of existing trees on the same property that are smaller than a private protected tree removed.

[1] Diameter at standard height (DSH), is a common method used for measuring trees. DSH refers to a tree's diameter measured at 4.5 feet (54 inches) above the ground.

4.1.2 Environmental Setting

VISUAL CHARACTER AND VISUAL RESOURCES

The Specific Plan Area is bounded on the west by the Sacramento River, on the north by Broadway and U.S. Highway 50 (U.S. 50)/Business 80, on the east by Muir Way and 5th Street, and on the south by Merkley Way and 4th Avenue. Interstate 5 (I-5) also traverses the Specific Plan Area, separating Miller Regional Park and the West Broadway Gateway subarea from the remainder of the Specific Plan Area. The visual character of the Specific Plan Area is varied; existing development consists of a mix of recreational, residential, industrial, and institutional land uses. In addition, some portions of the Specific Plan Area are in the process of being redeveloped and are transitioning from the previous industrial uses to more residential and recreational uses. The visual character and visual resources within each of the WBSP's subareas, as defined in Chapter 2, "Project Description," are described below. Figure 4.1-1 shows the location of the representative views referenced in the following discussion and shown in Figures 4.1-2 through 4.1-9.

Topography within the Specific Plan Area generally slopes gradually down from north to south, and a levee embankment slopes up on the east side of Miller Regional Park. The West Broadway Gateway subarea to the north of Miller Regional Park is occupied by fuel storage tanks and other industrial metal-constructed buildings.

Marina/Miller Regional Park Special Study Area

With respect to the Marina/Miller Regional Park Special Study Area, the central portion of Miller Regional Park is excavated to create the Sacramento Marina, which connects directly to the Sacramento River. The marina includes boat docks and covered mooring spaces, harbor master building, paved parking lots for boat owners, and a paved launching area and public restrooms located at the southern end of the Park. The Sacramento Southern Railroad tracks used by the Old Sacramento State Historical Park excursion train are located on the elevated embankment and levee along the east side of Miller Regional Park. The Sacramento River bicycle and recreation trail, which runs along the levee from Discovery Park to Captain's Table Marina, crosses Broadway and enters Miller Regional Park on the north and passes through Miller Regional Park on the parking lot and access road to the boat launch area, exiting the south end of the park to parallel the railroad tracks on the river levee.

Landscaping within Miller Regional Park consists of mature trees and limited areas of grass lawn adjacent to the river, boat owner parking lots, and along the access road to the boat launch parking lot. Natural riparian vegetation consisting of shrubs and large trees grows adjacent to the river on the west side of the park. To the east of the park and the railroad tracks, parcels between the railroad tracks and I-5 at the Front Street entrance to Miller Regional Park are currently developed with a metal building and horse paddock (used by City of Sacramento Police Department mounted patrol).

The visual character of the Marina and Miller Regional Park portion of the of the Specific Plan Area is defined by the park-like setting of mature trees, lawn and riparian vegetation with views of the Sacramento River intermixed with walkways, docks, and buildings associated with the Marina. The landscaping and trees serve to partially screen public views of the marina structures within the park. Views from within the park of the adjacent industrial land uses on the north side of the Park are partially screened by vegetation.

Source: Data adapted by Ascent Environmental in 2019

Figure 4.1-1 Photo Points

Source: Ascent Environmental 2018

Figure 4.1-2 View 1: Parking lot in Miller Regional Park near Marina

Source: Ascent Environmental 2018

Figure 4.1-3 View 2: Existing Structures Near Front Street at Entrance to Miller Regional Park

Source: Ascent Environmental 2018

Figure 4.1-4 View 3: Tank Farms at the West End of Broadway Near Entrance to Miller Regional Park

Source: Ascent Environmental 2018

Figure 4.1-5 View 4: View of Sacramento River from West Side of Miller Regional Park

Source: Ascent Environmental 2018

Figure 4.1-6 View 5: Recently Completed Apartment Development at the Mill at Broadway

Source: Ascent Environmental 2018

Figure 4.1.7 View 6: Alder Grove residential Development from Muir Way

Source: Ascent Environmental 2018

Figure 4.1-8 View 7: Street View on McClatchy Way in Marina Vista Subarea

Source: Ascent Environmental 2018

Figure 4.1-9 View 8: Residences Within Land Park Woods

For the most part, views within the park are pleasing, with landscaping, natural vegetation, and mature tree canopy, but structures associated with the marina and structures to the north and east, as well as the railroad tracks, detract from the scenic qualities within much of Miller Regional Park. The Mounted Unit Facility Stables for City of Sacramento Police Department are located along Front Street on the east side of the railroad tracks in Miller Regional park. These officers patrol the Miller Regional Park area on horseback.

On the west side of the park, somewhat intact views of the park and riparian vegetation and the adjacent Sacramento River are somewhat unique along the river in this area; these views could be considered to provide scenic vistas of and across the Sacramento River.

Mill at Broadway, School Sites, and Industrial Subareas

The Mill at Broadway, School Sites, and Industrial Subarea comprise the central and northwestern portions of the Specific Plan Area bounded by Broadway and US-50 on the north, I-5/US-50 ramps and the Sacramento River on the west, Alder Grove on the east, and McClatchy Way on the south.

The visual character of these subareas are marked by a contrast between new residential development on the west side of 5th Street that is defined by closely spaced, relatively dense, two and three-story apartments and condominiums (Figure 4.1-6), and existing industrial development on the east side of 5th Street. Newly installed landscaping adjacent to residential buildings consists of small areas of grass lawn and shrubs. Low profile streetlights are installed but no overhead utility lines are present in the residential areas. The area east of 5th Street is developed with light-industrial warehouse buildings and various storage and distribution structures. There is no landscaping next to the buildings and the area is predominantly covered with impervious paved surfaces and surface parking. Overhead utility wires are visible along the streets in the industrial areas. A park with a grass-covered playing field is associated with the schools, however, this area is not visible from the street. Large parking lots associated with the schools front on McClatchy Way, which detract from the visual character of the surrounding area. There are no unique visual resources or compelling vistas; therefore, no scenic vistas are associated with this area of the WBSP.

Alder Grove Subarea

The Alder Grove subarea is bounded by Broadway on the north, the Central Section on the west, and Muir Way on the east, and existing single-family residences and the Industrial subarea to the south. Alder Grove consists of a multi-family residential development that contains 360 units, which are a mix of single story and multi-story units constructed predominantly of brick. Units are widely spaced with lawn and mature trees throughout the development. A grocery store is located to the south of Alder Grove on the corner of Muir Way and McClatchy Way. The Sacramento Historic Cemetery, Masonic Lawn Cemetery and Odd Fellows Lawn Cemetery are located across Muir Way to the east of Alder Grove.

The visual character of this portion of the Specific Plan Area is dominated by the shaded streets and lawn areas surrounding the widely spaced residential structures, which create an open, uncrowded character despite the high-density residential development (Figure 4.1-7). The cemeteries to the east of Muir Way enhance the open character of the general area. While the landscaping, including the mature tree canopy are pleasing views, no visual elements within area present views of unique visual resources or compelling vistas; therefore, no scenic vistas are associated with this area of the WBSP.

Marina Vista and Land Park Woods

The Marina Vista and Land Park Woods subareas are located south of McClatchy Way, north of 4th Avenue, east of I-5, and west of 5th Street. This portion of the Specific Plan Area consists of a multi-family residential development that contains a total of 446 units that are mix of single story and multi-

story units. Units in the Marina Vista development are widely space with lawn and mature trees throughout the development as shown in Figure 4.1-8. The River Oaks (Marina Vista) Community Room is located in this area and has a park with playing fields associated with it, providing more open space near the residences. The Land Park Woods units are more closely spaced single-story structures that are connected by landscaped walkways and are surrounded by mature landscaping as shown in Figure 4.1-9. Overhead utility lines are visible along the streets within these residential areas.

The visual character of this portion of the Specific Plan Area is marked by the shaded streets and lawn areas; the wide spacing of the residential structures make for an open character despite the high-density residential development. No visual elements within area present views of unique visual resources or compelling vistas; therefore, no scenic vistas are associated with this area of the WBSP.

VISUAL CHARACTER OF THE SURROUNDING AREA

I-5 Freeway, Capitol City Freeway (U.S. 50/Business 80), and their interchanges dominate the visual character in the vicinity of the western and northern portions of the Specific Plan Area. The area north of the Specific Plan Area along Broadway is similar in character to the WBSP's Broadway frontage, which consists of low-rise buildings with businesses and industrial structures. Further east on Broadway, the character is more defined by O'Neil Park and the adjacent Sacramento City Fire Station #5 on the north side of the street, opposite Alder Grove.

The adjacent neighborhoods to the south of Alder Grove, and east of Marina Vista/Land Park Woods, consist of mainly single-family residences with mature landscaping and street trees. The Sacramento Historic Cemetery, Masonic Lawn Cemetery and Odd Fellows Lawn Cemetery are located across Muir Way to the east of Alder Grove. These cemeteries are landscaped with large mature trees and shrubs and have a park-like visual character.

LIGHT AND GLARE CONDITIONS

Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments; however, these lights have the potential to produce spillover light and glare, and if designed incorrectly, could be considered unattractive. Although nighttime light is a common feature of urban areas, spillover light can adversely affect light-sensitive uses, such as residential units at nighttime.

Ambient light levels or illumination is measured in foot-candles. Table 4.1-1 lists typical ambient illumination levels in foot-candles for exterior and interior lighting. "Horizontal" foot-candles measure light illumination on a horizontal surface, such as a sidewalk or parking lot; "vertical" foot-candles measure light illumination on a vertical surface.

Table 4.1-1 Typical Illumination Levels in Foot-Candles

Light Source	Foot-Candles
Starlight	0.0002
Moonlight	0.02
Street Lighting	0.6-1.6
Office Lighting	70-150
Direct Sunlight	6,000-10,000

Source: City of Sacramento 2014. *Sacramento 2035 General Plan Background Report*. Public Review Draft, August 2014. Table 6-13, p. 6-122.

Existing ambient light sources within the Specific Plan Area include nighttime lighting on buildings for security purposes and roadway lighting along 5th Street, 1st Avenue, and 3rd Street, and Broadway. Sports field lighting exists at O'Neil Park on the north side of Broadway, across from the Specific Plan Area, and is present on the Sacramento Redevelopment and Housing Agency (SHRA) owned sports fields in the Marina Vista neighborhood. The Specific Plan Area is generally darker along the southern boundary adjacent to the vacant field and the two schools. Additional ambient lighting in the project vicinity is generated from vehicle headlights and nearby light industrial, commercial, and residential buildings along 5th Street, McClatchy Way, and Broadway. Street lights are installed in the Mill at Broadway residential area.

Glare results when a light source directly in the field of vision is brighter than the eye can comfortably accept. Squinting or turning away from a light source is an indication of glare. The presence of a bright light in an otherwise dark setting may be distracting or annoying, referred to as discomfort glare, or it may diminish the ability to see other objects in the darkened environment, referred to as disability glare. Reflective glare, such as the reflected view of the sun from a window or mirrored surface, can be distracting during the day. Windows on commercial and office buildings located along 1st Avenue and 3rd Street are sources of some glare.

VIEWER EXPOSURE, AND VIEWER SENSITIVITY

Viewer sensitivity is considered in assessing the impacts of visual change. The sensitivity of the viewer or viewer concern is based on the visibility of visual resources in the landscape, proximity of the viewers to the resources, frequency and duration of the views, number of viewers, and the expectations of viewers and viewer groups. Viewer sensitivity is also affected by viewer activity, awareness and concerns in combination with numbers of viewers and duration of views. Visual sensitivity is generally considered higher for views that are observed by people engaged in recreational activities such as hiking or camping, and by residents of an area. Sensitivity is lower for people commuting to work or engaged in work activities. Viewer response is also based on locational context. Landscape features that are common in some areas, may have higher value in locations where these features are rare.

VIEWER GROUPS AND PUBLIC VIEWS

Public views are those that are experienced from publicly accessible vantage points. Most public views of and through the Specific Plan Area are from roadways that border or extend through the Specific Plan Area. Adjacent roadways include Broadway, Muir Way, McClatchy Way, Fifth Street, and freeways and freeway connector ramps to the north, in the west, and northwest portions of the Specific Plan Area (I-5/U.S.50/Business 80). Interior roadways include Vallejo Way, 3rd Street, 5th Street, McClatchy Way, 1st Avenue, and Crate Avenue and local streets interior to the residential areas (Alder Grove, Land Park Woods, and Marina Vista).

The masonry soundwall along the east side of I-5 blocks views of and from the southern portion of the Specific Plan Area (existing schools and residences). The Mill at Broadway subarea in the northern portion of the Specific Plan Area, east of I-5 is visible in the foreground from the connector ramp between northbound I-5 and eastbound Highway 50; foreground views from the Broadway offramp are more direct but freeway landscaping partially screens these views. Due to travel speeds, these views are brief for motorists and passengers in vehicles. The northern portion of the Specific Plan Area, along Broadway, is clearly visible in the foreground from the elevated connector ramp and is partially visible from the eastbound lanes of the I-5/Capitol City Freeway in the middleground. The dominant feature in

these views from the freeways and offramp is the existing television station tower. However, due to travel speeds and driver focus these views are not of long duration.

The western portion of the Specific Plan Area (Miller Regional Park and West Broadway Gateway) is clearly visible to motorists and passengers in cars making the transition on eastbound Business 80/Pioneer Bridge to southbound I-5 and from westbound Capitol City Freeway to southbound I-5. These views are partially screened by mature trees and are fleeting due to travel speeds and driver focus. Dominant features in these views are the fuel storage tanks in the West Broadway Gateway and the Sacramento River from the Pioneer Bridge. Views of Miller Regional Park from southbound I-5 are almost entirely blocked by vegetation.

Views of the Specific Plan Area from the Sacramento River are of the Gateway Subarea and Miller Regional Park. These views are partially screened by riparian vegetation along the river levee. Viewing groups include recreational users of the river, people boating for pleasure, fisherman in boats and standing along the river's edge, water skiers and jet skiers, and excursion boat passengers. Duration of views vary from short and peripheral for those engaged in waterskiing and high-speed water sports, to lengthy and focused for sightseers on private boats and commercial excursion boats.

Views of the east and southeast sides of the Specific Plan Area, from Muir Way and 5th Street are dominated by low rise apartments with landscaping consisting of lawns, shrubs and a mature tree canopy. Views into the Specific Plan Area from Merkeley Way are blocked by the back walls of industrial buildings that are constructed up to the edge of the sidewalk. Viewing groups are motorists and passengers in cars on the adjacent streets, pedestrians and bicyclists traveling along the streets, many of which would be residents of the area.

Table 4.1-2 summarizes public views, viewer groups, viewer sensitivity, for the four WBSP subareas described above.

Table 4.1-2 Public Views of the Specific Plan Area and Surrounding Area, Viewer Groups, and Viewer Sensitivity

WBSP Subarea or Adjacent Areas	Public Views	Viewer Groups	View Duration	Viewer Sensitivity
West Broadway Gateway subarea and Miller Regional Park	West end of Broadway – views of storage tanks and industrial structures. Railroad – views of park, marina facilities, parking lots, launch ramp, and trees; views of industrial fuel storage tanks, industrial structures, horse paddock on the east side of the tracks. Bike trail through Gateway subarea and Miller Regional Park – industrial fuel storage tanks, industrial structures, marina, parking lots, railroad embankment, launch ramp	Park users entering on Broadway and entering Miller Regional Park on Front Street, State Park Excursion Train passengers, bicyclists/runners/walkers using Sacramento River recreation trail, park users within park. Boaters using the marina	moderate for motorists, high for park users/ recreationists	High
The Mill at Broadway and Industrial	Broadway and other streets immediately adjacent to and passing through the area. I-5/U.S. 50 connector ramps.	Public driving or walking on adjacent streets, primarily residents of the area commuters	Low to moderate depending on speed and focus	Low
Alder Grove	Adjacent streets including Broadway and Muir Way. O'Neill Park on the north side of Broadway.	Public driving or walking on adjacent streets, including residents of the area, people en route to Miller Regional Park, recreationists at O'Neill Park.	Low to moderate	Moderate

WBSP Subarea or Adjacent Areas	Public Views	Viewer Groups	View Duration	Viewer Sensitivity
Marina Vista and Land Park Woods Subarea	Adjacent streets,	Public driving or walking on adjacent streets, primarily residents of the area.	Low to moderate	Moderate
Sacramento River	River banks and river.	Recreational users of the river – fishermen at river edges or boating, recreational boaters, water skiers or jet skiers, excursion boat passengers	Low for motorized sports participants to high for sightseers on private boats or excursion boats	Low for motorized sports participants, high for sightseers

4.1.3 Environmental Impacts and Mitigation Measures

METHODOLOGY AND ASSUMPTIONS

The analysis of aesthetics is a qualitative analysis that compares the existing built and natural environment to the future built and natural environment and addresses the visual changes that would result from implementation of the proposed WBSP. Key view corridors were examined, and existing views to and from the Specific Plan Area were compared to those that would be expected to occur in the future under the proposed WBSP. In addition, the changes proposed in the WBSP Specific Plan Area were evaluated in the context of adopted City urban design policies and regulations.

In order to assess the aesthetic characteristics of future development under the proposed WBSP, the analysis examines the new, changed, or eliminated development standards included in the proposed WBSP, as well as the provisions of the proposed WBSP Design Guidelines. The ultimate designs of future specific development projects under the WBSP would be proposed on a project-by-project basis, and specific project architectural and engineering design would be reviewed through the City's site plan and design review permit process.

THRESHOLDS OF SIGNIFICANCE

An impact on aesthetics, light, and glare is considered significant if implementation of the WBSP would do any of the following:

- have a substantial adverse effect on a scenic vista;
- conflict with applicable zoning and other regulations governing scenic quality in an urbanized area;
- substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; or
- create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.
    - *Glare.* Glare is considered to be significant if it would be cast in such a way as to cause public hazard or annoyance for a sustained period of time.
    - *Light*. Light is considered significant if it would be cast onto oncoming traffic or residential uses.

ISSUES NOT DISCUSSED FURTHER

As described above in regulatory setting, there are no Caltrans Designated Scenic Highways near the Specific Plan Area. Therefore, implementation of the WBSP would not damage scenic resources in the vicinity of a scenic highway. For these reasons, this topic is not addressed further in this EIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.1-1: Potential to Substantially Degrade the Existing Visual Character or Quality of Public Views of the Specific Plan Area and Its Surroundings

Implementation of the WBSP would result in the redevelopment of uses within the Specific Plan Area, which would modify public views and change the existing visual character of the Specific Plan Area. More specifically, changes in visual character within Miller Regional Park could have an adverse effect on the unique views of the Sacramento River. Additionally, redevelopment of the Alder Grove and Marina Vista residential areas could have an adverse effect on the visual character and visual qualities of those areas due to removal of existing dense tree canopy and loss of open space adjacent to residential units. Therefore, the WBSP would have a **potentially significant** impact with respect to visual character and quality.

In general, implementation of the WBSP would result in the redevelopment of the Specific Plan Area with denser and taller residential and mixed-use facilities, with supporting recreational opportunities. The following discussion divides the potential changes in visual character per subarea and assesses significance based on viewer sensitivity, as described above in Table 4.1-2.

Marina/Miller Regional Park Special Study Area

Within the Marina/Miller Regional Park Special Study Area, redevelopment under the WBSP would result in modifications to the existing Miller Regional Park and marina, including a reduction in the number marina slips to allow fill in the northern section of the existing marina area for the construction of the event lawn, buildings to accommodate restaurants, event space, a water sports basin, and other facilities; new bike trails, bike and pedestrian bridges over the marina and potential for a bike/ped bridge to West Sacramento and an excursion train platform. Construction of these facilities would change the visual character of the park, by adding structures, possibly requiring removal of existing trees. This scenario has the potential to result in substantial changes to the visual character of the park, but would be considered to improve the general visual character of the area by removing the existing marina development and encouraging a more natural landscape within the park. This would in turn allow for greater views of and accessibility to the Sacramento River. On the west side of Miller Regional Park, adjacent to the Sacramento River, landscaping and natural riparian vegetation consisting of shrubs and mature cottonwood trees growing adjacent to the river provide vistas unique to the immediate area. Alterations to Miller Regional Park that would occur under the proposed project could temporarily reduce the visual character of this area and detract from existing views. However, over time and similar to the other proposed modifications to the park, the overall visual character would improve, as it assumes a more natural condition, and the potential visual impact associated with implementation of the proposed project would be considered beneficial and less than significant.

West Broadway Gateway Subarea

As noted above, existing views of the West Broadway Gateway subarea are generally of low quality due to the presence of the industrial uses within the Specific Plan Area, which detract from views of the river in the vicinity of Miller Regional Park. Therefore, the WBSP designations for this area would bring

the developed land uses and 2035 General Plan land use designations into consistency and would have the potential to improve visual character of the subarea by removing industrial uses and replacing them with mixed-use residential uses that include amenities such as landscaping and an extension of Miller Regional Park along the river. This potential development under the WBSP would potentially improve the intactness and unity of river views in the area. However, without specific project plans, determining the precise impacts to visual resources would be speculative at this time.

The area on the east side of the railroad and adjacent to Miller Regional Park, along Front Street is currently developed with metal buildings and horse paddocks. This area would be adjacent to the portion of the Gateway subarea that would be designated Urban Neighborhood Medium Density. The proposed WBSP development for this area would have the potential to improve visual character of the subarea by removing industrial uses and replacing them with residential uses. Compliance with the 2035 General Plan goals and policies that address visual resources and the Urban Design Guidelines described above in the Regulatory setting would promote improvements in the visual character of the area. As implementation of the WBSP within this area would enhance accessibility and the visual character of this subarea (through site improvements and the potential removal of existing industrial uses), impacts would be considered beneficial and less than significant.

The Mill at Broadway Subarea

The Mill at Broadway is a new residential community approved in 2007 by the City Council as the Northwest Land Park Planned Unit Development. The project is currently under construction and will ultimately contain over 1,000 housing units. The WBSP does not propose any change to the existing 2035 General Plan land use designation (Urban Neighborhood Medium), type of development, or intensification of uses. Therefore, implementation of the WBSP would not modify the existing visual character of this area and would have no adverse effect on visual resources within this subarea.

Industrial Subarea

The WBSP would allow for redevelopment of the Industrial Subarea into a series of walkable blocks, with the potential for new commercial and multi-family residential or mixed-used development. The plan would also allow for potential reuse of existing, intact industrial structures, to provide opportunities for modern industrial retail development and live-work opportunities. Within this subarea, improvement of 1st Avenue as a shaded pedestrian-oriented street is identified as a key component for connecting the community east to west.

The WBSP has the potential to enhance the visual character of this portion of the Plan Area by replacing aging industrial structures, with mixed-use development that is visually consistent with and similar to the new residential development in the Mill, to the west of 5th Street and would include sidewalks and add landscaping to the area. Compliance with the 2035 General Plan goals and policies that address visual resources and the Urban Design Guidelines described above in the Regulatory setting would promote improvements in the visual character of the area. Similar to the West Broadway Gateway subarea, implementation of the WBSP within this area would enhance accessibility and the visual character of this subarea (through site improvements and the potential removal of existing industrial uses). As a result, impacts would be considered beneficial and less than significant.

Alder Grove Subarea

The Alder Grove Subarea 2035 General Plan land use designation is Traditional Neighborhood High and is zoned R-3 (Multifamily). Current development reflects the Urban Design Guidelines for the Traditional Neighborhood including “predominantly a mix of single-family units, duplexes, tri-plexes, four-plexes and apartments”, and “dense street tree canopy providing shade and enhanced

neighborhood character and identity". The housing within this subarea is managed by SHRA, and any redevelopment of this subarea would require approval by SHRA.

Implementation of the WBSP would involve potential redevelopment and reconfiguration of this subarea into a mixed housing community with a more walkable street grid and a new park as a focal point for activity in the community. Implementation of the WBSP would support higher density multifamily development in this subarea, consistent with the densities and intensities recommended in the City's 2035 General Plan along a major commercial and transit corridor. Urban Design Guidelines for this land use designation call for "consistent planting of street trees providing shade and enhance a character and identity." The redevelopment of this area with higher density residential development, along with the street extensions and realignments, has the potential to result in loss of open space adjacent to residences and removal of a substantial number of mature shade trees, resulting in the loss of the dense street tree canopy that currently exists. This would be considered a potentially adverse change in existing visual character and to views of this subarea.

Marina Vista Subarea

Implementation of the WBSP would involve potential redevelopment/reuse of this subarea into a mixed housing community, with a centralized park and a roadway network with smaller blocks and better integration with the surrounding neighborhoods. Like Alder Grove, the housing within this subarea is under the management of SHRA, and any redevelopment of this subarea would require further approval by SHRA.

The redevelopment of this area including street extensions and realignments has the potential to result in removal of a substantial number of mature shade trees and reduce the area of open lawn between structures. While development would be conducted in a manner consistent with general plan goals and policies and the City's Urban Design Guidelines, redevelopment of this subarea could substantially reduce the tree canopy and on-site open space that currently exists in the Marina Vista neighborhood. Due to the potential changes in views within this area, this would be considered a substantial adverse change with respect to visual resources since the tree canopy and lawn area are the main scenic assets for the area.

Land Park Woods and School Sites Subareas

No changes to these subareas are anticipated with implementation of the WBSP. However, these subareas are adjacent to the Marina Vista subarea and the adverse effects on aesthetic resources in Marina Vista will be visible to residents, students, teachers, of these adjacent areas as they pass by the Marina Vista neighborhood.

Conclusion

Implementation of the WBSP would generally improve the visual character of the Specific Plan Area, including Miller Regional Park and the West Broadway Gateway subareas, as well as provide a more consistent visual character for the Specific Plan Area. However, redevelopment of the Alder Grove and Marina Vista residential areas could have a substantial adverse effect on the visual character and visual qualities of those areas due to the potential removal of tree canopy and loss of lawn areas next to residential structures, as a result of increased development intensities. Although the proposed WBSP would allow for increased physical development within the Specific Plan Area, it is anticipated that the actual amount of development that would occur over the next 20 years under the WBSP would be generally consistent with what is assumed to occur under the 2035 General Plan, which facilitates increased residential population and urban development and which includes policies designed to ensure new development is visually compatible and complimentary to its site and surroundings.

More specifically, 2035 General Plan Policy LU 2.4 ensures that the City shall require building design that respects and responds to the local context, including use of local materials where feasible, responsiveness to Sacramento's climate, and consideration of cultural and historic context of Sacramento's neighborhoods and centers. Policy LU 2.7.3 requires that the scale and massing of new development in higher-density centers and corridors provide appropriate transitions in building height and bulk that are sensitive to the physical and visual character of adjoining neighborhoods that have lower development intensities and building heights. Policy LU 2.7.7 requires buildings to be oriented to and actively engage and complete the public realm through such features as building orientation, build-to and setback lines, façade articulation, ground-floor transparency, and location of parking. Policy LU 4.1.7 ensures that the City provides for appropriate transitions between different land use and urban form designations along the alignment of alleys or rear lot lines and along street centerlines, to maintain consistent scale, form, and character on both sides of public streetscapes. Policy LU 4.4.3 ensures that the City encourages sensitive design and site planning in urban neighborhoods that mitigates the scale of larger buildings through careful use of building massing, setbacks, façade articulation, fenestration, varied parapets and roof planes, and pedestrian-scaled architectural details. Policy ER 7.1.2 requires new development to be located and designed to visually complement the natural environment/setting when near the Sacramento and American Rivers, and along streams. Policy ER 7.1.4 guides the City to seek to ensure that new development does not significantly impact Sacramento's natural and urban landscapes. Furthermore, all development in the city, including within the Specific Plan Area, is subject to site plan and design review to ensure that the development is consistent with applicable plans and design guidelines and is compatible with surrounding development. Site plan and design review as part of WBSP implementation would ensure that development within the Specific Plan Area is consistent with applicable plans and design guidelines, is of high quality, and is compatible with surrounding development, thus avoiding adverse impacts to visual character within the context of a built-up downtown setting.

Further. pursuant to City requirements, a tree replacement plan would be prepared and required to be implemented as part of the tree removal permits for discretionary projects under Title 17. As a result, new development pursuant to the WBSP would be required to comply with applicable plans, policies, guidelines, and other requirements, including those imposed through the 2035 General Plan goals and policies, that are designed to ensure that new development is visually compatible and complementary to its site and surroundings. As a result, while implementation of the WBSP would result in a change in the visual condition of the Specific Plan Area, it would not be considered a substantial adverse change to either visual character, visual quality, or views within the area, and impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development within the Marina/Miller Regional Park Special Study Area. As a result, the potential beneficial impacts associated with the proposed project within this subarea would not occur. However, redevelopment of existing uses within the other subareas would similarly be required to maintain existing visual character and quality such that impacts would also be **less than significant**.

Impact 4.1-2: Conflict with Applicable Zoning and Other Regulations Governing Scenic Quality In an Urbanized Area

Implementation of the WBSP would result in the construction and operation of additional facilities within the Specific Plan Area and could result in alteration of views, primarily due to potential development of high-rise residential structures within the West Broadway Gateway subarea. However, new construction would be consistent with local zoning and land use regulations and would be located adjacent to similar existing development. Further, long-distance views within the Specific Plan Area have been largely altered by previous development. Future development under the WBSP would therefore result in **less-than-significant** impacts related to scenic quality.

As noted above, the Specific Plan Area is located on predominantly flat terrain and is surrounded by primarily one- and two-story developments with high-rise development located further to the north and east within the Central City. Within the Specific Plan Area, including along the majority of I-5 and Business 80, views are limited largely by existing development and landscaping, including masonry walls along the existing freeway segments in the area, and long-distance views are precluded. However, northbound along I-5 and eastbound along Business 80 provide long-distance views of the Sierras and of the downtown area and Sacramento River. As noted above, through implementation of 2035 General Plan policies and adherence to the City's Urban Design Guidelines, the City prioritizes maintenance of existing long-distance views along existing view corridors. As a result, development within the majority of the Specific Plan Area is expected to be consistent with and complementary to existing development and is not anticipated to result in substantial changes in long-distance and scenic views from within or across the Specific Plan Area. As a result, impacts would be less than significant within the majority of the Specific Plan Area.

Within the West Broadway Gateway, existing development predominantly features fuel tanks and supporting structures that have limited visibility from the nearby freeways and the Sacramento River. With implementation of the WBSP, this subarea could redevelop with high-rise, mixed-use residential towers that could rise above the level of the existing freeway segments and preclude some long-distance views from vehicles on either Business 80 or I-5. However, the change in views of and through the Specific Plan Area would be considered consistent with the existing visual character of the urbanized setting to the north and northwest of the Specific Plan Area, including areas immediately adjacent to the Sacramento River. As previously described, long-distance views within the Specific Plan Area are largely limited by existing development and landscaping. Additionally, subsequent development under the WBSP would be both consistent with and complimentary of existing land uses in the Specific Plan Area (e.g., The Mill at Broadway). Further, induvial projects within the Specific Plan Area would be required to adhere to local zoning and land use requirement as well as City 2035 General Plan policies and design review requirements, including maintenance of existing long distance views and implementation of screening measures (e.g., landscaping and other design features, primarily along the base of the structures). Therefore, future development under the WBSP is not anticipated to adversely affect existing scenic quality in the already developed Specific Plan Area. Impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development within the Marina/Miller Regional Park Special Study Area. The development potential of the remainder of the WBSP would remain the same as the proposed project under this

option, and as a result, development under this option would also result in **less-than-significant** impacts related to scenic quality of the Specific Plan Area and adjacent land uses.

Impact 4.1-3: Potential to Create a New Source of Substantial Light or Glare Which Would Adversely Affect Day or Nighttime Views In the Area

The project would increase nighttime lighting within the project area as a result of new light sources attributed to proposed residential and mixed-use development. The proposed project would be subject to the City's 2035 General Plan policies that address lighting and glare; In addition, lighting, including adverse effects of glare and light trespass or spillover light are considerations addressed by the City through the site plan and design review process. All future development in the Specific Plan Area would be subject to his review process, ensuring that the effects of glare and spillover light would be addressed. Impacts related light and glare as a result of implementation of the WBSP be **less than significant**.

Spillover Light or Light Trespass

Because the WBSP would involve an intensification of uses within the Specific Plan Area, nighttime lighting would likely increase within the project area. Most of the new light sources would be attributed to proposed residential and mixed-use development and the associated evening activity of residents and guests. Near the commercial areas, there could be light in the evening hours adjacent to residential uses; however, the proposed project would be subject to the City's 2035 General Plan policies that address lighting and glare. Policy ER 7.1.3 Lighting states "The City shall minimize obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary, and requiring light for development to be directed downward to minimize spill-over onto adjacent properties and reduce vertical glare".

Glare

Daytime glare could be produced by an increase in surface area of commercial and residential structures that would result from implementation of the WBSP. However, development within the Specific Plan Area would be required to adhere to City policies that are designed to minimize glare. The 2035 General Plan Policy ER 7.1.4 Reflective Glass states that "The City shall prohibit new development from (1) using reflective glass that exceeds 50 percent of any building surface and on the bottom three floors, (2) using mirrored glass, (3) using black glass that exceeds 25 percent of any surface of a building, (4) using metal building materials that exceed 50 percent of any street-facing surface of a primarily residential building, and (5) using exposed concrete that exceeds 50 percent of any building".

Night Sky Lighting Effects

New development can result in increases in ambient nighttime lighting that can affect nighttime views of the sky. Implementation of the WBSP would result in more higher density multi-family residential development and mixed-use commercial development in the specific plan area, which would increase ambient light in the Specific Plan Area. However, the WBSP and surrounding area is already developed and subject to nighttime ambient light, and the increase in such light would not significantly alter nighttime views of the sky (ability to see the stars), because such views are already limited in city settings.

Additionally, lighting, including adverse effects of glare and light trespass or spillover light are considerations addressed by the City through the site plan and design review process. All future development in the Specific Plan Area would be subject to his review process, ensuring that the effects of glare and spillover light would be addressed. Impacts related light and glare as a result of implementation of the WBSP be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development within the Marina/Miller Regional Park Special Study Area. The development potential of the remainder of the WBSP would remain the same as the proposed project and would therefore result in a similar level of new sources of light and glare. However, as described above, all future development in the Specific Plan Area would be subject to his review process, ensuring that the effects of glare and spillover light would be addressed. As a result, impacts would also be considered **less-than-significant** under this option.

CUMULATIVE IMPACTS

Impact 4.1-4: Potential for the Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact Related to Aesthetics

Implementation of the WBSP, in combination with future development along the River in Sacramento and West Sacramento would alter aesthetic conditions in the area. Development under the WBSP would be designed in accordance with applicable standards and regulations related to scenic quality, light, and glare, and would be complimentary to existing uses within the Specific Plan Area. As a result, the WBSP's would not cumulatively contribute to an adverse visual impact. Impacts would be **less than significant**.

The geographic context for the analysis of cumulative scenic resource impacts includes areas adjacent to and visible from the Specific Plan Area, or areas that would be visible from locations that currently include views of the Specific Plan Area. These viewing areas include the river and riverfronts in Sacramento and West Sacramento, elevated freeways and freeway connector ramps to the north of the WBSP, adjacent surface streets, the Old City Cemetery, and neighborhoods within WBSP and adjacent to WBSP.

Areas to the east and south of the Specific Plan Area are built out and there are no planned or new projects that would be a contributor to cumulative scenic effects. The Central City Specific Plan area to the north of the WBSP is built out and set off by the elevated freeways and freeway ramps, therefore projects within the Central City area would not be visible in views that encompass the Specific Plan Area. An exception would be riverfront development in the Central City that is planned to the north of the WBSP West Broadway Gateway subarea.

Various redevelopment projects are planned by the City of West Sacramento on the west side of the Sacramento River in the vicinity of the Specific Plan Area that could potentially contribute to cumulative impacts on scenic resources, including:

- Pioneer Bluff and Stone Lock Reuse Master Plan, consists of approximately 125 acres of Sacramento riverfront property situated along a one-mile stretch of South River Road and directly across the river from Miller Regional park and the WBSP Gateway subarea. This area is in the planning stages for replacement of industrial uses (including tank farms), with mixed use development. (City of West Sacramento n.d.).

- The Bridge District (TBD) is a waterfront orientated urban mixed-use district located along the West Sacramento side of the Sacramento River, with Tower Bridge on the north and extending along the waterfront just south of the Pioneer Bridge. This district includes recreational amenities such as River Walk Park, Raley Field, Mill St. Pier, The Barn, and the newly installed Subtile art piece (City of West Sacramento 2009).
- The Mill Street Pier, located within the TBD and to the north of the Pioneer Bridge is a revitalization project for the pier that will include the installation of a multi-dimensional moving sculpture floating off the Pier (City of West Sacramento n.d.).

The City's 2035 General Plan designates the area north of the West Broadway Gateway Subarea is as Park and Urban Center High. Urban Center High would allow high density residential, employment intensive uses, and a variety of retail uses. Existing development in this area is low intensity industrial and the Sacramento River recreation trail passes along the river's edge through this area. Under present conditions, viewer sensitivity is high, but the primary viewing group is users of the recreational trail, including bicyclists, walkers, and runners. Primary views of note are views of the river from the recreation trail. The Pioneer Bridge, and industrial structures north of Miller Regional Park are in the foreground of these views, therefore these views are not of high scenic quality.

Given the nature of the WBSP, future development would be intended to complement, rather the detract, from the cumulative viewshed experience. Through implementation of 2035 General Plan policies and the design review process, new development would be visually compatible (e.g., visual character) with surrounding existing and new development. Therefore, future development would not detract from the existing scenic quality present within the Specific Plan Area.

Cumulative effects of lighting are visible over a wide area, because of the potential for lighting from a number of projects to create skyglow. Under existing conditions, the Specific Plan Area, and surrounding areas, experience lighting in the form of streetlights, or illumination for paths, buildings, and other noteworthy structures. As described in Impact 3.1-3, implementation of the WBSP would introduce new lighting sources; however, while these fixtures would be similar in nature to existing lighting, and would not contribute new high, intensity lighting (i.e., field lighting) that could contribute substantially to nightlighting conditions. Therefore, the project would not have a considerable contribution to skyglow such that a new significant skyglow impact would occur. Overall, implementation of the WBSP would result in a less-than-significant cumulative visual impact.

Mitigation Measures

No mitigation is required for this impact.

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4.2 AIR QUALITY

This section includes a discussion of existing air quality conditions, a summary of applicable regulations, and an analysis of potential construction and operational air quality impacts caused by development associated with implementation of the West Broadway Specific Plan (WBSP). Mitigation is developed as necessary to reduce significant air quality impacts to the extent feasible.

Comments received in response to the Notice of Preparation for the EIR included one comment letter from the Sacramento Metropolitan Air Quality Management District (SMAQMD). The letter included specific recommendations for conducting the air quality analysis including consistency with policies in the City's General Plan and related planning documents, recommendations for the design of the project, and a list of standard air quality permits and conditions of approval for projects in SMAQMD's jurisdiction.

4.2.1 Regulatory Setting

Air quality is regulated through the efforts of various federal, State, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality within and in the vicinity of the Specific Plan Area are described below.

FEDERAL

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) has been charged with implementing national air quality programs. EPA's air quality mandates draw primarily from the federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments made by Congress in 1990. EPA's air quality efforts address both criteria air pollutants and hazardous air pollutants (HAPs). EPA regulations concerning CAPs and HAPs are presented in greater detail below.

Criteria Air Pollutants

The CAA required EPA to establish national ambient air quality standards (NAAQS) for six common air pollutants found all over the U.S. referred to as criteria air pollutants. EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter with aerodynamic diameter of 10 micrometers or less (PM_{10}) and fine particulate matter with aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$), and lead. The NAAQS are shown in Table 4.2-1. The primary standards protect public health and the secondary standards protect public welfare. The CAA also required each state to prepare a State Implementation Plan (SIP) for attaining and maintaining the NAAQS. The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. California's SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, EPA may prepare a federal implementation plan that imposes additional control measures. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

Table 4.2-1 National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California (CAAQS)[a,b]	National (NAAQS)[c]	
			Primary[b,d]	Secondary[b,e]
Ozone	1-hour	0.09 ppm (180 µg/m^3)	–[e]	Same as primary standard
	8-hour	0.070 ppm (137 µg/m^3)	0.070 ppm (147 µg/m^3)	
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	Same as primary standard
	8-hour	9 ppm[f] (10 mg/m^3)	9 ppm (10 mg/m^3)	
Nitrogen dioxide (NO_2)	Annual arithmetic mean	0.030 ppm (57 µg/m^3)	53 ppb (100 µg/m^3)	Same as primary standard
	1-hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	—
Sulfur dioxide (SO_2)	24-hour	0.04 ppm (105 µg/m^3)	—	—
	3-hour	—	—	0.5 ppm (1300 µg/m^3)
	1-hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	—
Respirable particulate matter (PM_{10})	Annual arithmetic mean	20 µg/m^3	—	Same as primary standard
	24-hour	50 µg/m^3	150 µg/m^3	
Fine particulate matter ($PM_{2.5}$)	Annual arithmetic mean	12 µg/m^3	12.0 µg/m^3	15.0 µg/m^3
	24-hour	—	35 µg/m^3	Same as primary standard
Lead[f]	Calendar quarter	—	1.5 µg/m^3	Same as primary standard
	30-Day average	1.5 µg/m^3	—	—
	Rolling 3-Month Average	–	0.15 µg/m^3	Same as primary standard
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m^3)	No national standards	
Sulfates	24-hour	25 µg/m^3		
Vinyl chloride[f]	24-hour	0.01 ppm (26 µg/m^3)		
Visibility-reducing particulate matter	8-hour	Extinction of 0.23 per km		

Notes: µg/m^3 = micrograms per cubic meter; km = kilometers; ppb = parts per billion; ppm = parts per million.

a California standards for ozone, carbon monoxide, SO_2 (1- and 24-hour), NO_2, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

b Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°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.

c National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. The PM_{10} 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. The $PM_{2.5}$ 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. Environmental Protection Agency for further clarification and current federal policies.

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 The California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold 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.

Source: CARB 2016

Hazardous Air Pollutants and Toxic Air Contaminants

Toxic air contaminants (TACs), or in federal parlance, HAPs, are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to

human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

A wide range of sources, from industrial plants to motor vehicles, emit TACs. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage; or short-term acute affects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

For evaluation purposes, TACs are separated into carcinogens and non-carcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. This contrasts with criteria air pollutants for which acceptable levels of exposure can be determined and for which the ambient standards have been established (Table 4.2-1). Cancer risk from TACs is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure.

EPA regulates HAPs through its National Emission Standards for Hazardous Air Pollutants. The standards for a particular source category require the maximum degree of emission reduction that the EPA determines to be achievable, which is known as the Maximum Achievable Control Technology—MACT standards. These standards are authorized by Section 112 of the 1970 CAA and the regulations are published in 40 CFR Parts 61 and 63.

STATE

California Air Resources Board (CARB) is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required CARB to establish California ambient air quality standards (CAAQS) (Table 4.2-1).

Criteria Air Pollutants

CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to attain and maintain the CAAQS by the earliest date practical. The CCAA specifies that local air districts should focus particular attention on reducing the emissions from transportation and area-wide emission sources. The CCCA also provides air districts with the authority to regulate indirect sources.

Toxic Air Contaminants

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807, Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588, Chapter 1252, Statutes of 1987). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review are required before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and adopted EPA's list of HAPs as TACs. Most recently, particulate matter (PM) exhaust from diesel engines (diesel PM) was added to CARB's list of TACs.

After a TAC is identified, CARB then adopts an airborne toxics control measure for sources that emit that particular TAC. If a safe threshold exists for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If no safe threshold exists, the measure must incorporate best available control technology for toxics to minimize emissions.

The Hot Spots Act requires that existing facilities that emit toxic substances above a specified level prepare an inventory of toxic emissions, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

AB 617 of 2017 aims to help protect air quality and public health in communities around industries subject to the state's cap-and-trade program for GHG emissions. AB 617 imposes a new state-mandated local program to address non-vehicular sources (e.g., refineries, manufacturing facilities) of criteria air pollutants and TACs. The bill requires CARB to identify high-pollution areas and directs air districts to focus air quality improvement efforts through adoption of community emission reduction programs within these identified areas. Currently, air districts review individual sources and impose emissions limits on emitters based on best available control technology, pollutant type, and proximity to nearby existing land uses. This bill addresses the cumulative and additive nature of air pollutant health effects by requiring community-wide air quality assessment and emission reduction planning.

CARB has adopted diesel exhaust control measures and more stringent emissions standards for various transportation-related mobile sources of emissions, including transit buses, and off-road diesel equipment (e.g., tractors, generators). Over time, the replacement of older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1-3-butadiene, diesel PM) have been reduced significantly over the last decade and will be reduced further in California through a progression of regulatory measures (e.g., Low Emission Vehicle/Clean Fuels and Phase II reformulated gasoline regulations) and control technologies. With implementation of CARB's Risk Reduction Plan, it is expected that diesel PM concentrations will be 85 percent less in 2020 in comparison to year 2000 (CARB 2000). Adopted regulations are also expected to continue to reduce formaldehyde emissions emitted by cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

LOCAL

Sacramento Metropolitan Air Quality Management District

Criteria Air Pollutants

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the primary agency responsible for planning to meet NAAQS and CAAQS in Sacramento County. SMAQMD works with other local air districts in the Sacramento region to maintain the region's portion of the SIP for ozone. The SIP is a compilation of plans and regulations that govern how the region and State will comply with the federal CCA requirements to attain and maintain the NAAQS for ozone. The Sacramento Region has been designated as a "severe" 8-hour ozone nonattainment area with an extended attainment deadline of June 15, 2019.

SMAQMD has developed a set of guidelines for use by lead agencies when preparing environmental documents. The guidelines contain thresholds of significance for criteria pollutants and TACs, and also make recommendations for conducting air quality analyses. After SMAQMD guidelines have been consulted and the air quality impacts of a project have been assessed, the lead agency's analysis

undergoes a review by SMAQMD. SMAQMD submits comments and suggestions to the lead agency for incorporation into the environmental document.

All projects are subject to adopted SMAQMD rules and regulations in effect at the time of construction. Specific rules applicable to the construction of the project may include but are not limited to the following:

- **Rule 201**: General Permit Requirements. Any project that includes the use of equipment capable of releasing emissions to the atmosphere may be required to obtain permit(s) from SMAQMD before equipment operation. The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact SMAQMD early to determine whether a permit is required, and to begin the permit application process. Portable construction equipment (e.g., generators, compressors, pile drivers, lighting equipment) with an internal combustion engine greater than 50 horsepower must have a SMAQMD permit or ARB portable equipment registration.
- **Rule 202**: New Source Review. The purpose of this rule is to provide for the issuance of authorities to construct and permits to operate at new and modified stationary air pollution sources and to provide mechanisms, including emission offsets, by which authorities to construct such sources may be granted without interfering with the attainment or maintenance of ambient air quality standards.
- **Rule 402**: Nuisance. A person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause or have natural tendency to cause injury or damage to business or property.
- **Rule 403**: Fugitive Dust. The developer or contractor is required to control dust emissions from earthmoving activities or any other construction activity to prevent airborne dust from leaving the project area.
- **Rule 417**: Wood Burning Appliances. The purpose of the rule is to limit emissions of particulate matter to the atmosphere from the operation of wood burning appliances.
- **Rule 442**: Architectural Coatings. The purpose of the rule is to limit the emissions of VOCs from the use of architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the District.
- **Rule 902**: Asbestos. The developer or contractor is required to notify SMAQMD of any regulated renovation or demolition activity. Rule 902 contains specific requirements for surveying, notification, removal, and disposal of material containing asbestos.
- **Rule 902**: Asbestos. The developer or contractor is required to notify SMAQMD of any regulated renovation or demolition activity. Rule 902 contains specific requirements for surveying, notification, removal, and disposal of material containing asbestos.

In addition, if modeled construction-generated emissions for a project are not reduced to less than SMAQMD's mass emission threshold (85 pounds per day [lb/day]) after the standard construction mitigation is applied, then SMAQMD recommends using an off-site construction mitigation fee. The fee must be paid before a grading permit can be issued. This fee is used by SMAQMD to purchase off-site emissions reductions. Such purchases are made through SMAQMD's Heavy Duty Incentive Program, through which select owners of heavy-duty equipment in Sacramento County can repower or retrofit their old engines with cleaner engines or technologies.

Air Quality Management Plans

For land use development projects that will exceed SMAQMD's operational emissions thresholds of significance for reactive organic gases (ROG), oxides of nitrogen (NO_X), or PM, it is recommended that the project applicant develop an Air Quality Mitigation Plan (AQMP) describing how the project will reduce operational emissions. SMAQMD recommends that if a project exceeds these thresholds, mitigation must be identified to reduce on-road mobile source emissions by 15 percent if the project is within the current State Implementation Plan (SIP), or by 35 percent if not within the SIP. SMAQMD's Recommended Guidance for Land Use Emission Reductions provides guidance in developing an AQMP to achieve the necessary reductions through emissions reductions strategies.

Toxic Air Contaminants

At the local level, air districts may adopt and enforce CARB control measures. Under SMAQMD Rule 201 ("General Permit Requirements"), Rule 202 ("New Source Review"), and Rule 207 ("Federal Operating Permit"), all sources that possess the potential to emit TACs are required to obtain permits from SMAQMD. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including New Source Review standards and air toxics control measures. SMAQMD limits emissions and public exposure to TACs through a number of programs. SMAQMD prioritizes TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors. Sensitive receptors are people, or facilities that generally house people (e.g., schools, hospitals, residences), that may experience adverse effects from unhealthful concentrations of air pollutants.

Odors

Although offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable stress among the public and often generating citizen complaints to local governments and SMAQMD. SMAQMD's Rule 402 (Nuisance) regulates odorous emissions.

City of Sacramento

City of Sacramento General Plan

The following policies from the 2035 General Plan are relevant to air quality.

- **Policy ER 6.1.1:** The City shall work with the California Air Resources Board and the SMQAMD to meet State and Federal ambient air quality standards in order to protect residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution.
- **Policy ER 6.1.2:** The City shall review proposed development projects to ensure projects incorporate feasible measures that reduce construction and operational emissions for reactive organic gases, nitrogen oxides, and particulate matter (PM_{10} and $PM_{2.5}$) through project design.
- **Policy ER 6.1.3:** The City shall require development projects that exceed SMAQMD ROG and NOX operational thresholds to incorporate design or operational features that reduce emissions equal to 15 percent from the level that would be produced by an unmitigated project.
- **Policy ER 6.1.4:** The City shall coordinate with SMAQMD in evaluating exposure of sensitive receptors to toxic air contaminants, and will impose appropriate conditions on projects to protect public health and safety.

- **Policy ER 6.1.10:** The City shall coordinate with SMAQMD to ensure projects incorporate feasible mitigation measures to reduce GHG emissions and air pollution if not already provided for through project design.
- **Policy ER 6.1.15:** The City shall educate the public about air quality standards, health effects, and efforts they can make to improve air quality and reduce greenhouse gas emissions in the Sacramento region.

City of Sacramento Climate Action Plan

The Sacramento Climate Action Plan (CAP) was adopted on February 14, 2012 by the Sacramento City Council and was incorporated into the 2035 General Plan. The CAP includes air quality goals, strategies, and implementation measures developed to help the city reach its goals. The City also developed a CAP Consistency Review Checklist to provide a streamlined review process for proposed new development projects which are subject to CEQA.

4.2.2 Environmental Setting

The project area is located within the City of Sacramento, as part of Sacramento County, which is within the Sacramento Valley Air Basin (SVAB). The SVAB also includes all of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba Counties; the western portion of Placer County; and the eastern portion of Solano County. The ambient concentrations of air pollutant emissions are determined by the amount of emissions released by the sources of air pollutants and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources, as discussed separately below.

CLIMATE, METEOROLOGY, AND TOPOGRAPHY

The SVAB is a relatively flat area bordered by the north Coast Ranges to the west and the northern Sierra Nevada to the east. Air flows into the SVAB through the Carquinez Strait, the only breach in the western mountain barrier, and moves across the Sacramento River–San Joaquin River Delta (Delta) from the San Francisco Bay area.

The Mediterranean climate type of the SVAB is characterized by hot, dry summers and cool, rainy winters. During the summer, daily temperatures range from 50 degrees Fahrenheit (°F) to more than 100°F. The inland location and surrounding mountains shelter the area from much of the ocean breezes that keep the coastal regions moderate in temperature. Most precipitation in the area results from air masses that move in from the Pacific Ocean, usually from the west or northwest, during the winter months. More than half the total annual precipitation falls during the winter rainy season (November through February); the average winter temperature is a moderate 49°F. Also, characteristic of SVAB winters are periods of dense and persistent low-level fog, which are most prevalent between storms. The prevailing winds are moderate in speed and vary from moisture-laden breezes from the south to dry land flows from the north.

The mountains surrounding the SVAB create a barrier to airflow, which leads to the entrapment of air pollutants when meteorological conditions are unfavorable for transport and dilution. The highest frequency of poor air movement occurs in the fall and winter when high-pressure cells are present over the SVAB. The lack of surface wind during these periods, combined with the reduced vertical flow

caused by a decline in surface heating, reduces the influx of air and leads to the concentration of air pollutants under stable metrological conditions. Surface concentrations of air pollutant emissions are highest when these conditions occur in combination with agricultural burning activities or with temperature inversions, which hamper dispersion by creating a ceiling over the area and trapping air pollutants near the ground.

Elevated levels of ozone typically occur May through October in the SVAB. This period is characterized by poor air movement in the mornings with the arrival of the Delta sea breeze from the southwest in the afternoons. In addition, longer daylight hours provide ample sunlight to fuel photochemical reactions between ROG and NO_X, which form ozone. Typically, the Delta breeze transports air pollutants northward out of the SVAB; however, a phenomenon known as the Schultz Eddy prevents this from occurring during approximately half of the time from July to September. The Schultz Eddy phenomenon causes the wind to shift southward and blow air pollutants back into the SVAB. This phenomenon exacerbates the concentration of air pollutant emissions in the area and contributes to the area violating the ambient-air quality standards.

The local meteorology of the Specific Plan Area is represented by measurements recorded at the Western Regional Climate Center Sacramento 5 ESE station. The normal annual precipitation is approximately 18 inches. January temperatures range from a normal minimum of 40°F to a normal maximum of 53.5°F. July temperatures range from a normal minimum of 59.2°F to a normal maximum of 92°F (WRCC 2019a). The predominant wind direction is from the south (WRCC 2019b).

CRITERIA AIR POLLUTANTS

Concentrations of emissions of criteria air pollutants indicate the quality of the ambient air. Brief descriptions of key criteria air pollutants in the SVAB and their health effects are provided below. Criteria air pollutants include ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead. However, ozone, PM_{10}, and $PM_{2.5}$ are the criteria air pollutants of primary concern in this analysis due to their nonattainment status with respect to the applicable NAAQS and/or CAAQS. Emission source types and health effects are summarized in Table 4.2-2. Sacramento County's attainment status for the CAAQS and the NAAQS are shown in Table 4.2-3. Monitoring data applicable to the Specific Plan Area is provided in Table 4.2-4.

Ozone

Ozone is a photochemical oxidant (a substance whose oxygen combines chemically with another substance in the presence of sunlight) and the primary component of smog. Ozone is not directly emitted into the air but is formed through complex chemical reactions between precursor emissions of ROG and NO_X in the presence of sunlight. ROG are volatile organic compounds that are photochemically reactive. ROG emissions result primarily from incomplete combustion and the evaporation of chemical solvents and fuels. NO_X are a group of gaseous compounds of nitrogen and oxygen that result from the combustion of fuels.

Emissions of the ozone precursors ROG and NO_X have decreased over the past several years because of more stringent motor vehicle standards and cleaner burning fuels. Emissions of ROG and NO_X decreased from 2000 to 2010 and are projected to continue decreasing from 2010 to 2035 (CARB 2013).

Nitrogen Dioxide

NO_2 is a brownish, highly reactive gas that is present in all urban environments. The major human-made sources of NO_2 are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO_2. The combined emissions of NO and NO_2 are

referred to as NO_X and are reported as equivalent NO_2. Because NO_2 is formed and depleted by reactions associated with photochemical smog (ozone), the NO_2 concentration in a particular geographical area may not be representative of the local sources of NO_X emissions (EPA 2012).

Particulate Matter

Respirable particulate matter with an aerodynamic diameter of 10 micrometers or less is referred to as PM_{10}. PM_{10} consists of particulate matter emitted directly into the air, such as fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires and natural windblown dust, and particulate matter formed in the atmosphere by reaction of gaseous precursors (CARB 2013). Fine particulate matter ($PM_{2.5}$) includes a subgroup of smaller particles that have an aerodynamic diameter of 2.5 micrometers or less. PM_{10} emissions in the SVAB are dominated by emissions from area sources, primarily fugitive dust from vehicle travel on unpaved and paved roads, farming operations, construction and demolition, and particles from residential fuel combustion. Direct emissions of PM_{10} are projected to remain relatively constant through 2035. Direct emissions of $PM_{2.5}$ have steadily declined in the SVAB between 2000 and 2010 and then are projected to increase very slightly through 2035. Emissions of $PM_{2.5}$ in the SVAB are dominated by the same sources as emissions of PM_{10} (CARB 2013).

Table 4.2-2 Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Ozone	Secondary pollutant resulting from reaction of ROG and NO_X in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO_X results from the combustion of fuels	increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	Incomplete combustion of fuels; motor vehicle exhaust	headache, dizziness, fatigue, nausea, vomiting, death	permanent heart and brain damage
Nitrogen dioxide (NO_2)	combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	chronic bronchitis, decreased lung function
Sulfur dioxide (SO_2)	coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO_2 exposure to chronic health impacts
Respirable particulate matter (PM_{10}), Fine particulate matter ($PM_{2.5}$)	fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO_2 and ROG	breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	alterations to the immune system, carcinogenesis
Lead	metal processing	reproductive/ developmental effects (fetuses and children)	numerous effects including neurological, endocrine, and cardiovascular effects

Notes: NO_X = oxides of nitrogen; ROG = reactive organic gases.

[1] "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.

[2] "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.

Sources: EPA 2016

Table 4.2-3 Attainment Status Designations for Sacramento County

Pollutant	National Ambient Air Quality Standard	California Ambient Air Quality Standard
Ozone	Attainment (1-hour)[1]	Nonattainment (1-hour) Classification-Serious
	Nonattainment (8-hour)[2] Classification=Severe	Nonattainment (8-hour)[3]
	Nonattainment (8-hour)[2] Classification=Severe	
Respirable particulate matter (PM_{10})	Attainment (24-hour)	Nonattainment (24-hour)
		Nonattainment (Annual)
Fine particulate matter ($PM_{2.5}$)	Nonattainment (24-hour)	(No State Standard for 24-Hour)
	Attainment (Annual)	Attainment (Annual)
Carbon monoxide (CO)	Attainment (1-hour)[4]	Attainment (1-hour)
	Attainment (8-hour)[4]	Attainment (8-hour)
Nitrogen dioxide (NO_2)	Unclassified/Attainment (1-hour) [5,6]	Attainment (1-hour)
	Unclassified/Attainment (Annual) [5,6]	Attainment (Annual)
Sulfur dioxide (SO_2)	(Attainment Pending) (1-Hour)[7]	Attainment (1-hour)
		Attainment (24-hour)
Lead (Particulate)	Attainment (3-month rolling avg.)	Attainment (30 day average)
Hydrogen Sulfide	No Federal Standard	Unclassified (1-hour)
Sulfates		Attainment (24-hour)
Visibly Reducing Particles		Unclassified (8-hour)
Vinyl Chloride		Unclassified (24-hour)

Notes:

[1] EPA revoked the 1979 1-hour and 1997 8-hour standards.

[2] The nonattainment area is classified as Severe-15.

[3] In April 2005, the California Air Resources Board (CARB) approved a new 8-hour standard of 70 ppb and retained the 1-hour standard of 90 ppb.

[4] The original NAAQS was established in 1971. EPA reviewed both the 1-hour and 8-hour standards and decided to retain these standards in 2011.

[5] The original NAAQS was established in 1971. EPA reviewed and decided to retain the annual arithmetic mean standard in 2010.

[6] EPA designates areas as "unclassifiable/attainment" if they met the standard or are expected to meet the standard despite a lack of monitoring data.

[7] Attainment /Unclassifiable designation was made as part of EPA's Air Quality Designations for the 2010 Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard - Round 3 designation in December 2017.

Source: SMAQMD 2019

MONITORING STATION DATA AND ATTAINMENT DESIGNATIONS

Criteria air pollutant concentrations are measured at several monitoring stations in the SVAB. The Sacramento-T Street station is the closest and most representative station to the Specific Plan Area with recent data for ozone and $PM_{2.5}$. Table 4.2-4 summarizes the air quality data from the 3 most recent years of data available (2015–2017).

Both CARB and EPA use this type of monitoring data to designate areas according to their attainment status for criteria air pollutants (attainment designations are summarized above in Table 4.2-2).

Table 4.2-4 Summary of Annual Data on Ambient Air Quality (2016-2018)[1]

	2016	2017	2018
Ozone			
Maximum concentration (1-hr/8-hr avg, ppm)	0.074	0.077	0.084
Number of days state standard exceeded (1-hr/8-hr)	3	3	1
Number of days national standard exceeded (8-hr)	3	3	1
Fine Particulate Matter ($PM_{2.5}$)			
Maximum concentration (24-hour µg/m^3)	24.4	44.5	149.9
Number of days national standard exceeded (24-hour measured)	0	2	3
Respirable Particulate Matter (PM_{10})			
Maximum concentration (µg/m^3)	51.4	150.3	309.5
Number of days state standard exceeded	0	0	0
Number of days national standard exceeded	1	21	22

Notes: µg/m^3 = micrograms per cubic meter; ppm = parts per million

1. Measurements from the Sacramento-T Street station for ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$).

Source: CARB 2019

TOXIC AIR CONTAMINANTS

According to the *California Almanac of Emissions and Air Quality* (CARB 2013), the majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being diesel PM. Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. Unlike the other TACs, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. However, CARB has made preliminary concentration estimates based on a PM exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel PM. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

Diesel PM poses the greatest health risk among these 10 TACs mentioned. Based on receptor modeling techniques, CARB estimated the average cancer risk associated with diesel PM concentrations in the SVAB to be 360 excess cancer cases per million people in the year 2000. Overall, levels of most TACs, except para-dichlorobenzene and formaldehyde, have decreased since 1990 (CARB 2013). Based on CARB's Pollution Mapping Tool, there are no stationary sources of TAC in the Specific Plan Area.

ODORS

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell very minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, 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., fast food restaurant). It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity. Odor sources of concern include wastewater treatment plants, sanitary landfills, composting facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting operations, rendering plants, and food packaging plants (SMAQMD 2016b). None of these odorous land uses are within proximity to the Specific Plan Area.

SENSITIVE RECEPTORS

Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants. There are groups of multi-family dwelling units in the eastern, central, and southern portion of the Specific Plan Area. The Leataata Floyd Elementary School and Health Professions High School are located in the central portion of the Specific Plan Area, directly east of Interstate 5. There is also a playground in Muir Way Park in the southeast portion of the Specific Plan Area.

4.2.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Regional and local criteria air pollutant emissions and associated impacts, as well as impacts from TACs, CO concentrations, and odors were assessed in accordance with SMAQMD-recommended methodologies. The WBSP's emissions are compared to SMAQMD-adopted thresholds.

Short-Term Construction Emissions Methodology

Emissions from construction activities represent temporary impacts that are typically short in duration, depending on the size, phasing, and type of development. Air quality impacts can be acute during construction periods, resulting in significant localized impacts to air quality. Construction of land uses associated with implementation of the WBSP would generate temporary criteria pollutant emissions, primarily due to the operation of construction equipment and truck trips.

Construction-related emissions of criteria air pollutants and precursors were estimated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program (CAPCOA 2017). Modeling was based on construction activity from the total amount of new dwelling units and land use types proposed, which are included in Table 2-2 in Chapter 2, "Project Description" for this EIR. (See Appendix C for a summary of all land uses included in the modeling). For the purposes of this analysis, it is assumed that buildout of the Specific Plan Area pursuant to the WBSP would occur by 2035. The modeling conducted for this analysis assumes that construction emissions would occur over a period of 15 years (i.e., 2020 and 2035). Although the exact timing of construction activity over

this period is unknown, for the purposes of modeling, it was assumed that development would occur incrementally over the lifetime of the WBSP's implementation (2020-2035). For construction modeling, it was assumed that the first developments would be complete in 2023 and the architectural coating phase of development would occur between 2023 and 2035. It was also assumed that construction activities as part of WBSP implementation would include demolition of 228,751 square feet (SF) of light industrial buildings which would occur incrementally between 2020 and 2035.

Long-Term Operational Emissions Methodology

Operational emissions of criteria air pollutants and precursors were estimated using CalEEMod. Modeling used land use information provided in Chapter 2, "Project Description," including assumptions associated with all land use designations and types that would be developed. Where such information was not available, default values in CalEEMod based on the WBSP's location and land use types were used. Operational emissions were estimated using CalEEMod for the following sources: transportation (vehicle emissions), area sources (e.g., landscaping-related), energy use (i.e., electricity and natural gas use), wastewater, water use, and solid waste.

The WBSP-generated annual vehicle miles traveled (VMT) estimates were derived from WBSP-specific traffic modeling included in Section 4.12 "Transportation." VMT estimates included in the traffic modeling generated for the baseline (2018) and target year (2036). See Appendix G for further details regarding to VMT. CO impacts were assessed based on available screening criteria from the SMAQMD and WBSP-specific traffic data.

The level of health risk from exposure to construction- and operation-related TAC emissions was assessed qualitatively. This assessment was based on the proximity of TAC-generating construction activity to off-site sensitive receptors, the number and types of diesel-powered construction equipment being used, and the duration of potential TAC exposure.

Impacts related to odors were also assessed qualitatively, based on proposed construction activities, equipment types and duration of use, overall construction schedule, and distance to nearby sensitive receptors. Odor impacts were evaluated in accordance with SMAQMD guidance and methods.

THRESHOLDS OF SIGNIFICANCE

Per Appendix G of the CEQA Guidelines and SMAQMD recommendations, the WBSP's impact to air quality is considered significant if it would do any of the following:

- cause construction-generated criteria air pollutant or precursor emissions to exceed the SMAQMD-recommended thresholds of 85 lb/day for NO_X;
- cause construction-generated emissions to exceed 80 lb/day or 14.6 tons/year for PM_{10} and 82 lb/day or 15 tons/year for $PM_{2.5}$ (if all the best available control technologies (BACT) and best management practices (BMT) are applied to construction);
- result in a net increase in long-term operational criteria air pollutant or precursor emissions that exceed the SMAQMD-recommended thresholds of 65 lb/day for ROG and NO_X;
- result in a net increase in long-term operational emission exceeding 80 lb/day or 14.6 tons/year for PM_{10} and 82 lb/day or 15 tons/year for $PM_{2.5}$ (if all the BACT and BMT are applied to construction);

- result in long-term operational local mobile-source CO emissions that would violate or contribute substantially to concentrations that exceed the 1-hour CAAQS of 20 parts per million (ppm) or the 8-hour CAAQS of 9 ppm;
- expose sensitive receptors to a substantial incremental increase in TAC emissions that exceed 10 in one million for carcinogenic risk (i.e., the risk of contracting cancer) and/or a noncarcinogenic hazard index of 1.0 or greater; and/or
- create objectionable odors affecting a substantial number of people.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.2-1: Result in Short-Term Construction Emissions of NO_X, PM_{10} and $PM_{2.5}$

Construction activity associated with proposed land use development would result in emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ which would exceed SMAQMD's construction emissions thresholds for these pollutants. This impact would be **significant**.

Development of new land uses as part of the WBSP would result in construction activities that would generate emissions of criteria air pollutants and precursors, including ROG, NO_X, PM_{10}, and $PM_{2.5}$, from site preparation (e.g., excavation, clearing), off-road equipment, material delivery, worker commute trips, and other miscellaneous activities (e.g., building construction, asphalt paving, application of architectural coatings). Typical equipment used during construction activities could include all-terrain forks, forklifts, cranes, pick-up and fuel trucks, compressors, loaders, backhoes, excavators, dozers, scrapers, pavement compactors, welders, concrete pumps, concrete trucks, and off-road haul trucks, as well as other diesel-fueled equipment, as necessary. Fugitive dust emissions of PM_{10} and $PM_{2.5}$ are associated primarily with site preparation and vary as a function of soil silt content, soil moisture, wind speed, acreage of disturbance, and mobile sources. Emissions of ozone precursors are emitted in the exhaust of construction equipment and on-road vehicles. Paving and the application of architectural coatings also results in off-gas emissions of volatile organic compounds. PM_{10} and $PM_{2.5}$ are also contained in equipment and vehicle exhaust. As discussed previously, specific construction phasing and intensity are unknown. The levels of emissions generated through these activities would depend on the characteristics of individual development projects, including the size and type of land uses being developed, which would determine the length and intensity of construction activity.

Construction activities were estimated to occur incrementally over time. Table 2-1 in Chapter 2, "Project Description," of this EIR details the projected development anticipated under the WBSP. Table 4.2-5, below, summarizes WBSP-generated construction emissions by year.

Table 4.2-5 Modeled Daily Maximum Construction Emissions of Criteria Air Pollutants and Precursors

Construction Phase	Emissions Summary				
	NO_X (lb/day)	PM_{10} (lb/day)	PM_{10} (tpy)	$PM_{2.5}$ (lb/day)	$PM_{2.5}$ (tpy)
2020	34.2	**2.6**	**0.3**	**1.7**	**0.2**
2021	46.5	**20.2**	**2.7**	**11.8**	**1.3**
2022	38.9	**10.5**	**1.6**	**5.1**	**0.7**
2023	**118.2**	**46.6**	**3.4**	**13.3**	**1.1**
2024	**114.5**	**46.5**	**5.9**	**13.2**	**1.7**
2025	**113.8**	**54.3**	**6.1**	**15.2**	**1.7**

Construction Phase	Emissions Summary				
	NO_X (lb/day)	PM_{10} (lb/day)	PM_{10} (tpy)	$PM_{2.5}$ (lb/day)	$PM_{2.5}$ (tpy)
2026	**111.3**	**54.3**	**6.8**	**15.2**	**1.9**
2027	**109.0**	**54.3**	**6.8**	**15.2**	**1.9**
2028	**107.1**	**54.2**	**6.8**	**15.2**	**1.9**
2029	**105.2**	**54.2**	**6.8**	**15.1**	**1.9**
2030	**98.7**	**53.8**	**6.8**	**14.7**	**1.9**
2031	**97.1**	**53.8**	**6.8**	**14.7**	**1.9**
2032	**95.7**	**53.7**	**6.8**	**14.7**	**1.9**
2033	**94.4**	**53.7**	**3.6**	**14.7**	**1.0**
2034	8.8	**8.2**	**1.0**	**2.5**	**0.3**
2035	1.5	**7.8**	**1.0**	**2.1**	**0.3**
Maximum Daily Emissions	**118.2**	**42.3**	**6.8**	**13.3**	**1.9**
SMAQMD Thresholds	85	0[1]	0[1]	0[2]	0[2]
Exceed Significance Threshold?	Yes	Yes	Yes	Yes	Yes

Notes: CO = carbon monoxide; lb/day = pounds per day; tpy = tons per year; NO_X = oxides of nitrogen; $PM_{2.5}$ = fine particulate matter; PM_{10} = respirable particulate matter; ROG = reactive organic gases; SMAQMD = Sacramento Metropolitan Air Quality Management District.

[1] If all feasible BACT/BMPs are applied, then 82 lb/day and 15 tpy.

[2] If all feasible BACT/BMPs are applied, then 80 lb/day and 14.6 tpy.

See Appendix C for detailed input parameters and modeling results.

Source: Modeling performed by Ascent Environmental in 2019.

According to the SMAQMD guidance, projects that do not implement SMAQMD's BMPs must meet a zero peak daily and annual emission threshold for PM_{10} and $PM_{2.5}$. With implementation of SMAQMD's BMPs, the SMAQMD's peak daily and annual thresholds increase to 80 lb/day or 14.6 tons per years (tpy) of PM_{10} and 82 lb/day or 15 tpy of $PM_{2.5}$. As shown above, construction activity associated with implementation of the WBSP is anticipated to generate emissions in exceedance of the established maximum daily (Table 4.2-5) for NO_X, PM_{10}, and $PM_{2.5}$. As a result, the WBSP could cause construction-generated criteria air pollutant or precursor emissions to exceed the SMAQMD-recommended thresholds. This impact would be **significant**.

Mitigation Measures

Mitigation Measure 4.2-1a: Implement SMAQMD's Basic Construction Emission Control Practices

For all future land use development applications processed within the Specific Plan Area, each project applicant or its designee shall require its construction contractors to implement SMAQMD's Basic Construction Emission Control Practices including the following:

- water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads;
- cover or maintain at least two feet or free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered;
- use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited;

- limit vehicle speeds on unpaved roads to 15 miles per hour (mph);
- complete construction of all roadways, driveways, sidewalks, parking lots as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;
- minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site; and
- maintain all construction equipment is in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.

These measures shall be included as conditions of approval.

Mitigation Measure 4.2-1b: Reduce Construction-Related Exhaust and Dust Emissions

For all future land use development applications processed within the Specific Plan Area, before the issuance of grading and/or building permits, each project applicant or its designee shall submit to the City and SMAQMD an initial report of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used 8 hours or more during any portion of the construction project before any grading activities. The initial report shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment. The project applicant shall provide the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. The information shall be submitted at least 4 business days before the use of subject heavy-duty off-road equipment. The report shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs.

Before any grading activities, the project applicant or its designee shall provide a plan for approval by the County and SMAQMD demonstrating that the heavy-duty off-road vehicles (50 horsepower or more) to be used during construction, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet-average of 10 percent NO_X reduction (depending on available technology and engine Tier) compared to the most recent CARB fleet average. This plan shall be submitted in conjunction with the equipment inventory. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. If achievement of the aforementioned reductions over the statewide average are deemed infeasible by the City, SMAQMD, or construction contractor, the Applicant shall ensure the construction fleet meets the lowest fleetwide emissions average possible, through the use of all available on-site emissions reduction measures (e.g., highest tier engines, emission control devices, cleaner burning fuel).

The project applicant or its designee shall submit a final report at the end of the job, phase, or calendar year, as pre-arranged with SMAQMD staff and documented in the approval letter, to demonstrate continued project compliance. If modeled construction-generated emissions of NO_X are not reduced to a level below SMAQMD's thresholds of significance by the application of the aforementioned mitigation measures, then the project developer must pay a mitigation fee into SMAQMD's off-site mitigation program. By paying the appropriate off-site mitigation fee, construction-generated emissions of NO_X would be reduced to a less-than-significant level. The fee calculation to offset daily NO_X emissions shall be based on the SMAQMD-determined cost to reduce one ton of NO_X applicable at the time (currently $30,000 per ton but subject to change in future years).

Once initial construction activities are finalized by a project applicant and before the issuance of grading and/or building permits, quantification of construction-related emissions shall be verified at the project level. As each project-level construction phase is finalized throughout the duration of the project buildout, the mitigation fee shall be calculated based on current information, available construction equipment, and proposed construction activities. As construction activities occur over the buildout period, the developer shall work with SMAQMD to continually update mitigation fees based on actual on-the-ground emissions. The final mitigation fees shall be based on the contractor equipment report provided by the developer to SMAQMD and shall reconcile any fee discrepancies due to schedule adjustments, and increased or decreased equipment inventories. Equipment inventories and NO_X emission estimates for subsequent construction phases shall be coordinated with SMAQMD, and the off-site mitigation fee measure shall be assessed to any construction phase that would result in an exceedance of SMAQMD's mass emission threshold for NO_X.

Significance after Mitigation

With implementation of SMAQMD's Basic Construction Emission Control Practices Proposed dust control measures, the emissions thresholds for PM_{10} and $PM_{2.5}$ would be 80 lb/day or 14.6 tpy of PM_{10} and 82 lb/day or 15 tpy of $PM_{2.5}$. As shown in Table 4.2-5, modeled PM_{10} and $PM_{2.5}$ emissions would fall below the adjusted thresholds. Therefore, PM_{10} and $PM_{2.5}$ emissions resulting from construction of new uses under the WBSP would not exceed applicable thresholds and construction associated with the WBSP would not contribute substantially to the nonattainment status of the SVAB.

With respect to NO_X emissions, Table 4.2-6 includes the anticipated reduction (10 percent) in NO_X emissions that would be achievable through implementation of Mitigation Measure 4.2-1b. Table 4.2-6 also includes the total tons per year of NO_X emissions that would still exceed the threshold after this portion of the mitigation measure is implemented and may need to be offset through SMAQMD's mitigation fee program as part of Mitigation Measure 4.2-1b.

Table 4.2-6 Modeled NO_X Construction Emissions with Mitigation

Construction Year	Maximum Daily and Annual Emissions				
	NO_X (lb/day)	NO_X (lb/day) + 10% Reduction	NO_X (lb/day) above Threshold	Days of Exceedance (days/yr)	NO_X (tons/yr) above Threshold
2020	34.2	30.8	-	-	-
2021	46.5	41.8	-	-	-
2022	38.9	35.0	-	-	-
2023	**118.2**	**106.4**	21.4	255	2.7
2024	**114.5**	**103.1**	18.1	255	2.3
2025	**113.8**	**102.4**	17.4	255	2.2
2026	**111.3**	**100.2**	15.2	255	1.9
2027	**109.0**	**98.1**	13.1	255	1.7
2028	**107.1**	**96.4**	11.4	255	1.4
2029	**105.2**	**94.7**	9.7	255	1.2
2030	**98.7**	**88.8**	3.8	255	0.5
2031	**97.1**	**87.4**	2.4	255	0.3
2032	**95.7**	**86.1**	1.1	255	-
2033	**94.4**	85.0	-	-	-
2034	8.8	7.9	-	-	-

Construction Year	Maximum Daily and Annual Emissions				
	NO_X (lb/day)	NO_X (lb/day) + 10% Reduction	NO_X (lb/day) above Threshold	Days of Exceedance (days/yr)	NO_X (tons/yr) above Threshold
2035	1.5	1.4	-	-	-
Maximum Daily Emissions	**118.2**	**106.4**	N/A	N/A	N/A
SMAQMD Thresholds	85	85	N/A	N/A	N/A
Exceed Significance Threshold?	Yes	Yes	Yes	N/A	N/A

Notes: CO = carbon monoxide; lb/day = pounds per day; NO_X = oxides of nitrogen; PM2.5 = fine particulate matter; PM_{10} = respirable particulate matter; ROG = reactive organic gases; SMAQMD = Sacramento Metropolitan Air Quality Management District.

[1] If all feasible BACT/BMPs are applied, then 82 pounds/day and 15 tons/year.

[2] If all feasible BACT/BMPs are applied, then 80 pounds/day and 14.6 tons/year.

Numbers in bold are years in which the emissions are above the SMAQMD threshold.

See Appendix C for detailed input parameters and modeling results.

Source: Modeling performed by Ascent Environmental in 2019.

Payment into SMUD's mitigation fee program would provide funding for SMAQMD to implement emission reduction projects in the SVAB, such as installing newer engines on off-road equipment or installing EPA-certified woodstoves in the place of non-certified woodstoves in residential units. Nonetheless, at the time of writing this Draft EIR, the purchase of these offsets would reduce construction-generated NO_X levels below the SMAQMD construction emission threshold. This impact would be **less-than-significant with mitigation**.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development opportunities within Miller Regional Park. Scenario B option would result in less development within the Specific Plan Area and, therefore, would result in less emissions of criteria air pollutants during construction of new uses. Given the magnitude of new land uses to be developed under both the proposed WBSP and the Scenario B option, Mitigation Measures 4.2-1(a) and 4.2-1(b) would still apply for individual developments in the Specific Plan Area under the Scenario B option. This impact would be **less than significant with mitigation**.

Impact 4.2-2: Result in Long-Term Operational Emissions of NO_X, ROG, PM_{10}, and $PM_{2.5}$

Implementation of the WBSP could result in operational emissions associated with the operation of new land uses within the Specific Plan Area. These activities would result in emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ that would exceed applicable thresholds established by SMAQMD. However, the WBSP does include policies that would help reduce emissions of air pollutants. Nonetheless, emissions associated with the operation of new uses under the WBSP would exceed SMAQMD's air pollutant thresholds, and therefore, would violate an existing air quality standard. This impact would be **significant**.

Implementation of the WBSP would result in the operation of new land uses within the Specific Plan Area, resulting in long-term operational emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$. Operational emissions would be generated from area sources (e.g., landscaping-related fuel combustion sources, the periodic application of architectural coatings, and the use of consumer products), energy use (e.g. electricity and natural gas use), and from additional vehicle trips associated with new development. Table 4.2-7 summarizes the maximum daily operation-related emissions of criteria air pollutants and precursors and the daily significance thresholds established by SMAQMD. Refer to Impact 4.2-3 for a discussion of CO.

Table 4.2-7 Summary of Maximum Operational Emissions of Criteria Air Pollutants and Precursors

Source Type	Maximum Daily Emissions (lb/day)			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	141.2	4.6	2.2	2.2
Energy	1.6	14.1	1.1	1.1
Mobile	30.7	177.2	166.8	45.0
Total	**173.5**	**196.0**	**170.2**	**48.4**
SMAQMD Threshold	65	65	**0**[1]	**0**[2]
Exceed Significance Threshold?	Yes	Yes	Yes	Yes

Notes: Total values may not add correctly due to rounding.

CO = carbon monoxide; lb/day = pounds per day; N/A = not applicable; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; ROG = reactive organic gases; SMAQMD = Sacramento Metropolitan Air Quality Management District.

[1] If all feasible BACT/BMPs are applied, then 82 pounds/day and 15 tons/year.

[2] If all feasible BACT/BMPs are applied, then 80 pounds/day and 14.6 tons/year.

See Appendix C for detailed input parameters and modeling results.

Source: Modeling performed by Ascent Environmental in 2019.

As shown in Table 4.2-7, operation-related activities would result in additional emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ that would exceed the thresholds set by SMAQMD. Projects that emit criteria air pollutants in exceedance of SMAQMDs thresholds would contribute to the regional degradation of air quality within the Plan Area that could result in adverse human health impacts. Acute exposure to criteria air pollutants can cause coughing, chest pain, shortness of breath, eye and throat irritation, lung scarring, and may aggravate preexisting cardiovascular and respiratory illness (e.g., asthma). Chronic exposure to criteria pollutants may result in permanent lung and heart impairment, chronic coughing, cancer, decreased immune function in children, and premature death.

The WBSP includes the following goals, policies, and guidelines which are intended, in part, to reduce emissions associated with new development within the Specific Plan Area. These policies are intended to reduce VMT generated by new land uses and to reduce building energy consumption.

- **7.2 Circulation Goals and Policies**
  - **Safe and Accessible Streets:** Policy M-2.2: Design new residential roadways with clearly marked crosswalks, streetlights, and traffic calming where vehicular priority can be reduced and bike and pedestrian priority emphasized, minimizing traffic impacts into Specific Plan and existing residential neighborhood areas.
  - **Development Standards and Design Guidelines**
    - **9.2 Urban Design Framework:** A Traditional Street Grid and Block Pattern. A traditional street grid and block pattern will be created by extending the Central City grid into the Specific Plan Area, which supports walkable neighborhood blocks and introduces the connective tissue to support safe and efficient vehicular, bike, and pedestrian access and movement. To discourage cut-through traffic through the center of residential areas, traffic calming devices, such as traffic circles or other approaches should be implemented and the preferred routes for vehicular circulation highlighted with directional signs. On-street parking, parking sited behind buildings, and screening of parking areas will promote a pedestrian-oriented neighborhood environment.

- **7.4 Pedestrian Circulation System**
  - **7.4.2 Planned Improvements:** An interconnected pedestrian network is planned for the Specific Plan Area created through new greenways within the open space network and walkways that will be provided along the improved street grid within the Specific Plan Area. This pedestrian network allows residents to conveniently walk from their homes to open space amenities, schools, transit, retail, and other neighborhood services in the local vicinity. The City's Pedestrian Master Plan also identifies 5th Street and Muir Way to be designed as enhanced pedestrian facilities. Opportunities to widen the sidewalks and provide additional bike and pedestrian amenities on these streets is recommended. The bike/pedestrian paseo created on the north end of Muir Way provides an opportunity for a shaded open space or plaza space with a bike and pedestrian gateway into the neighborhood.
- **7.5.3 Planned Improvements**
  - Enhanced Class II buffered bike lanes planned along the length of Broadway
  - Class I bike trails, west of 5th Street, linking neighborhoods to the new parks in The Mill at Broadway and Marina Vista subareas and to schools for safe neighborhood routes to schools
  - A distributed network of Class II bike lanes through the neighborhood created along 3rd Street, 5th Street, 7th Street/ McClatchy Way, and Crate Avenue
  - Class III bike routes closing gaps in the bicycle network to connect with Vallejo Way
- **9.3 Sustainability: Sustainable Design Principles**
  - **Walkable, Pedestrian-Friendly Neighborhood Design**
    - Wide sidewalks and active street uses
    - Pedestrian-scaled architecture and pedestrian amenities
    - Continuation, additions to the urban canopy
- **9.5.1 Neighborhood Form**
  - **Walkable Neighborhood Block and Street Grid Pattern**
    - **Guideline 1:** Multimodal Blocks and buildings are encouraged to be laid out in a pattern that enables units to maximize solar access and incorporate features, such as solar panels, natural daylighting, and podium or rooftop gardens.
  - **Building Articulation and Details**
  - **Guideline 5:** Energy conservation strategies, including window shading devices, selection of colors to reduce heat gain, energy efficient windows, cool roofs, high-quality insulation and radiant barriers, solar panels, and whole house energy systems are encouraged, to reduce energy consumption associated with heating and air conditioning during winter and summer months.
  - **Guideline 14:** Photovoltaic solar panels or solar shingles are also encouraged, to generate energy for home use and reduce reliance on grid power.

- **9.6 Residential Design**
  - **Common and Private Open Space**
    - On-site pedestrian circulation should connect all units to common open space and neighborhood sidewalks and paths.

The goals, policies, and guidelines listed above would help to reduce emissions associated with new development as part of WBSP implementation by encouraging trips to be made by modes other than single-occupancy vehicles, particularly for local trips. The policies are intended, in part, to reduce new VMT associated with implementation of the WBSP and reduce emissions from mobile sources. The policies would also encourage reductions in energy use associated with new development. However, it is not possible to determine the exact level emission that will be reduced through these policies because it is not known through what mechanisms and to what degree these policies will be implemented for individual development projects.

When the allowable development under the WBSP is considered together, it is estimated that the total emissions attributable to growth allowed within the Specific Plan Area would exceed the applicable thresholds for ROG, NO_X, PM_{10}, and $PM_{2.5}$ and represents a considerable contribution to cumulative air pollutant emissions within the SVAB. This impact would be **significant.**

Mitigation Measures

SMAQMD requires land use projects exceeding operational emissions thresholds to follow the Recommended Guidance for Land Use Emission Reductions and develop and implement an Air Quality Mitigation Plan (AQMP) to reduce operational emissions. Additionally, each development proposed as part of WBSP implementation would be required to comply with the policies of the 2035 General Plan. Policy ER 6.1.3 requires individual development projects that would exceed the SMAQMD ROG and NO_X operational thresholds of 65 lb/day to incorporate design or operational features that result in at least a 15 percent reduction in emissions; and Policy ER 6.1.2 requires City review of proposed development projects to ensure construction and operation of projects incorporate feasible measures that reduce emissions through project design (e.g., measures contained in SMAQMD's Recommended Guidance for Land Use Emission Reductions [SMAQMD 2016a]) Both of these policies are essentially in line with what is required from SMAQMD for the development of an AQMP. Mitigation Measure 4.2-1 below includes details about the AQMP and the mitigation measures required to implemented as part of this EIR that are included in the AQMP.

Mitigation Measure 4.2-2: Implement Provisions of the Air Quality Mitigation Plan to Reduce Operational Emissions

Project applicants for individual projects within the Specific Plan Area shall comply with the recommended measures of the WBSP's AQMP, which would reduce the project's operational ozone precursors from mobile sources by 15 percent in comparison to the unmitigated project. Section 7.1 of the AQMP includes specific language about how this mitigation measure will be implemented and requirements for compliance with the measure.

Significance after Mitigation

Implementation of Mitigation Measure 4.2-2 requires the project to comply with all provisions included in the AQMP. The measure in the AQMP, as well as other project design features included in the Project, will reduce emissions by 15 percent compared to an unmitigated project scenario and, therefore, comply with the requirements of the AQMP. The adequacy of the AQMP shall be verified by SMAQMD through a formal letter certifying that the reductions achieve the 15 percent reduction target. However,

complying with SMAQMD guidance would not inherently result in a less-than-significant impact as emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ and could still be in exceedance of the SMAQMD mass emissions thresholds for operational emissions. For this project, compliance with SMAQMD's AQMP requirement would not be sufficient to reduce emissions of NO_X and PM_{10} to levels below the applicable operational thresholds of significance, as shown in the AQMP (See Appendix C). Thus, operational emissions of criteria air pollutants and ozone precursors would be **significant and unavoidable**.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing marina and result in lesser development opportunities within the Marina/Miller Regional Park Special Study Area. Although Scenario B would result in less overall development within the Specific Plan Area, criteria air pollutants are still anticipated to exceed SMAQMD thresholds during operation of new development, similar to the proposed WBSP. Similar to the proposed WBSP, no additional mitigation measures are available and this impact would remain **significant and unavoidable**.

Impact 4.2-3: Generation of Local Mobile-Source CO Emissions

Long-term operational mobile-source emissions of CO generated by vehicle trips associated with implementation of the WBSP would not violate or contribute substantially to localized concentrations of CO that exceed the CAAQS or NAAQS for CO. The traffic volume increases under the WBSP would not result in affected intersections experiencing more than 31,600 vehicles per hour and, therefore, would not exceed CO hotspot concentration thresholds. This impact would be **less than significant**.

Local mobile-source CO emissions near roadway intersections are a direct function of traffic volume, vehicle speed, and traffic delay. A CO hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. Transport of CO is extremely limited because it disperses rapidly with distance from the source under normal meteorological conditions. However, under stable meteorological conditions, CO concentrations near roadways and/or intersections may reach unhealthy levels, adversely affecting nearby sensitive land uses, such as residential units, hospitals, schools, and childcare facilities. CO is a pollutant of localized concern and, therefore, is analyzed at the local level. Construction activities are rarely a cause of localized CO impacts because they do not typically result in substantial traffic increases at any one location. SMAQMD has developed a screening criteria methodology for exposure to CO hotspot.

Under the first tier of SMAQMD screening criteria, a project would result in a less-than-significant impact to air quality for local CO if traffic generated by a project would not result in deterioration of intersection level of service (LOS) to LOS E or F and the project would not contribute additional traffic to an intersection that already operates at LOS E or F. Based on the traffic study prepared for the WBSP, numerous intersections would experience LOS E or F with implementation of the WBSP. See Table 4.12-6 in the Section 4.12, "Transportation," which includes a list of all intersections evaluated as part of the evaluation of transportation impacts of the WBSP. Based on the LOS modeling conducted for the WBSP, the intersections that would experience the largest degradation in LOS include:

- Broadway and Front Street would experience a decrease from LOS A to F for the p.m. peak hour.
- Broadway and 3rd Street would experience a decrease from LOS A to F for the p.m. peak hour.
- Broadway and 8th Street would experience a decrease from LOS A to E for the p.m. peak hour.
- X Street and 3rd Street would experience a decrease from LOS A to F for the p.m. peak hour.

Based on SMAQMD criteria, if the first tier of SMAQMD screening criteria is exceeded, then the second tier of screening criteria is examined. Under the second screening tier, a project would result in a less-than-significant CO impact if the project would not cause an affected intersection to result inexperience more than 31,600 vehicles per hour. Based on the traffic study modeling conducted for the WBSP, the intersections listed above would experience the following peak hour volumes with implementation of the WBSP:

- Broadway and Front Street: 1,080 vehicles per hour during the p.m. peak hour.
- Broadway and 3rd Street: 2,100 vehicles per hour during the p.m. peak hour.
- Broadway and 8th Street: 2,115 vehicles per hour during the p.m. peak hour.
- X Street and 3rd Street: 1,320 vehicles per hour during the p.m. peak hour.

As noted above, SMAQMD's established screening criteria for CO hotspots is 31,600 vehicles per hour, which means that the peak hourly volume of traffic at these intersection would be less than what is required to be considered a potential CO hotspot. As these are the intersections where the highest traffic volumes are anticipated, all other intersections in the Specific Plan Area would, likewise, not exceed the 31,600 vehicle per hour threshold. Therefore, implementation of the WBSP would not result in additional vehicle congestion at intersections within the City that could result in a CO hotspot, and WBSP-generated local mobile-source CO emissions would not result in, or substantially contribute to, concentrations of CO that exceed the 1-hour or 8-hour CAAQS and NAAQS. As a result, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing marina and result in lesser development opportunities within Marina/Miller Regional Park Special Study Area. Scenario B option would result in less overall development within the Specific Plan Area and lower traffic volumes on affected roadways. As a result, local mobile-source CO emissions generated under Scenario B are not anticipated to result in, or substantially contribute to, concentrations of CO that exceed the 1-hour or 8-hour CAAQS and NAAQS. Similar to the proposed WBSP, this impact would be **less than significant**.

Impact 4.2-4: Short-Term and Long-Term Exposure to Toxic Air Contaminants

Neither the short-term construction nor the long-term operation of land uses anticipated under the WBSP would result in the exposure of sensitive receptors to excessive toxic air contaminant (TAC) emissions that exceed SMAQMD's significance threshold. Therefore, impacts related to exposure of sensitive receptors to TACs would be **less than significant**.

Diesel PM was identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of diesel PM outweighs the potential for all other health impacts (i.e., noncancer chronic risk, short-term acute risk) and health impacts from other TACs (CARB 2015). Thus, diesel PM is the focus of this analysis. With regards to exposure of diesel PM, the dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher level of health risk for any exposed receptor. According to Office of Environmental Health Hazard Assessment's 2015

guidance, exposure of sensitive receptors to TAC emissions should be based on a 30-year exposure period for estimating cancer risk at the Maximum Exposed Individual (MEI), with 9- and 70-year exposure periods at the MEI as supplemental information. Furthermore, a 70-year exposure period is required for estimating cancer burden or providing an estimate of population-wide risk (OEHHA 2015:8-1). In addition, studies show that diesel PM is highly dispersive and that concentrations of diesel PM decline with distance from the source (e.g., 500 feet from a freeway, the concentration of diesel PM decreases by 70 percent) (Roorda-Knape et al. 1999; Zhu et al. 2002) These studies illustrate that diesel PM is highly dispersive and that receptors must be near emission sources for a long period to experience exposure at concentrations of concern.

Construction Emissions

Construction activities that would result from implementation of the Project would generate temporary, intermittent emissions of diesel PM from the exhaust of off-road heavy-duty diesel equipment used for site preparation (e.g., demolition, clearing, grading), paving, application of architectural coatings, on-road truck travel, and other miscellaneous activities. Given that the project includes a large set of new land uses in the Specific Plan Area, it not known at this time when development of these land uses will occur during the lifetime of the project. As a specific plan, it is anticipated that build out of these land uses will occur over long period of time with the timing for development of these land uses dependent on market forces. Based on the construction emissions modeling, maximum daily emission of diesel PM would be two pounds per day. Considering that modeled daily emissions of diesel PM are low, no single receptor would be exposed to TACs for extended periods of time.

There are groups of multi-family dwelling units in the eastern, central, and southern portion of the Project area as well as an elementary school located in the central portion of the Specific Plan Area. Given the temporary and intermittent nature of construction activities likely to occur within specific locations in the Specific Plan Area (i.e., construction is not likely to occur in any one part of the WBSP area for an extended time), the dose of diesel PM of any one receptor is exposed to would be limited. Therefore, considering the relatively short duration of diesel PM-emitting construction activity at any one location of the Specific Plan Area and the highly dispersive properties of diesel PM, sensitive receptors would not be exposed to substantial concentrations of construction-related TAC emissions.

Operational Emissions

Implementation of the WBSP would result in the operation of additional land uses within the Specific Plan Area, which would have a corresponding increase in vehicle trips and diesel PM emissions in and around the Specific Plan Area. In particular, diesel-powered trucks associated with the potential commercial and mixed-use land uses in the northern portion of the Specific Plan Area could contribute additional diesel PM emissions. With implementation of the WBSP, daily maximum emissions of diesel PM would be approximately four pounds per day. However, these emissions would be generated by new vehicle trips within the Sacramento region with only a small portion of these trips occurring within the Specific Plan Area near sensitive receptors. As a result, the actual concentration near sensitive land uses associated with implementation of the WBSP would be minimal, and implementation of the WBSP would not result in exposure of new or existing sensitive receptors to TACs from regular and frequent visits by diesel-powered haul trucks. Further, the WBSP does not involve a net increase in industrial land uses that could generate TAC emission or result in the long-term operation of any stationary sources which generate substantial TACs.

Considering the highly dispersive properties of diesel PM, the relatively low mass of diesel PM emissions that would be generated at any single place during the construction and operation of new land uses under the WBSP and the relatively short period during which diesel PM-emitting construction activity would take place, WBSP-related TACs are not anticipated to result in the exposure of sensitive

receptors to an incremental increase in cancer risk that exceeds 10 in one million or a hazard index of 1.0 or greater As a result, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing marina and result in lesser development opportunities within Marina/Miller Regional Park Special Study Area. As the Scenario B option would result in less overall development within the Specific Plan Area, less construction and operational traffic volumes would occur. While this would result in fewer emissions proximate to sensitive receptors than the proposed WBSP, implementation of the Scenario B option would result in a similar incremental increase in TAC emissions that would not be considered substantial, similar to the proposed WBSP. This impact would be **less than significant**.

Impact 4.2-5: Creation of Objectionable Odors Affecting a Substantial Number of People

Neither the short-term construction nor the long-term operation of new land uses associated with implementation of the WBSP would result in the exposure of sensitive receptors to excessive odors. This impact would be considered **less than significant.**

The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the affected receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public, and they often generate citizen complaints to local governments and regulatory agencies. SMAQMD has developed a list odor sources of concern as well as screening distances for each facility type to be used in the environmental review process to identify any potential odor issues. The list includes wastewater treatment plants, sanitary landfills, composting facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting operations, rendering plants, and food packaging plants (SMAQMD 2016b). As noted in Section 4.2.2 above, there are currently no odor sources identified in this list within the Specific Plan Area. Further, the potential land uses associated with the WBSP do not include any land uses (e.g., industrial) that are typically associated with substantial odors or included in the SMAQMD's odor sources list. In addition, should a new odor source be proposed within the Specific Plan Area, SMAQMD's Rule 402 "Nuisance" restricts the emission of air contaminants or other materials that would cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public. As a result, any odor sources cited in the Specific Plan Area would be required to implement specific actions to remain in compliance with SMAQMD Rule 402.

Minor odors from the use of heavy-duty diesel equipment and the laying of asphalt during construction activities would be intermittent and temporary. Due to the characteristics of diesel exhaust emission, odors generated from the use of heavy-duty diesel equipment would dissipate rapidly within 150 meters (492 feet) (Zhu et al. 2002). While construction would occur intermittently between 2020 and 2035, these types of odor-generating activities would not occur at any single location, or within close proximity to the same off-site receptors, for an extended period of time and would not result in permanent odor sources. Therefore, construction is not anticipated to result in substantial odors.

New non-residential land uses that could be developed under the WBSP would not allow for the siting of any odor sources identified in SMAQMD's odor source list. The use of heavy-duty diesel equipment for development of land uses in the Specific Plan Area are not anticipated to result in substantial odors.

As a result, implementation of the WBSP would not result in odor impacts on existing sensitive receptors or future sensitive receptors. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing marina and result in lesser development opportunities within Marina/Miller Regional Park Special Study Area. Similar to the proposed WBSP, Scenario B would not result in the use of heavy-duty diesel equipment that would result in substantial odors. Additionally, new non-residential land uses that may occur under the Scenario B option would not involve the siting of any odor sources identified in SMAQMD's odor source list. As a result, implementation of the Scenario B option would not result in odor impacts on existing sensitive receptors or future sensitive receptors, similar to the proposed WBSP. This impact would be **less than significant**.

CUMULATIVE IMPACTS

Impact 4.2-6: Potential for Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Air Quality

Implementation of the WBSP, in combination with other cumulative development in the area, would involve an intensification of development and redevelopment activities within and in the vicinity of the Specific Plan Area, which could contribute to cumulatively air quality impacts in the area. As implementation of the WBSP, as a whole, would result in operational emissions that exceed SMAQMD thresholds, development under the WBSP would therefore be cumulatively considerable. Impacts would be **significant**.

Ozone precursors emitted anywhere in the SVAB can affect ozone air quality in the basin. Therefore, the WBSP's cumulative context for ozone precursor emissions would be existing and future development within the entire SVAB. In contrast, CO, TAC, and odor effects are much more limited to the immediate vicinity of their specific sources and are not considered cumulatively considerable beyond the analysis presented above.

The SVAB is in nonattainment status for ozone, PM_{10}, and $PM_{2.5}$. This is a result of past cumulative development in the basin, as well as transport of pollutants from other basins. New development, including that associated with the WBSP, would be required to comply with SMAQMD thresholds and requirements to reduce potential new construction emissions of criteria pollutants and precursors. As noted above, construction-related emissions of criteria pollutants associated with new uses under the WBSP would be below SMAQMD's applicable thresholds with implementation of Mitigation Measures 4.2-1a and 4.2-1b. Therefore, the contribution of construction activities as part of implementation of the WBSP to regional criteria pollutant emissions within the SVAB would not be considerable.

Implementation of the WBSP would result in the generation of long-term operational emissions of ROG, NO_X, and particulate matter (PM_{10} and $PM_{2.5}$) because of mobile, stationary, and area-wide emissions associated with new land uses within the Specific Plan Area. Mobile-source emissions of criteria air pollutants and precursors would result from vehicle trips generated by residents, employee commute trips, trips generated from the commercial land uses, and other associated vehicle trips (e.g., delivery of supplies, maintenance vehicles for commercial and retail land uses). Stationary and area-wide sources would include the combustion of natural gas for space and water heating (i.e., energy use), the use of

landscaping equipment and other small equipment, the periodic application of architectural coatings, and ROG from the use of consumer products. As discussed in Impact 4.2-2, the project would result in operational activity that would exceed SMAQMD's emission threshold for ROG, NO_X, PM_{10}, and $PM_{2.5.}$, even with implementation of Mitigation Measure 4.2-2. Projects that emit criteria air pollutants in exceedance of SMAQMD's thresholds would contribute to the regional degradation of air quality within the SVAB and would be considered cumulatively considerable. Because the WBSP's contribution to the potential cumulative impact related to criteria pollutant emissions during operation would be considered cumulatively considerable, cumulative impacts would be **significant**.

Mitigation Measures

No additional feasible mitigation is available to reduce the project's contribution to less than cumulatively considerable.

Significance after Mitigation

As noted above and in Impact 4.2-2, Mitigation Measure 4.2-2 would reduce project emissions but not reduced to a level that reduces the WBSP's contribution to emissions less than cumulatively considerable. Impacts would remain **significant and unavoidable**.

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4.3 BIOLOGICAL RESOURCES

This section addresses common and sensitive biological resources that could be affected by implementation of the WBSP. The analysis includes a description of the existing environmental conditions, the methods used for assessment, the potential impacts associated with implementing the project, and mitigation measures proposed to reduce significant and potentially significant impacts. This section also includes a brief overview of the federal, State, and local laws and regulations pertaining to the protection of biological resources in Sacramento County.

The biological resources information presented in this section is based on data collected during a reconnaissance-level survey of the project site conducted on May 9, 2019 and biological resource databases. Information sources reviewed include:

- The California Department of Fish and Wildlife's (CDFW's) California Natural Diversity Database (CNDDB) records search of the Sacramento West and 8 surrounding USGS 7.5-minute quadrangles (CDFW 2019).
- California Native Plant Society's (CNPS's) online Inventory of Rare and Endangered Plants of California for Sacramento West and 8 surrounding USGS 7.5-minute quadrangles (CNPS 2019).
- The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Trust Resource report species list for the project site (USFWS 2019a).
- Final designated critical habitat as mapped by the USFWS Environmental Conservation Online System (ECOS) (USFWS 2019b).

During public review of the Notice of Preparation for the EIR, comments were received from the Central Valley Regional Water Quality Control Board (CVRWQCB) regarding applicable regulations to waters of the state and water quality and permitting requirements.

4.3.1 Regulatory Setting

FEDERAL

Federal Endangered Species Act

Section 9 of the federal Endangered Species Act (ESA) prohibits "take" of federally listed threatened and endangered species. The ESA defines "take" as any action that would harass, harm, pursue, hunt, shoot, wound, kill, injure, trap, capture, or collect any listed species. "Harm" includes significant habitat modification that could result in injury or death to a species. Federal projects, federally funded projects, or projects requiring a federal permit must comply with the ESA through consultation with USFWS or the National Oceanic and Atmospheric Administration-National Marine Fisheries Service, or both. If a proposed non-federal project may result in take of a listed species, and there is no nexus with any federal agency (e.g., no federal funding or other authority), an Incidental Take Permit under Section 10(a)(1)(B) of the ESA is required; a habitat conservation plan must accompany the permit application.

Clean Water Act Section 404

Areas meeting the regulatory definition of *waters of the United States* are subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE). These waters may include all waters "used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate

waters, all other waters (e.g., intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, and natural ponds), all impoundments of waters otherwise defined as waters of the United States, tributaries of waters otherwise defined as waters of the United States, the territorial seas, and wetlands adjacent to waters of the United States" (33 Code of Federal Regulations [CFR], Part 328, Section 328.3). The USACE, under provisions of Section 404 of the Clean Water Act (1972) (CWA) and Section 10 of the Rivers and Harbors Act (1899), has jurisdiction over waters of the United States. Waters thus regulated are termed "jurisdictional waters." Impacts to jurisdictional waters, including wetlands (a special category of water of the United States), require a permit from the USACE and typically require mitigation. Impacts to wetlands often require compensation in-kind to ensure no net loss of extent and function of wetlands.

Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) provides for protection of all marine mammals (whales, dolphins, seals and sea lions) in the United States. The MMPA provides that it shall be unlawful, with certain permitted exceptions, to take a marine mammal in waters of the United States. Under the MMPA, "take" is defined as "to harass, hunt, capture, collect, or kill, or attempt to harass, hunt, capture, collect, or kill any marine mammal."

STATE PLANS, POLICIES, AND REGULATIONS

California Endangered Species Act

Section 2080 of the California Endangered Species Act (CESA) prohibits "take" of state-listed threatened and endangered species. The CESA defines take as any action or attempt to hunt, pursue, catch, capture, or kill any listed species. If a proposed project may result in "take" of a listed species, a permit pursuant to Section 2080 of CESA is required from CDFW. Take of state-listed species is authorized through Section 2081 through a permit process. Take can also be authorized through Section 2835 with an approved Natural Community Conservation Plan.

Porter-Cologne Water Quality Control Act

Areas meeting the regulatory definition of *waters of the state* are subject to the jurisdiction of the CVRWQCB. *Waters of the state* means any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code, Chapter 2, 13050(e)). Any person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system, must file a report of waste discharge with the appropriate regional board (California Water Code, Article 4, 13260(a)(1)).

California Fully Protected Species

In the 1960s, before CESA was enacted, the California Legislature identified species for specific protection under the California Fish and Game Code. These *fully protected* species may not be taken or possessed at any time, and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research, and relocation of the bird species for the protection of livestock. Fully protected species are described in Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code. These protections state that "…no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected [bird], [mammal], [reptile or amphibian], or [fish]."

California Fish and Game Code Section 1602

Activities that result in the diversion or obstruction of the natural flow of a stream, substantially change its bed, channel or bank, or utilize any materials (including vegetation) from the streambed, require that the

project applicant enter into a Streambed Alteration Agreement with CDFW pursuant to Section 1602 of the California Fish and Game Code. The definition of streams includes "intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams, and watercourses with subsurface flows." Canals, aqueducts, irrigation ditches, and other means of water conveyance can also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife.

California Fish and Game Code Section 3503, Bird Nests and Birds of Prey

Bird nests are protected in California under Section 3503 of the California Fish and Game Code. Section 3503 states that 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." Disturbance during the breeding season can result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered take by CDFW.

Section 3503.5 of the Code specifies 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."

LOCAL

Sacramento 2035 General Plan

The *Sacramento 2035 General Plan* Environmental Resources Element (City of Sacramento 2015) includes the following policies that may apply to biological resources on the project site that would be affected by implementation of the project:

GOAL ER 2.1: Natural and Open Space Protection. Protect and enhance open space, natural areas, and significant wildlife and vegetation in the City as integral parts of a sustainable environment within a larger regional ecosystem.

- **Policy ER 2.1.1: Resource Preservation.** The City shall encourage new development to preserve on-site natural elements that contribute to the community's native plant and wildlife species value and to its aesthetic character.
- **Policy ER 2.1.2: Conservation of Open Space.** The City shall continue to preserve, protect, and provide appropriate access to designated open space areas along the American and Sacramento Rivers, floodways, and undevelopable floodplains, provided access would not disturb sensitive habitats or species.
- **Policy ER 2.1.3: Natural Lands Management.** The City shall promote the preservation and restoration of contiguous areas of natural habitat throughout the city and support their integration with existing and future regional preserves.
- **Policy ER 2.1.4: Retain Habitat Areas.** The City shall retain plant and wildlife habitat areas where there are known sensitive resources (e.g., sensitive habitats, special-status, threatened, endangered, candidate species, and species of concern). Particular attention shall be focused on retaining habitat areas that are contiguous with other existing natural areas and/or wildlife movement corridors.
- **Policy ER 2.1.5: Riparian Habitat Integrity.** The City shall preserve the ecological integrity of creek corridors, canals, and drainage ditches that support riparian resources by preserving native plants and, to the extent feasible, removing invasive nonnative plants. If not feasible, adverse

impacts on riparian habitat shall be mitigated by the preservation and/or restoration of this habitat in compliance with State and Federal regulations or at a minimum 1:1 ratio, in perpetuity.

- **Policy ER 2.1.6: Wetland Protection.** The City shall preserve and protect wetland resources including creeks, rivers, ponds, marshes, vernal pools, and other seasonal wetlands, to the extent feasible. If not feasible, the mitigation of all adverse impacts on wetland resources shall be required in compliance with State and Federal regulations protecting wetland resources, and if applicable, threatened or endangered species. Additionally, the City shall require either on- or off-site permanent preservation of an equivalent amount of wetland habitat to ensure no-net-loss of value and/or function.

- **Policy ER 2.1.8: Oak Woodlands.** The City shall preserve and protect oak woodlands, heritage oaks, and/or significant stands of oak trees in the city that provide habitat for common native, and special-status wildlife species, and shall address all adverse impacts on oak woodlands in accordance with the City's Heritage Tree Ordinance.

- **Policy ER 2.1.9: Wildlife Corridors.** The City shall preserve, protect, and avoid impacts to natural, undisturbed habitats that provides movement corridors for sensitive wildlife species. If corridors are adversely affected, damaged habitat shall, be replaced with habitat of equivalent value or enhanced to enable the continued movement of species.

- **Policy ER 2.1.10: Habitat Assessments.** The City shall consider the potential impact on sensitive plants and wildlife for each project requiring discretionary approval. If site conditions are such that potential habitat for sensitive plant and/or wildlife species may be present, the City shall require habitat assessments, prepared by a qualified biologist, for sensitive plant and wildlife species. If the habitat assessment determines that suitable habitat for sensitive plant and/or wildlife species is present, then either (1) protocol-level surveys shall be conducted (where survey protocol has been established by a resource agency), or, in the absence of established survey protocol, a focused survey shall be conducted consistent with industry-recognized best practices; or (2) suitable habitat and presence of the species shall be assumed to occur within all potential habitat locations identified on the project site. Survey Reports shall be prepared and submitted to the City and CDFW or USFWS (depending on the species) for further consultation and development of avoidance and/ or mitigation measures consistent with state and federal law.

- **Policy ER 2.1.11: Agency Coordination**. The City shall coordinate with State and Federal resource agencies (e.g., CDFW, USACE, and USFWS to protect areas containing rare or endangered species of plants and animals.

- **Policy ER 2.1.15: Climate Change-related Habitat Restoration and Enhancement**. The City shall support active habitat restoration and enhancement to reduce impact of climate change stressors and improve overall resilience of habitat within existing parks and open space in the city. The City shall support the efforts of Sacramento County to improve the resilience of habitat areas in the American River Parkway.

- **Policy ER 2.1.16: Public Education**. The City shall support educational programs for residents and visitors about the uniqueness and value of the natural resources, plants, and wildlife in the region, and how to manage development to preserve native wildlife populations, to the extent they are consistent with habitat protection requirements.

- **Policy ER 2.1.17: Community Involvement**. The City shall encourage community volunteerism and stewardship to help protect and rehabilitate the area's natural resources.

GOAL ER 3.1: Urban Forest. Manage the city's urban forest as an environmental, economic, and aesthetic resource to improve Sacramento residents' quality of life.

- **Policy ER 3.1.2: Manage and Enhance the City's Tree Canopy**. The City shall continue to plant new trees, ensure new developments have sufficient right-of-way width for tree plantings, manage and care for all publicly owned trees, and work to retain healthy trees. The City shall monitor, evaluate and report, by community plan area and city wide, on the entire tree canopy in order to maintain and enhance trees throughout the City and to identify opportunities for new plantings.
- **Policy ER 3.1.3: Trees of Significance**. The City shall require the retention of City trees and Heritage Trees by promoting stewardship of such trees and ensuring that the design of development projects provides for the retention of these trees wherever possible. Where tree removal cannot be avoided, the City shall require tree replacement or appropriate remediation.
- **Policy ER 3.1.4: Visibility of Commercial Corridors**. The City shall balance the tree canopy of the urban forest with the need for visibility along commercial corridors, including the selection of tree species with elevated canopies.
- **Policy ER 3.1.5: Solar Access**. The City shall promote plantings and tree placement recognizing solar access for alternative energy systems may be limited.
- **Policy ER 3.1.6: Urban Heat Island Effects**. The City shall continue to promote planting shade trees with substantial canopies, and require, where feasible, site design that uses trees to shade rooftops, parking facilities, streets, and other facilities to minimize heat island effects.
- **Policy ER 3.1.7: Shade Tree Planting Program**. The City shall continue to provide shade trees along street frontages within the city.
- **Policy ER 3.1.8: Public Education**. The City shall promote the importance and benefits of trees and of the urban forest through awareness, partnerships, and efforts that educate residents on the best methods of planting and maintaining trees.

Tree Preservation Ordinance

The City finds that trees are a signature of the city and are an important element in promoting the well-being of the citizens of Sacramento. The City finds that, when proper arboricultural practices are applied, trees enhance the natural scenic beauty of the city; increase oxygen levels; promote ecological balance; provide natural ventilation and air filtration; provide temperature and erosion controls; increase property values; and improve the quality of life. City Code Chapter 12.56 provides clear standards for protection, removal, and replacement of city trees and private protected trees (City of Sacramento 2019).

A city tree is defined as any tree the trunk of which, when measured 4.5 feet above ground, is partially or completely located in a city park, on real property the city owns in fee, or on a public right-of-way, including any street, road, sidewalk, park strip, mow strip, or alley. A private protected tree is defined as a tree that is designated by city council resolution to have special historical value, special environmental value, or significant community benefit, and is located on private property; any native valley oak (*Quercus lobata*), blue oak (*Quercus douglasii*), interior live oak (*Quercus wislizenii*), coast live oak (*Quercus agrifolia*), California buckeye (*Aesculus californica*), or California sycamore (*Platanus racemosa*), that has a diameter at standard height (DSH) of 12 inches or more, and is located on private property; a tree that has a DSH of 24 inches or more located on private property that is an undeveloped lot or does not include any single or duplex dwellings; or a tree that has a DSH of 32 inches or more located on private property that includes any single unit or duplex dwellings.

All regulated work on trees requires a tree permit from the director of department of parks or the director's designee for city trees located in city parks, or the director of the department of public works or the director's designee for all other city trees. Regulated work is defined as planting a city tree, or any act that could adversely impact the health of a city tree or private protected tree such as:

- removing a city tree or private protected tree;
- pruning the branches or roots from a city tree or private protected tree;
- affixing any signs, lights, or hardware to a city tree;
- grading, clearing, excavating, adding fill soil, trenching, boring, compacting, or paving within the tree protection zone of a city tree or private protected tree;
- placing or storing construction equipment or construction material within the tree protection zone of a city tree or private protected tree;
- application of any harmful substance within the tree protection zone of a city tree or private protected tree; or
- topping a city tree or private protected tree.

The director may require, where appropriate, the replacement of city trees or private protected trees proposed for removal.

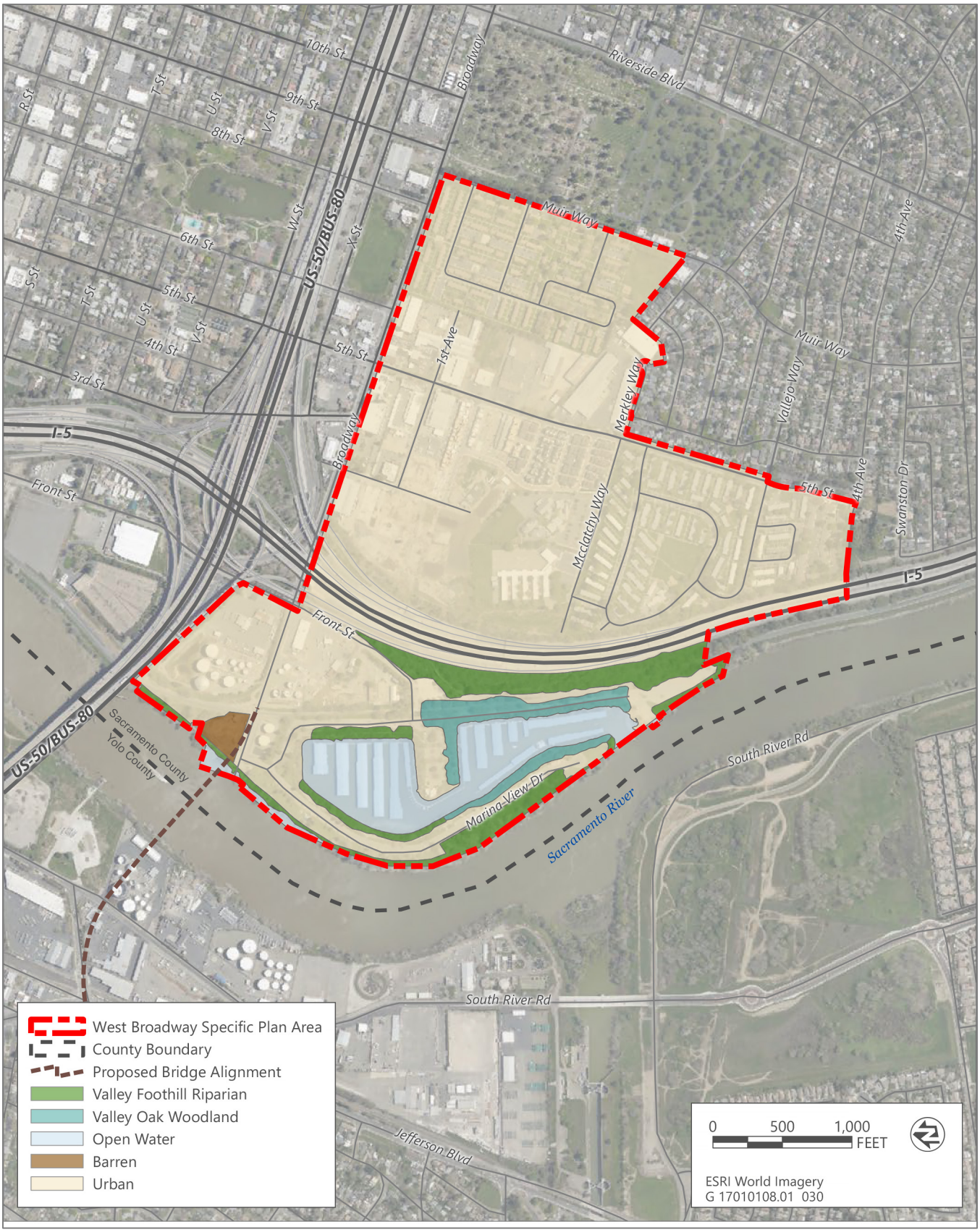
4.3.2 Environmental Setting

The approximately 240-acre Specific Plan Area is located in the city of Sacramento and is mostly level, ranging from approximately 10 to 40 feet above mean sea level. It is bounded by the Sacramento River on the west; Broadway and Business 80/U.S. Highway 50 (U.S. 50) to the north; Muir Way and 5th Street to the east; and 4th Avenue and Merkley Way to the south. Interstate 5 (I-5) travels north-south through the western portion of the Specific Plan Area and separates Miller Regional Park and the industrial lands east of it from the rest of the Specific Plan Area.

Urban habitat comprises the majority of the Specific Plan Area, with limited areas of natural habitats occurring in Miller Regional Park. Land cover types consist of barren and urban areas, including landscaped areas, such as lawns and ornamental trees and shrubs along street sidewalks and within the public housing projects, and city parks, including Miller Regional Park, that contain manicured grassland habitat and mature trees. Natural habitat types include the Sacramento River, valley foothill riparian, and valley oak woodland habitat.

HABITAT TYPES

Habitat types in the Specific Plan Area are based on CDFW's *A Guide to Wildlife Habitats of California* (Mayer 1988) that is used in CDFW's California Wildlife Habitat Relationship System. The acreage of each habitat type in the Specific Plan Area is provided in Table 4.3-1 and is shown in Figure 4.3-1.



Source: Data downloaded from CDFW in 2019

Figure 4.3-1 Vegetation

Table 4.3-1 Land Cover and Habitat Types within the Project Site

Habitat Type	Size (acres)
Urban	242.0
Valley Foothill Riparian	18.1
Valley Oak Woodland	7.5
Riverine/Open Water	23.0
Barren	1.7

Source: Data compiled by Ascent Environmental in 2019

Urban

Urban habitat predominates the Specific Plan Area and is composed of the Marina Vista and Alder Grove public housing projects, The Mill, industrial lands, Miller Regional Park, and other smaller city parks. Miller Regional Park, including the Sacramento Marina, is located within an urban area and is subject to regular disturbance and activity, including homeless encampments. The Mill and the public housing projects contain urban vegetation including ornamental shrubs, landscaping plants, lawns, and some larger native and nonnative shade trees. The industrial lands are mostly devoid of vegetation but contain some smaller areas of ruderal and ornamental vegetation, and nonnative trees, including tree of heaven (*Ailanthus altissima*). Miller Regional Park is composed of manicured grassland habitat with a mix of native and nonnative mature trees. The grassland habitat is dominated by annual grass species, redstem filaree (*Erodium cicutarium*), white clover (*Trifolium repens*), and English daisy (*Bellis perennis*). Native and nonnative trees within the park include western sycamore (*Platanus racemosa*), interior live oak (*Quercus wislizeni*), coast redwood (*Sequoia sempervirens*), and maidenhair tree (*Ginkgo biloba*). Common urban wildlife species include rock pigeon (*Columba livia*), mourning dove (*Zenaida macroura*), house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), and California ground squirrel (*Otospermophilus beecheyi*). Canada goose (*Branta canadensis*) were also observed within Miller Regional Park during the April 2019 site visit.

Valley Foothill Riparian

Valley foothill riparian habitat is present in Miller Regional Park along the Sacramento River, in two narrow strips of vegetation between the Sacramento Marina and Marina View Way and between the Sacramento Marina and Miller Park Circle, and along the eastern boundary of the park adjacent to I-5 (Figure 4-3.1). This habitat within the Specific Plan Area is dominated by Fremont cottonwood (*Populus fremontii*), willows (*Salix* spp.), and walnut (*Juglans* sp.). Other tree and shrub species present include white alder (*Alnus rhombifolia*), Himalayan blackberry (*Rubus armeniacus*), and California wild grape (*Vitis californica*). Blue elderberry (*Sambucus nigra* ssp. *caerulea*) shrubs are present in the riparian habitat adjacent to the railroad tracks. The understory is composed of annual grasses, milk thistle (*Silybum marianum*), and other ruderal vegetation. Riparian habitat provides resources including food, water, migration and dispersal corridors, and suitable nesting habitat for many wildlife species; especially resident and migratory birds and other protected bird species such as Swainson's hawk (*Buteo swainsoni*) and white-tailed kite (*Elanus leucurus*), and roosting habitat for bat species. Elderberry shrubs could support federally threatened valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*).

Valley Oak Woodland

Valley oak woodland habitat within the Specific Plan Area is present in Miller Regional Park in two narrow strips of vegetation between the Sacramento Marina and Marina View Way and between the Sacramento Marina and Ramp Way (Figure 4-3.1). Valley oak woodland is considered a type of riparian habitat. This habitat within the Specific Plan Area is dominated by valley oak (*Quercus lobata*).

Other trees species include cork oak (*Quercus suber*), and paradox walnut (*Juglans hindsii* × *Juglans regia*). The understory is manicured grassland. Valley oak woodland habitat provides suitable nesting habitat for birds, including raptors such as red-tailed hawk (*Buteo jamaicensis*) and red-shouldered hawk (*Buteo lineatus*).

Barren

Barren habitat is present in the northwest corner of the Specific Plan Area as an empty, disturbed gravel lot. This area is fenced and contains a small patch of ruderal vegetation but is otherwise devoid of vegetation. Barren land cover provides limited habitat for wildlife, however, some species such as killdeer (*Charadrius vociferous*), use open, gravel habitats.

Riverine/Open Water

The Sacramento River and adjacent open water present within the Sacramento Marina comprise the riverine habitat within the Specific Plan Area. The project area is within and adjacent to the Lake Greenhaven-Sacramento River subwatershed (HUC 180201630701). The Sacramento River is the largest river and watershed system in California, and the river and its tributaries are vital to anadromous fish species, including three populations of chinook salmon (*Oncorhynchus tshawytscha*) (Central Valley spring-run evolutionarily significant unit [ESU], Central Valley fall / late fall-run ESU, and Sacramento River winter-run ESU), and steelhead (*Oncorhynchis mykiss irideus*) (Central Valley Distinct Population Segment [DPS]), Many other native fish also use the Sacramento River for migratory, rearing, and/or rearing habitat.

American coot (*Fulica americana*), mallard (*Anas platyrhynchos*), and many other species of waterfowl use the open water for resting and escape. Gulls (*Larus* sp.) forage on open water, and insectivorous birds, such as black phoebe (*Sayornis nigricans*) and barn swallow (*Hirundo rustica*), hunt insect prey over the water.

SENSITIVE BIOLOGICAL RESOURCES

Sensitive biological resources include those species, natural communities, and habitats that receive special protection through ESA, CESA, CWA, California Fish and Game Code, Porter-Cologne Water Quality Control Act (Porter-Cologne Act), or local plans, policies, and regulations; or that are otherwise considered sensitive by federal, state, or local resource conservation agencies. Sensitive biological resources evaluated as part of this analysis include sensitive natural communities and special-status plant and animal species.

Special-Status Species

For this EIR, special-status species are defined as:

- species listed or proposed for listing as threatened or endangered under the ESA (50 CFR Section 17.12) for listed plants, (50 CFR Section 17.11) for listed animals, and various notices in the *Federal Register* for proposed species;
- species that are candidates for possible future listing as threatened or endangered under the ESA (75 CFR Section 69222);
- species protected under the Marine Mammal Protection Act;
- species that are listed, proposed for listing, or candidates for listing by the State of California as threatened or endangered under CESA of 1984 (14 CCR Section 670.5);

- species that meet the definition of rare or endangered under the State CEQA Guidelines Section 15380;
- animals fully protected in California (Fish and Game Code Section 3511 for birds, Section 4700 for mammals, and Section 5050 for reptiles and amphibians);
- species identified by CDFW as species of special concern;
- species afforded protection under local or regional planning documents;
- plant taxa considered by CDFW to be "rare, threatened, or endangered in California" and assigned a California Rare Plant Rank (CRPR) of 1A, presumed extinct in California and not known to occur elsewhere; 1B, considered rare or endangered in California and elsewhere; 2A, presumed extinct in California, but more common elsewhere and 2B, considered rare or endangered in California but more common elsewhere. In general, CRPR 3 and 4 species do not meet the definition of endangered, rare, or threatened pursuant to State CEQA Guidelines Section 15380. However, these species may be considered locally significant and may be evaluated by the lead agency on a case-by-case basis; and
- species that are considered locally significant, that is, a species that is not rare from a statewide perspective but is rare or unique in a local context such as within a county or region (State CEQA Guidelines Section 15125 [c]) or is so designated in local or regional plans, policies, or ordinances (State CEQA Guidelines, Appendix G).

A list of special-status species that could potentially occur on the project site or immediate vicinity was developed primarily through review of the USFWS Information for Planning and Conservation project planning tool (USFWS 2019a), and the CNDDB (CNDDB 2019) and the CNPS Inventory (CNPS 2019) records of previously documented occurrences of special-status species in the Grays Bend, Taylor Monument, Rio Linda, Davis, Sacramento West, Sacramento East, Saxon, Clarksburg, and Florin U.S. Geological Survey 7.5-minute quadrangles.

Special-Status Plants

Table 4.3-2 provides a list of the special-status plants that have been compiled from these queries, and describes their regulatory status, habitat, and potential for occurrence in the project site. A total of 23 special-status plant species have been documented in the CNDDB and CNPS Inventory nine-quadrangle search area. Three species, woolly rose-mallow (*Hibiscus lasiocarpos* var. *occidentalis*), Mason's lilaeopsis (*Lilaeopsis masonii)*, and Sanford's arrowhead (*Sagittaria sanfordii*) have potential to occur within the project site.

Table 4.3-2 Special-Status Plant Species Known to Occur in the Project Region and Their Potential for Occurrence in the Project Site

Species	Listing Status[1]			Habitat	Potential for Occurrence[2]
	Federal	State	CRPR		
Ferris' milk-vetch *Astragalus tener* var. *ferrisiae*			1B.1	Wetland. Meadows and seeps, valley and foothill grassland. Subalkaline flats on overflow land in the Central Valley; usually seen in dry, adobe soil. 16 to 246 feet in elevation. Blooms April-May.	Not expected to occur. Suitable microhabitat is not present in the project site. The nearest known occurrence of this species is approximately 3.5 miles west of the project site along the Yolo Causeway (CNDDB 2019, Calflora 2019).
alkali milk-vetch *Astragalus tener* var. *tener*			1B.2	Wetland. Alkali playa, valley and foothill grassland, vernal pools. Low ground, alkali flats, and flooded lands; in annual grassland or in playas or vernal	Not expected to occur. Suitable microhabitat is not present in the project site. There are no occurrences of this

Species	Listing Status[1]			Habitat	Potential for Occurrence[2]
	Federal	State	CRPR		
				pools. 0 to 551 feet in elevation. Blooms March-June.	species within 5 miles of the project site (CNDDB 2019).
heartscale *Atriplex cordulata* var. *cordulata*			1B.2	Chenopod scrub, valley and foothill grassland, meadows and seeps. Alkaline flats and scalds in the Central Valley, sandy soils. 10 to 902 feet in elevation. Blooms April-October.	Not expected to occur. Suitable alkaline habitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).
brittlescale *Atriplex depressa*			1B.2	Alkali playa, wetland. Chenopod scrub, meadows and seeps, playas, valley and foothill grassland, vernal pools. Usually in alkali scalds or alkaline clay in meadows or annual grassland; rarely associated with riparian, marshes, or vernal pools. 3 to 1066 feet in elevation. Blooms April-October.	Not expected to occur. Suitable alkaline habitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).
bristly sedge *Carex comosa*			2B.1	Wetland. Marshes and swamps, coastal prairie, valley and foothill grassland. Lake margins, wet places; site below sea level is on a Delta island. -16 to 5315 feet in elevation. Blooms May-September.	Not expected to occur. Suitable microhabitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).
pappose tarplant *Centromadia parryi* ssp. *parryi*			1B.2	Chaparral, coastal prairie, meadows and seeps, coastal salt marsh, valley and foothill grassland. Vernally mesic, often alkaline sites. 7 to 1378 feet in elevation. Blooms May-November.	Not expected to occur. Suitable microhabitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).
palmate-bracted salty bird's-beak *Chloropyron palmatum*	FE	SE	1B.1	Chenopod scrub, valley and foothill grassland, meadow and seep, wetland. Usually on Pescadero silty clay which is alkaline, with *Distichlis, Frankenia*, etc. 16 to 509 feet in elevation. Blooms May-October.	Not expected to occur. Suitable microhabitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).
Peruvian dodder *Cuscuta obtusiflora* var. *glandulosa*			2B.2	Wetland. Marshes and swamps (freshwater). Freshwater marsh. 49 to 919 feet in elevation. Blooms July-October.	Not expected to occur. Suitable wetland habitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).
dwarf downingia *Downingia pusilla*			2B.2	Wetland. Valley and foothill grassland (mesic sites), vernal pools. Vernal lake and pool margins with a variety of associates. In several types of vernal pools. 3 to 1608 feet in elevation. Blooms March-May.	Not expected to occur. Suitable vernal pool habitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).
Jepson's coyote-thistle *Eryngium jepsonii*			1B.2	Vernal pools, valley and foothill grassland. Clay. 10 to 984 feet in elevation. Blooms April-August.	Not expected to occur. Suitable vernal pool habitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).
San Joaquin spearscale *Extriplex joaquinana*			1B.2	Alkali playa. Chenopod scrub, alkali meadow, playas, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with *Distichlis spicata, Frankenia*, etc. 3 to 2740 feet in elevation. Blooms April-October.	Not expected to occur. Suitable alkaline habitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).

Species	Listing Status[1]			Habitat	Potential for Occurrence[2]
	Federal	State	CRPR		
Boggs Lake hedge-hyssop *Gratiola heterosepala*		SE	1B.2	Wetland. Marshes and swamps (freshwater), vernal pools. Clay soils; usually in vernal pools, sometimes on lake margins. 33 to 7792 feet in elevation. Blooms April-August.	Not expected to occur. Suitable vernal pool and wetland habitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).
woolly rose-mallow *Hibiscus lasiocarpos* var. *occidentalis*			1B.2	Wetland. Marshes and swamps (freshwater). Moist, freshwater-soaked riverbanks and low peat islands in sloughs; can also occur on riprap and levees. In California, known from the delta watershed. 0 to 509 feet in elevation. Blooms June-September.	Could occur in the riverbanks of the Sacramento River in Miller Park. The nearest known occurrence of this species is approximately 3.2 miles northwest of the project site (CNDDB 2019, Calflora 2019).
Northern California black walnut *Juglans hindsii*			1B.1	Riparian forest, riparian woodland. Few extant native stands remain; widely naturalized. Deep alluvial soil, associated with a creek or stream. 0 to 2100 feet in elevation. Blooms April-May.	Not expected to occur. Only one confirmed, native occurrence appears viable as of 2003 in Lake County (CNPS 2019). Reported as possibly present in Butte County, but native status is questionable. Widely naturalized in cismontane CA. Formerly cultivated as rootstock for *J. regia*, with which it hybridizes readily (CNPS 2019).
legenere *Legenere limosa*			1B.1	Vernal pools, wetland. In beds of vernal pools. 3 to 2887 feet in elevation. Blooms April-June.	Not expected to occur. Suitable vernal pool habitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).
Heckard's pepper-grass *Lepidium latipes* var. *heckardii*			1B.2	Valley and foothill grassland, vernal pools. Grassland, and sometimes vernal pool edges. Alkaline soils. 3 to 98 feet in elevation. Blooms March-May.	Not expected to occur. Suitable alkaline habitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).
Mason's lilaeopsis *masonii*			1B.1	Wetland. Freshwater and brackish marshes, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or river bank erosion. 0 to 33 feet in elevation. Blooms April-November.	Could occur in the riparian scrub habitat along the Sacramento River in Miller Park. The nearest known occurrence of this species is approximately 6.2 miles southwest of the project site (CNDDB 2019, Calflora 2019).
Baker's navarretia *Navarretia leucocephala* ssp. *bakeri*			1B.1	Wetland. Cismontane woodland, meadows and seeps, vernal pools, valley and foothill grassland, lower montane coniferous forest. Vernal pools and swales; adobe or alkaline soils. 16 to 5709 feet in elevation. Blooms April-July.	Not expected to occur. Suitable vernal pool habitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).
Colusa grass *Neostapfia colusana*	FT	SE	1B.1	Vernal pools, wetland. Usually in the bottoms of large, or deep vernal pools; adobe soils. 16 to 410 feet in elevation. Blooms May-August.	Not expected to occur. Suitable vernal pool habitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).
bearded popcornflower *Plagiobothrys hystriculus*			1B.1	Wetland. Vernal pools, valley and foothill grassland. Wet sites. 0 to 902 feet in elevation. Blooms April-May.	Not expected to occur. Suitable vernal pool habitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).

Species	Listing Status[1]			Habitat	Potential for Occurrence[2]
	Federal	State	CRPR		
California alkali grass *Puccinellia simplex*			1B.2	Meadows and seeps, chenopod scrub, valley and foothill grasslands, vernal pools. Alkaline, vernally mesic. Sinks, flats, and lake margins. 3 to 3002 feet in elevation. Blooms March-May.	Not expected to occur. Suitable alkaline habitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).
Sanford's arrowhead *Sagittaria sanfordii*			1B.2	Wetland. Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0 to 2,133 ft in elevation. Blooms May-November.	Could occur. Suitable wetland or ditch habitat is not present but the Sacramento River within the marina contains suitable slow-moving or standing water. The nearest known occurrence of this species is approximately 2.5 miles south of the project site (CNDDB 2019).
Suisun Marsh aster *Symphyotrichum lentum*			1B.2	Wetland. Marshes and swamps (brackish and freshwater). Most often seen along sloughs with *Phragmites, Scirpus*, blackberry, *Typha*, etc. 0 to 98 feet in elevation. Blooms, May-November.	Not expected to occur. Suitable wetland habitat is not present in the project site. The nearest known occurrence of this species is approximately 4.4 miles west of the project site (CNDDB 2019).
saline clover *Trifolium hydrophilum*			1B.2	Wetland. Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 0 to 984 feet in elevation. Blooms April-June.	Not expected to occur. Suitable alkaline habitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).
Crampton's tuctoria or Solano grass *Tuctoria mucronata*	FE	SE	1B.1	Wetland. Vernal pools, valley and foothill grassland. Clay bottoms of drying vernal pools and lakes in valley grassland. 16 to 49 feet in elevation. Blooms April-August.	Not expected to occur. Suitable vernal pool and wetland habitat is not present in the project site. There are no occurrences of this species within 5 miles of the project site (CNDDB 2019).

Notes: CRPR = California Rare Plant Rank

1. Legal Status Definitions

Federal:
FE Endangered (legally protected by ESA)
FT Threatened (legally protected by ESA)

State:
SE Endangered (legally protected by CESA)

California Rare Plant Ranks:
1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

Threat Ranks:
0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)
0.2 Moderately threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat)

2. Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

Could occur: Suitable habitat is available; however, there are little to no other indicators that the species might be present.

Likely to occur: Suitable habitat is available and there have been nearby recorded occurrences of the species.

Sources: CNDDB 2019; CNPS 2019

Special-Status Animals

Table 4.3-3 provides a list of the special-status wildlife species that have been documented on the project site or the CNDDB 9-quad search area, and describes their regulatory status, habitat, and potential for occurrence in the project site. A total of 21 special-status wildlife species have potential to occur within the project site. These species consist of western pond turtle, loggerhead shrike (*Lanius ludovicianus*), purple martin (*Progne subis*), song sparrow ("Modesto" population), Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), pallid bat (*Antrozous pallidus*), and western red bat (*Lasiurus blossevillii*), California sea lion (*Zalophus californianus*), and 11 species of special-status fish, including anadromous fish.

Table 4.3-3 Special-Status Wildlife Species Known to Occur in the Project Vicinity and Their Potential for Occurrence in the Project Site

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Amphibians and Reptiles				
California red-legged frog *Rana draytonii*	FT	SSC	Aquatic, Artificial flowing waters, Artificial standing waters, Freshwater marsh, Marsh & swamp, Riparian forest, Riparian scrub, Riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters. Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. must have access to estivation habitat.	Not expected to occur. Historical range included the Central Valley, but this species is no longer found on the valley floor and no suitable habitat is present for this species in the project site. There are no known occurrences of this species within 5 miles of the project site (CNDDB 2019).
California tiger salamander *Ambystoma californiense*	FT	ST	Cismontane woodland, meadow and seep, riparian woodland, valley and foothill grassland, vernal pool, and wetlands. Central Valley DPS federally listed as threatened. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	Not expected to occur. Suitable wetland or vernal pool habitat for this species is not present in or adjacent to the project site. There are no known occurrences of this species within 5 miles of the project site (CNDDB 2019).
giant gartersnake *Thamnophis gigas*	FT	ST	Marsh and swamp, riparian scrub, wetland. Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the garter snakes in California.	Not expected to occur. The Sacramento River does not provide suitable low gradient aquatic habitat for this species in the project site. The nearest known presumed extant occurrence of this species is approximately 5 miles northwest of the project site (CNDDB 2019).
western pond turtle *Emys marmorata*		SSC	Aquatic, artificial flowing waters, Klamath/north coast flowing waters, Klamath/north coast standing waters, marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing and standing waters. A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	May occur. The project site contains potentially suitable habitat for this species along the Sacramento River and the open water habitat within the Sacramento Marina. The nearest known presumed extant occurrence of this species is approximately 8.6 miles southeast of the project site (CNDDB 2019).

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Birds*				
American peregrine falcon *Falco peregrinus anatum* (nesting)	FD	SD FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Not expected to occur. American peregrine falcons are not known to nest within 5 miles of the project site, and there is no suitable nesting habitat within the project site. While the species could migrate through or forage within the project site, this would be highly incidental.
bald eagle *Haliaeetus leucocephalus* (nesting and wintering)		SE FP	Lower montane coniferous forest, old growth. Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	Not expected to occur. There is no suitable nesting habitat in the project site. The closest known nesting area is Folsom Lake, approximately 20 miles northeast of the project site. While the species could migrate through or forage within the project site, this would be highly incidental.
bank swallow *Riparia riparia* (nesting)		ST	Riparian scrub, riparian woodland. Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Not expected to occur. There is no suitable vertical bank/cliff nesting habitat in and adjacent to the project site. The nearest known occurrence of this species is approximately 3.4 miles northeast of the project site; however, this occurrence may be extirpated (CNDDB 2019).
burrowing owl *Athene cunicularia* (burrow sites)		SSC	Coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, and valley and foothill grassland. Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Not likely to occur. Suitable habitat for burrowing owl within the project site is limited to the barren lot in the northwest corner of the project site. Foraging habitat is also limited to this area and lawn grass within Miller Regional Park. Areas with woody vegetation, shrubs, or impervious surfaces are less likely to be used as foraging microhabitat by burrowing owl (Chipman et al. 2008) and these types of land cover make up the majority of the project site. In addition, the barren lot is a small fragmented patch of habitat, suitable burrow microhabitat was not observed during the April 2019 reconnaissance survey, and ongoing disturbance likely precludes this species from occurring within the project site. The nearest known presumed extant occurrence of this species is approximately 3.7 miles east of the project site (CNDDB 2019).
California black rail *Laterallus jamaicensis coturniculus* (nesting)		ST FP	Brackish marsh, freshwater marsh, marsh and swamp, salt marsh, wetland. Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Not expected to occur. There is no suitable wetland habitat in the project site. The nearest known occurrence of this species is approximately 3.5 miles southwest of the project site (CNDDB 2019).
grasshopper sparrow *Ammodramus savannarum* (nesting)		SSC	Valley and foothill grassland. Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	Not expected to occur. The manicured lawn habitat at Miller Regional Park is not suitable grassland habitat for this species. There are no known occurrences of this species within 5 miles of the project site (CNDDB 2019).

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
least Bell's vireo *Vireo bellii pusillus* (nesting)	FE	SE	Riparian forest, riparian scrub, riparian woodland. Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 feet. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, *Baccharis*, mesquite.	Not expected to occur. The project site is within the historic range of this species; however, Least Bell's vireo has been extirpated throughout much of its historic range. The species is very uncommon in the region, and new occurrences are based on several individuals observed in the Yolo Bypass area in 2010 and 2011 (eBird 2019).
loggerhead shrike *Lanius ludovicianus* (nesting)		SSC	Broadleaved upland forest, desert wash, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodlands, riparian woodland, Sonoran desert scrub. Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	May occur. There is potentially suitable nesting habitat for the species within the project site in the riparian woodland habitat in Miller Regional Park. There are no known nesting occurrences of loggerhead shrike within 5 miles of the project site; however, there are recent observations of the species in the vicinity of the project site (CNDDB 2019, eBird 2019).
mountain plover *Charadrius montanus* (wintering)		SSC	Chenopod scrub, valley and foothill grassland. Short grasslands, freshly plowed fields, newly sprouting grain fields, and sometimes sod farms. Short vegetation, bare ground and flat topography. Prefers grazed areas and areas with burrowing rodents.	Not expected to occur. Suitable wintering habitat is not present in the project site. There are recent observations of this species is approximately 5 miles west of the project site (eBird 2019). While the species could migrate through or forage within the project site, this would be highly incidental.
northern harrier *Circus cyaneus* (nesting)		SSC	Coastal scrub, Great Basin grassland, marsh and swamp, riparian scrub, valley and foothill grassland, and wetlands. Coastal salt and fresh-water marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	Not expected to occur. Suitable nesting habitat is not present in the project site. There are recent observations of this species in the vicinity of the project site (eBird 2019); but no known nesting occurrences within 5 miles of the project site. While the species could migrate through or forage within the project site, this would be highly incidental.
purple martin *Progne subis* (nesting)		SSC	Broadleaved upland forest, lower montane coniferous forest. Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree/snag.	May occur. Suitable nesting habitat could be present in weep holes in freeway overpasses in and adjacent to the project site. The nearest known nesting occurrence of this species is under Highway 50 between 18th and 20th Streets approximately 0.7 mile east of the project site (CNDDB 2019).
song sparrow ("Modesto" population) *Melospiza melodia* (nesting)		SSC	Marsh and swamp, wetlands. Emergent freshwater marshes, riparian willow thickets, riparian forests of valley oak (Quercus lobata), and vegetated irrigation canals and levees.	May occur. Suitable nesting habitat could be present in riparian habitat adjacent to the Sacramento River within the project site. There are no recent known nesting occurrences of this species within 5 miles of the project site (CNDDB 2019).
Swainson's hawk *Buteo swainsoni* (nesting)		ST	Great Basin grassland, riparian forest, riparian woodland, valley and foothill grassland. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Likely to occur. Suitable nest trees are present along the Sacramento River and within Miller Regional Park. The nearest known nesting occurrence of Swainson's hawk is across the Sacramento River from the project site and there are many more known nest occurrences within 5 miles of the project site (CNDDB 2019).

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
tricolored blackbird *Agelaius tricolor* (nesting colony)		ST SSC	Freshwater marsh, marsh and swamp, swamp, wetland. Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	Not expected to occur. Suitable nesting habitat is not present in the project site. The nearest known extant nesting colony occurrence is approximately 1.4 miles west of the project site (CNDDB 2019).
western snowy plover *Charadrius alexandrinus nivosus* (nesting)	FT	SSC	Great Basin standing waters, sand shore, wetland. Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Not expected to occur. Suitable aquatic habitat for this species and suitable soils for nesting are not present in the project site. There are no known occurrences of this species within 5 miles of the project site (CNDDB 2019).
western yellow-billed cuckoo *Coccyzus americanus occidentalis* (nesting)	FT	SE	Riparian forest. Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Not expected to occur. Western yellow-billed cuckoo was a previously common species within the Central Valley; however, loss of riparian habitat has resulted in a continued decline of this species. Along the Sacramento River, yellow-billed cuckoo home ranges are found in riparian habitat patches of 25 acres or greater (USFWS 2017). Suitable riparian forest habitat is limited in the project site and does not meet this minimum home range size. There is one known historic occurrence of western yellow-billed cuckoo from 1877 in the vicinity of the project site but this species is considered extirpated from this area due to development (CNDDB 2019).
white-tailed kite *Elanus leucurus* (nesting)		FP	Cismontane woodland, marsh and swamp, riparian woodland, valley and foothill grassland, and wetlands. Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Likely to occur. Suitable nest trees are present along the Sacramento River and within Miller Regional Park. The nearest known occurrence is approximately 0.6 mile west of the project site (CNDDB 2019) and there are many recent observations of white-tailed kite within and adjacent to the project site (eBird 2019).
yellow warbler *Setophaga petechia* (nesting)		SSC	Riparian forest, riparian scrub, riparian woodland. Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	Not likely to occur. Suitable nesting habitat is present in the riparian habitat within Miller Regional Park but this species is presumed extirpated from nesting in most areas of the valley floor, including most of Sacramento County (Shuford and Gardali 2008) and the high level of human disturbance likely precludes nesting. Yellow warbler may use the project area during migration for foraging and cover. There are several recent observations of yellow warbler within and adjacent to the project site (eBird 2019).
yellow-breasted chat *Icteria virens* (nesting)		SSC	Riparian forest, riparian scrub, riparian woodland. Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 feet of ground.	Not expected to occur. Riparian habitat is present in the project site within Miller Regional Park; however, the riparian vegetation is likely not dense enough to support nesting in these areas. The nearest recent observation of yellow-breasted chat is approximately 1.5 miles south of the project site (eBird 2019).

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
yellow-headed blackbird *Xanthocephalus xanthocephalus* (nesting)		SSC	Marsh and swamp, wetland. Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds. Nests only where large insects such as Odonata are abundant, nesting timed with maximum emergence of aquatic insects.	Not expected to occur. Suitable wetland habitat is not present in the project site. There are several recent observations within 5 miles of the project site (eBird 2019).
Fish				
chinook salmon - Central Valley fall / late fall-run ESU *Oncorhynchus tshawytscha* pop. 13		SSC	Aquatic. Sacramento/San Joaquin flowing waters. Populations spawning in the Sacramento and San Joaquin rivers and their tributaries.	Known to occur in Sacramento River. This population is known to occur in the Lake Greenhaven-Sacramento River subwatershed (Santos et al. 2014).
chinook salmon - Central Valley spring-run ESU *Oncorhynchus tshawytscha* pop. 6	FT	ST	Aquatic. Sacramento/San Joaquin flowing waters. Adult numbers depend on pool depth and volume, amount of cover, and proximity to gravel. Water temps >27 C are lethal to adults. Federal listing refers to populations spawning in Sacramento River and tributaries.	Known to occur in Sacramento River. This population is known to occur in the Lake Greenhaven-Sacramento River subwatershed (Santos et al. 2014). The nearest known documented occurrence of this species is approximately 0.4 mile west of the project site in the Sacramento Deep Water Ship Channel.
chinook salmon - Sacramento River winter-run ESU *Oncorhynchus tshawytscha* pop. 7	FE	SE	Aquatic. Sacramento/San Joaquin flowing waters. Sacramento River below Keswick Dam. Spawns in the Sacramento River, but not in tributary streams. Requires clean, cold water over gravel beds with water temperatures between 6 and 14 C for spawning.	Known to occur in Sacramento River. This population is known to occur in the Lake Greenhaven-Sacramento River subwatershed (Santos et al. 2014).
Delta smelt *Hypomesus transpacificus*	FT	SE	Aquatic, estuary. Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities > 10 ppt. Most often at salinities < 2ppt.	May occur. This species historically occurred as far north as at least the city of Sacramento on the Sacramento River (USFWS 2016). The Lake Greenhaven-Sacramento River subwatershed is outside the current range of this species (Santos et al. 2014).
green sturgeon – southern DPS *Acipenser medirostris*	FT	SSC	Aquatic, Klamath/North coast flowing waters, Sacramento/San Joaquin flowing waters. These are the most marine species of sturgeon. Abundance increases northward of Point Conception. Spawns in the Sacramento, Klamath, and Trinity Rivers. Spawns at temperatures between 8-14 degrees C. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock.	Known to occur in Sacramento River. The Sacramento River supports spawning and is used as a migratory corridor by larval and juvenile sturgeon (CalFish 2018).
hardhead *Mylopharodon conocephalus*		SSC	Klamath/North coast flowing waters, Sacramento/San Joaquin flowing waters. Low to mid-elevation streams in the Sacramento-San Joaquin drainage. Also present in the Russian River. Clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. Not found where exotic centrarchids predominate.	Known to occur in Sacramento River. This species is known to occur in the Lake Greenhaven-Sacramento River subwatershed (Santos et al. 2014).
longfin smelt *Spirinchus thaleichthys*	FC	SSC	Aquatic, estuary. Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater.	Not likely to occur. This species was historically documented as far north in the Sacramento River as River Mile (RM) 70.5 near the I-5 crossing in the Natomas Basin (CNDDB 2019). Longfin smelt's current range extends as far

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
				north as slightly upstream of Rio Vista in the Sacramento River (CDFW 2009).
Pacific lamprey *Entosphenus tridentatus*		SSC	Aquatic, Klamath/north coast flowing waters, Sacramento/San Joaquin flowing waters, South coast flowing waters. Found in Pacific Coast streams north of San Luis Obispo County, however regular runs in Santa Clara River. Size of runs is declining. Swift-current gravel-bottomed areas for spawning with water temperatures between 12-18 degrees C. Ammocoetes need soft sand or mud.	Known to occur in Sacramento River. This species is known to occur in the Sacramento River (Reid and Goodman 2017).
river lamprey *Lampetra ayresii*		SSC	Aquatic, Sacramento/San Joaquin flowing waters. Lower Sacramento River, San Joaquin River and Russian River. May occur in coastal streams north of San Francisco Bay. Adults need clean, gravelly riffles, ammocoetes need sandy backwaters or stream edges, good water quality and temperatures < 25 C	Known to occur in Sacramento River. This species is known to occur in the Sacramento River while migrating (Santos et al. 2014).
Sacramento hitch *Lavinia exilicauda*		SSC	Aquatic.	May occur. This species is known to occur in the Sacramento River but populations are scattered and found only in a few localities in relatively low numbers (Santos et al. 2014).
Sacramento perch *Archoplites interruptus*		SSC[3]	Aquatic, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters. Historically found in the sloughs, slow-moving rivers, and lakes of the Central Valley. Prefers warm water. Aquatic vegetation is essential for young. Tolerates wide range of physio-chemical water conditions.	Not expected to occur. Native populations are known from Clear Lake and Alameda Creek/Calaveras Reservoir, as well as in some farm ponds and reservoirs (Santos et al. 2014). The nearest known documented occurrence of this species is approximately 3.3 miles south of the project site in Lake Greenhaven (CNDDB 2019).
Sacramento splittail *Pogonichthys macrolepidotus*		SSC	Aquatic, estuary, freshwater marsh, Sacramento/San Joaquin flowing waters. Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay and associated marshes. Slow moving river sections, dead end sloughs. Requires flooded vegetation for spawning and foraging for young.	May occur. This species historically occurred as far north as Redding but is now rare in the northern part of its range. Young-of-the-year are consistently observed in the Sacramento River (Moyle et al. 2015). The nearest known documented occurrence of this species is within and adjacent to the project site in the Sacramento River (CNDDB 2019).
steelhead - Central Valley DPS *Oncorhynchus mykiss irideus* pop. 11	FT		Aquatic. Sacramento/San Joaquin flowing waters. Populations in the Sacramento and San Joaquin rivers and their tributaries.	Known to occur in Sacramento River. This species is known to occur in the Sacramento River. The nearest known documented occurrence of this species is within and adjacent to the project site in the Sacramento River (CNDDB 2019).
white sturgeon *Acipenser transmontanus*		SSC	Aquatic, estuary, Klamath/north coast flowing waters, Sacramento/San Joaquin flowing waters. Live in estuaries of large rivers, moving into freshwater to spawn. Most abundant in brackish portions of estuaries. In estuaries adults concentrate in deep areas with soft bottoms.	Known to occur in Sacramento River This species is known to spawn in the Sacramento River to Keswick Dam (Moyle et al. 2015). There are no documented occurrences of this species within 5 miles of the project site in CNDDB (2019).

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Invertebrates				
Conservancy fairy shrimp *Branchinecta conservatio*	FE	—	Valley and foothill grassland, vernal pool, wetland. Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	Not expected to occur. Suitable vernal pool habitat is not present in the project site. There are no known occurrences of this species within 5 miles of the project site (CNDDB 2019).
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT		Riparian scrub. Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus nigra* ssp. *caerulea*). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	Likely to occur. Several elderberry (*Sambucus* sp.) shrubs are present in the riparian habitat adjacent to the railroad tracks within the project site and represent suitable habitat for this species. There are many known occurrences of this species within 5 miles of the project site, including along the Sacramento and American Rivers (CNDDB 2019).
vernal pool fairy shrimp *Branchinecta lynchi*	FT		Valley and foothill grassland, vernal pool, wetland. Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Not expected to occur. Suitable vernal pool habitat is not present in the project site. The nearest known occurrence is approximately 4 miles east of the project site (CNDDB 2019).
vernal pool tadpole shrimp *Lepidurus packardi*	FE		Valley and foothill grassland, vernal pool, wetland. Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	Not expected to occur. Suitable vernal pool habitat is not present in the project site. The nearest known occurrence is approximately 4.6 miles southeast of the project site (CNDDB 2019).
Mammals				
American badger *Taxidea taxus*		SSC	Alkali marsh, alkali playa, alpine, alpine dwarf scrub, bog a fen, brackish marsh, broadleaved upland forest, chaparral, chenopod scrub, cismontane woodland, closed-cone coniferous forest, coastal bluff scrub, coastal dunes, coastal prairie. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Not expected to occur. Suitable habitat is not present in the project site. The nearest known occurrence is from an undated collection approximately 4.5 miles east of the project site (CNDDB 2019).
pallid bat *Antrozous pallidus*		SSC	Chaparral, coastal scrub, desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, riparian woodland, Sonoran desert scrub, upper montane coniferous forest, valley and foothill grassland. Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	May occur. Pallid bat may forage in the vicinity of the study area. Suitable roost habitat is present in human-made structures, including the existing rail tunnel under I-5, older buildings, and the oak trees and riparian areas within the project site. There are no known occurrences of this species within 5 miles of the project site (CNDDB 2019).
western red bat *Lasiurus blossevillii*		SSC	Cismontane woodland, lower montane coniferous forest, riparian forest, riparian woodland. Roosts primarily in trees, 2-40 feet above ground, from sea level up through mixed conifer forests. Prefers	May occur. Western red bat may forage in the vicinity of the project site. Suitable roost habitat is present in oak and riparian trees in the project site. There are no known occurrences of this

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
			habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	species within 5 miles of the project site (CNDDB 2019).
California sea lion *Zalophus californianus*	MMPA		Occur in shallow waters of the eastern North Pacific Ocean. Found in coastal waters and on beaches, docks, buoys, and jetties. Prefer sandy beaches or rocky coves for breeding and haul-out sites. Occasionally occur inland.	Likely to occur. California sea lions are known to occur as regular residents in Sacramento waterways (KCRA 3 2018). They were last observed along the Sacramento River near Old Sacramento on May 14, 2019 (Sacramento Bee 2019).

Notes: CNDDB = California Natural Diversity Database; DPS = distinct population segment: ESU = evolutionarily significant unit.

*Because the distribution and abundance of individual bird species varies seasonally, the season, or life phase, during which the species is of conservation concern in California is provided in parentheses beneath the bird species scientific name. There is potential for any of these bird species to fly over or pass through the project site, however, these species would not necessarily be nesting on or otherwise residing on the project site during the season or life phase when the species is of conservation concern in California.

[1] Legal Status Definitions

Federal:

FE Endangered (legally protected)
FT Threatened (legally protected)
FD Delisted
MMPA Marine Mammal Protection Act

State:
FP Fully protected (legally protected)
SSC Species of special concern (no formal protection other than CEQA consideration)
SD Delisted
SE Endangered (legally protected)
ST Threatened (legally protected)

[2.] Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

May occur: Suitable habitat is available; however, there are little to no other indicators that the species might be present.

Likely to occur: Suitable habitat is available and there have been nearby recorded occurrences of the species.

[3] This species has been introduced throughout the state but is only protected within its native range (CDFW 2018b).

Sources: CNDDB 2019; eBird 2019

Critical Habitat

Critical habitat is a specific, formally designated geographic area(s) that contains physical or biological features essential for the conservation of a threatened or endangered species and that may require special management and protection during federal actions. The critical habitat designation imposes no requirements on private or state actions on private or state lands where no federal funding, permits or approvals are required. Critical habitat may include an area that is not currently occupied by the species but that may be needed for its recovery. Areas shown on maps as critical habitat units, as designated by the USFWS or National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS), are often larger than the areas that actually support habitat for the species: only those areas within the critical habitat units that provide the essential physical or biological features are subject to ESA Section 7 consultation. Critical habitat for Chinook salmon (winter- and spring-run ESU), steelhead (Central Valley DPS), and delta smelt is present within the project site (Figure 4.3-2).

Source: Data downloaded from USFWS in 2019

Figure 4.3-2 Critical Habitat

Delta Smelt
There are approximately 10.3 acres of critical habitat for delta smelt in the Sacramento River within the project site (Figure 4.3-2).

Steelhead
There are approximately 18.4 acres of critical habitat for steelhead in the Sacramento River within the project site (Figure 4.3-2).

Chinook Salmon
There are approximately 18.4 acres of critical habitat for Chinook salmon (winter- and spring-run ESU) in the Sacramento River within the project site (Figure 4.3-2).

SENSITIVE NATURAL COMMUNITIES

Sensitive natural communities are those native plant communities defined by CDFW as having limited distribution statewide or within a county or region and that are often vulnerable to environmental effects of projects (CDFW 2018a). These communities may or may not contain special-status species or their habitat. Sensitive natural communities are ranked by CDFW from S1 to S3, where S1 is critically imperiled, S2 is imperiled, and S3 is vulnerable. CDFW's natural-community rarity rankings follow the 2009 NatureServe Conservation Status Assessments: Methodology for Assigning Ranks (Faber-Langendoen et al. 2012), in which all alliances are listed with a global (G) and state (S) rank, where G1 is critically imperiled, G2 is imperiled, G3 is vulnerable, G4 is apparently secure, and G5 is secure. Sensitive natural communities can be thought of as a subset of sensitive habitats.

Sensitive natural communities also include most types of wetlands and riparian communities because of their limited distribution in California. Sensitive natural communities include habitats that are subject to USACE jurisdiction under Section 404 of CWA, Section 1602 of the California Fish and Game Code, and the state's Porter-Cologne Water Quality Control Act, which protects waters of the state. Sensitive natural communities have high potential to support special-status plant and animal species. Sensitive natural communities can also provide other important ecological functions, such as enhancing flood and erosion control and maintaining water quality.

Valley oak woodland and valley foothill riparian on the project site are included on the CDFW list of sensitive natural communities. The Sacramento River is a water of the United States and water of the state (see "Habitat Types" section, above).

WILDLIFE MOVEMENT CORRIDORS

The California Essential Habitat Connectivity Project is an effort to identify large remaining blocks of intact habitat or natural landscape blocks in California, and to model linkages between them; primarily for wildlife movement (Spencer et al. 2010). The project site is not located within any defined Natural Landscape Blocks or Essential Connectivity Areas. The Sacramento River serves as a migratory corridor for several fish species including chinook salmon, steelhead, and green sturgeon. The Sacramento River's associated riparian habitat could also serve as a wildlife movement corridor.

4.3.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

This impact evaluation is based on data collected during a reconnaissance-level field survey conducted on May 9, 2019, review of existing databases and aerial photographs, and information from several previously completed documents that address biological resources in the project vicinity.

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the State CEQA Guidelines, implementation of the WBSP would result in a potentially significant impact related to biological resources if it would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS;
- have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means;
- 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;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan; or
- substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of an endangered, rare, or threatened species.

ISSUES NOT DISCUSSED FURTHER

The West Broadway Gateway, The Mill, Alder Grove, Marina Vista, and Industrial subareas of the WBSP are highly urbanized environments and do not contain natural habitats. Therefore, these areas provide marginal habitat for special-status species and support limited biological resources. Implementation of the WBSP in these subareas is not expected to adversely affect special-status plant species, western pond turtle, valley elderberry longhorn beetle, fish species, California sea lion, wetlands, waters of the United States, or riparian and other sensitive natural communities because these resources are not expected to occur in these subareas. Impacts to these resources, or any other sensitive biological resources, in the West Broadway Gateway, The Mill, Alder Grove, Marina Vista, and Industrial subareas are not expected and are not discussed further. Impacts to the sensitive biological resources could occur in the Marina/Miller Regional Park special study area and are discussed in detail below.

The Specific Plan Area is not located within the jurisdiction of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state conservation plan. Therefore, WBSP implementation would not conflict with the provisions of an adopted conservation plan and this issue is not evaluated further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.3-1: Loss or Disturbance to Special-Status Plant Species and Their Habitat

Project construction activities, including ground disturbance, vegetation removal, and dredging, could result in disturbance to or loss of special-status plants if present on the Specific Plan Area. Because the loss of special-status plants could substantially affect the abundance, distribution, and viability of local and regional populations of these species, this would be a **potentially significant** impact.

Three special-status plant species, woolly rose-mallow, Mason's lilaeopsis, and Sanford's arrowhead, were determined to have potential to occur within the Specific Plan Area. Potentially suitable habitat for these species is present on the Specific Plan Area within Miller Regional Park. Woolly rose-mallow could occur along the riverbanks of the Sacramento River and Mason's lilaeopsis could occur in the riparian scrub habitat. Sanford's arrowhead could occur within the open water habitat of the Sacramento Marina.

Implementation of the WBSP would result in an expanded south basin of the marina and an expansion in land of the northern section of the existing marina area. Expansion of the south basin would be accomplished by narrowing the land on the peninsula between the marina and the Sacramento River. Soil or dredged material from expanding the south basin could then be used as fill to expand the land area for the park on portions of the north basin of the marina. These modifications could result in disturbance or removal of Sanford's arrowhead and its habitat if present.

In addition, the WBSP includes two new bridge connections (one across the Sacramento River and one across the entrance to the Marina from the Sacramento River). The first, a future bike and pedestrian bridge connecting Sacramento and West Sacramento, could result in disturbance or removal of woolly rose-mallow and Mason's lilaeopsis and their habitat if present. The second, which involves a new bike and pedestrian bridge to connect the current south end of the peninsula to the boat ramp area for Miller Regional Park, may require similar bridge supports/abutments depending on the type of bridge constructed. If bridge supports are required within the open water habitat, construction of this bridge could result in disturbance or removal of Sanford's arrowhead and its habitat if present.

The loss of special-status plants and their habitat could substantially affect the abundance, distribution, and viability of local and regional populations of these species. Therefore, because of the potential loss of woolly rose-mallow, Mason's lilaeopsis, or Sanford's arrowhead, impacts would be **potentially significant**.

Mitigation Measures

Mitigation Measure 4.3-1: Special-Status Plant Surveys, Protection, and Mitigation

Before construction activities, including ground disturbance or dredging, within the project site, the project applicant shall impose the following conditions:

- Before construction and during the blooming period for the special-status plant species with potential to occur in the project site, a qualified botanist shall conduct protocol-level surveys for special-status plants in areas where potentially suitable habitat would be removed or disturbed by project activities.

The blooming period for woolly rose-mallow is approximately June to September and for Mason's lilaeopsis is approximately April to November. The blooming period for Sanford's arrowhead is approximately May to November. Therefore, the optimal survey period for all three species is June to September.

- If special-status plant species are not found, the botanist shall document the findings in a letter report to CDFW and the project applicant and no further mitigation shall be required.
- If woolly rose-mallow, Mason's lilaeopsis, Sanford's arrowhead, or other special-status plant species are found on the project site and are located outside of the permanent footprint of any proposed structures/site features and can be avoided, the project applicant shall establish and maintain a buffer around special-status plants to be retained to prevent disturbance to the plants.
- If special-status plant species are found that cannot be avoided during construction, the applicant shall consult with CDFW to determine the appropriate mitigation measures for direct and indirect impacts that could occur because of project construction and shall implement the agreed-upon mitigation measures to achieve no net loss of occupied habitat or individuals. Mitigation measures may include preserving and enhancing existing populations, creation of offsite populations on mitigation sites through seed collection or transplantation, and/or restoring or creating suitable habitat in sufficient quantities to achieve no net loss of occupied habitat and/or individuals. A mitigation and monitoring plan shall be developed describing how unavoidable losses of special-status plants shall be compensated.
- If relocation efforts are part of the mitigation plan, the plan shall include details on the methods to be used, including collection, storage, propagation, receptor site preparation, installation, long-term protection and management, monitoring and reporting requirements, success criteria, and remedial action responsibilities should the initial effort fail to meet long-term monitoring requirements.
- Success criteria for preserved and compensatory populations shall include:
    - The extent of occupied area and plant density (number of plants per unit area) in compensatory populations shall be equal to or greater than the affected occupied habitat.
    - Compensatory and preserved populations shall be self-producing. Populations shall be considered self-producing when:
        - plants reestablish annually for a minimum of 5 years with no human intervention such as supplemental seeding; and
        - 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.
    - If offsite mitigation includes dedication of conservation easements, purchase of mitigation credits, or other offsite conservation measures, the details of these measures shall 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.

Significance after Mitigation

Implementation of Mitigation Measure 4.3-1 would reduce significant impacts on special-status plants to a **less-than-significant** level because it would require identification and avoidance of special-status plants or provide compensation for loss of special-status plants through enhancement of existing

populations, creation and management of offsite populations, conservation easements, or other appropriate measures.

Scenario B Option

The Scenario B option would retain the marina in its current configuration, with the continued operations of the marina and associated facilities and would focus enhanced recreational opportunities in a smaller area. However, the proposed bridge crossings of the marina entrance and to the City of West Sacramento would also occur under this alternative. As a result, impacts under this option would be similar to the proposed project. Implementation of Mitigation Measure 4.3-1 would be required to reduce impacts to **less-than-significant** levels.

Impact 4.3-2: Loss or Disturbance to Special-Status Fish Species and Degradation or Loss of Designated Critical Habitat

Implementation of the WBSP could include construction of a potential future bike and pedestrian bridge connecting Sacramento and West Sacramento and/or construction of a new bike and pedestrian bridge to connect the current south end of the peninsula to the boat ramp area for Miller Regional Park. Construction-related impacts, including noise, vibration, artificial lighting, water quality effects, introduction or spread of aquatic invasive species, entrapment and mortality of fish, and loss of habitat, including loss of shaded riverine aquatic habitat and increased artificial shade, could adversely affect fish species. This would be a **potentially significant** impact.

The Sacramento River within the Specific Plan Area is part of the Lake Greenhaven-Sacramento River subwatershed (Santos et al. 2014). This subwatershed provides habitat for many native fish species, including eleven special-status fish species. These consist of Sacramento splittail (*Pogonichthys macrolepidotus*), Sacramento hitch (*Lavinia exilicauda exilicauda*), Chinook salmon (*Oncorhynchus tshawytscha*) (winter-, spring-, fall- and late fall–run ESU), steelhead *Oncorhynchus mykiss irideus*) (Central Valley DPS), green (*Acipenser medirostris*) and white sturgeon (*Acipenser transmontanus*), Pacific lamprey (*Entosphenus tridentata*), river lamprey (*Lampetra ayresii*), delta smelt (*Hypomesus transpacificus*), longfin smelt (*Spirinchus thaleichthys*), hardhead (*Mylopharodon conocephalus*), and Sacramento perch (*Archoplites interruptus*). The Sacramento River within the Specific Plan Area is also designated as critical habitat for delta smelt, Chinook salmon (winter- and spring-run), and Central Valley steelhead.

Hydroacoustic Impacts

Impact pile drivers in or near waterways are known to produce very high levels of sound pressure which can result in adverse effects to fish due to high levels of underwater sound, but to differing degrees (Caltrans 2015). Criteria have been established to support assessing acoustics effects to west coast fish species. The Fisheries Hydroacoustic Working Group, which consists of representatives from NMFS, USFWS, the Federal Highway Administration, and the West Coast Departments of Transportation, established interim thresholds to assess physical injury to fish exposed to underwater sound produced during pile driving (FHWG 2008). Thresholds include a single strike peak sound pressure level of 206-dB (re: 1 µPa) and an accumulated sound exposure level (cSEL) of 187-dB (re: 1 µPa2-sec) for fish greater than two grams and 183-dB (re: 1 µPa2-sec) for fish less than two grams. Physical injury is assumed to occur if either the peak or cSEL threshold is exceeded.

The sound exposure level (SEL) referred to as “effective quiet” can be used to identify the distance beyond which no physical injury is expected from a single strike, regardless of the number of strikes. The effective quiet currently assumed for fish is 150-dB (re: 1 µPa2*sec). When the received SEL from an individual pile strike is below this level, the accumulated energy from multiple strikes is not expected

to contribute to injury, regardless of how many pile strikes occur. The effective quiet level is used to identify the maximum distance from the pile where injury to fishes is expected. It is the distance at which the single-strike SEL attenuates to 150dB (Cal WaterFix 2015).

Resource agencies consider use of a vibratory hammer to be less harmful to fish than use of an impact hammer because of the continuous characteristics of the sound wave produced by a vibratory hammer (Caltrans 2017). While exposure to continuous sound for a long duration could harm fish, noise from an impact hammer is an impulsive sound source with a high intensity and rapid rise time and is known to injure or kill fish. Sound from pile driving can also affect fish foraging, migration, reproduction (depending on the time of year). Potential effects on fish may vary depending on type and size of impact driver equipment, material pile is constructed of, depth of pile, number of impact driver strikes needed to bring pile to desired depth, etc. and additional analysis would need to be conducted to assess potential effects to listed fish. Hydroacoustic impacts would be a potentially significant impact.

Lighting Impacts

Artificial lighting used during construction at night, as well as permanent lighting associated with the potential new bridge(s), could potentially affect fish species. Increased nighttime light intensity on the Sacramento River could result in altered fish behavior or altered behavior of fish predators that could lead to increased mortality of fish through increased predation (Tabor et al. 2004). This would be a potentially significant impact.

Water Quality Impacts

Construction activities within and adjacent to the Sacramento River could result in disturbance to sediments in the channel and increase turbidity in the water column. Elevated levels of suspended sediments could potentially disrupt normal foraging, rearing, and migratory behavior in fish species and reduce juvenile's ability to detect predators or cause them to avoid biologically important habitat. Chronic exposure to high turbidity could also result in adverse physiological effects on fish.

Construction activities could result in increased exposure of fish to contaminated sediments through disturbance and resuspension of sediments during in-channel work and from accidental discharge such as equipment leaks or spills. Exposure to these contaminants could affect the health of fish at potentially lethal levels. The potential magnitude of effects resulting from exposure to contaminants depends on several factors, including type, volume, concentration, and solubility of the contaminant, timing and duration of the spill, and species, life stage, duration of exposure, condition or health of exposed individuals, and physical and chemical properties of the water such as pH, temperature, and dissolved oxygen. Fish species could be present in the Sacramento River at any time, however, juvenile and adult fall- and late-fall run Chinook salmon occur less frequently during the summer. Exposure to increased pollutants and sedimentation would be a potentially significant impact.

In addition to short-term water quality impacts described above, downstream waters and fish species could be indirectly affected in the long-term by the increase in impervious surfaces and additional discharge of stormwater runoff into the Sacramento River. Potential indirect effects on downstream waters and fish species include reduction in water quality caused by potential increased urban runoff, including pollutant concentrations and sediment runoff, increased erosion, and altered hydrology. Section 4.9, "Hydrology and Water Quality" describes the potential impacts of indirect effects of installing the bridges in more detail. The potential bridges would not result in an increase in road pollutant runoff because the bridges would only be used by pedestrians and bicycles. New development would be required to comply with best management practices (BMPs), consistent with the Storm Water Pollution Prevention Plan, and other permits and plans, including the City's Stormwater Quality Improvement Plan, the City's ordinances, and the Stormwater Quality Design Manual for

Sacramento and South Placer Regions. Compliance with applicable City ordinances and State and federal law and implementation of permanent BMPs would prevent substantial degradation of water quality and associated habitat conditions in the Sacramento River. These indirect operational impacts would be less than significant.

Habitat Impacts

Construction of the potential bridge(s) could result in temporary and permanent loss of aquatic habitat for fish species. Installation of the bridge(s) could inhibit recruitment and retention of sediment and woody debris, prevent establishment of riparian vegetation, and eliminate or reduce shallow, low-velocity river margins that provide habitat for juvenile fish. The exact structures, locations of the structures, and acreage of habitat temporarily and permanently affected are unknown at the time of preparation of this EIR.

USFWS defines shaded riverine aquatic (SRA) cover as "the unique, near-shore aquatic cover that occurs at the interface between a stream or river and adjacent woody riparian habitat" and it is an essential component of salmonid rearing habitat (USFWS 1992). SRA habitat, and riparian habitat (a form of SRA), control bank erosion, contribute to in-channel structural diversity, maintain shade necessary to reduce thermal input and contribute to fish prey production, and provide fish cover from predators.

The potential bridge(s) would create new permanent overwater structure(s) that could alter underwater light conditions because of temporary and permanent shading. Shading causes fish species to hold in shaded areas beneath bridges (Washington Department of Fish and Wildlife, Ecology, and Transportation 2001) and could also result in increased predation.

Potential temporary or permanent loss of aquatic habitat and SRA habitat, and permanent shading would be a potentially significant impact.

Fish Entrapment Impacts

The potential new bridge(s) could require use of cofferdams for in-water work. If cofferdams are used, fish could become trapped in them and result in mortality. Due to the potential for entrapment to occur, impacts are considered potentially significant.

Aquatic Invasive Species Impacts

Construction activities could also introduce and facilitate spread of invasive species such as quagga mussel (*Dreissena bugensis*), zebra mussel (*Dreissena polymorpha*), hydrilla (*Hydrilla verticillata*), and Brazilian elodea (*Egeria densa*) if in-water construction equipment is brought in from other regions and is not properly cleaned. This would be a potentially significant impact.

Conclusion

Due to the potential for direct mortality, the introduction of aquatic invasive species, and loss of habitat, impacts to special-status fish species would be considered **potentially significant**.

Mitigation Measures

Hydroacoustic Impacts

Mitigation Measure 4.3-2a: Conduct a Hydroacoustic Effects Analysis

Upon further design and planning of any proposed bridge crossings that shall involve in-water work, the City shall conduct a project-specific noise and vibration evaluation of construction activities on fish following the Caltrans "Technical Guidance for Assessment and Mitigation of Hydroacoustic Effects of Pile Driving on Fish" (Caltrans 2009) and the NMFS Pile Driving Calculations spreadsheet (NMFS 2012).

Impacts associated with pile driving and other noise and vibration generating construction activities shall be avoided and minimized through development and implementation of additional measures (e.g. use of bubble curtains, minimizing the number of piles driven in a day, using the smallest pile driver and minimum force necessary, etc.) intended to achieve the project-specific performance standard established as part of the hydroacoustic analysis.

Mitigation Measure 4.3-2b: Conduct in-Water Construction Activities Between June 1 and October 1 and Only During Daylight Hours

Conduct all in-water construction work and noise and vibration generating activities (i.e. pile driving) between June 1 and October 1. This work window will minimize exposure to fall-run Chinook salmon of potential contaminants because they are less likely to be present in the Sacramento River during this time of year. In-water work shall be conducted during daylight hours only.

Mitigation Measure 4.3-2c: Develop and Implement a Hydroacoustic Monitoring Plan

The project applicant shall develop and implement a hydroacoustic monitoring plan for any development activities involving pile driving in or proximate to (i.e., within 50 feet of) the Sacramento River or marina. The monitoring plan shall be submitted to the resource agencies (NMFS, USFWS, and CDFW) for approval at least 60 days before the start of project activities. The plan shall include the following requirements:

- The project applicant and/or its construction contractor shall monitor underwater noise levels during all impact pile driving activities on land and in water to ensure that peak and cumulative SELs do not exceed estimated values, based on the hydroacoustic analysis.
- The monitoring plan shall describe the methods and equipment that shall be used to document the extent of underwater sounds produced by pile driving, including the number, location, distances, and depths of the hydrophones and associated monitoring equipment.
- The monitoring plan shall include a reporting schedule for daily summaries of the hydroacoustic monitoring results and for more comprehensive reports to be provided to the resource agencies on a monthly basis during the pile driving season.
- The daily reports shall include the number of piles installed per day; the number of strikes per pile; the interval between strikes; the peak sound pressure level (SPL), SEL, and decibels root mean square (dB RMS) per strike; and the accumulated SEL per day at each monitoring station.
- The project applicant or its contractors shall ensure that a qualified fish biologist is on site during impact pile driving to document any occurrences of stressed, injured, or dead fish. If stressed, injured, or dead fish are observed during pile driving, the project applicant and/or its construction contractor shall reduce the number of strikes per day to ensure that fish are no longer showing signs of stress, injury, or mortality.

Mitigation Measure 4.3-2d: Avoid or Minimize Temporary Construction Lighting and Permanent Bridge Lighting from Directing Radiating on Water Surfaces of the Sacramento River

The project applicant shall implement the following measures to minimize temporary construction lighting:

- Avoiding construction activities at night.
- Use the minimal amount of lighting necessary to safely and effectively illuminate the work areas.
- Shield and focus lights on work areas and away from the water surface of the Sacramento River.

The project applicant shall also implement the following measures to minimize permanent bridge lighting:

- Minimizing nighttime lighting of the bridge structure for aesthetic purposes.
- Use the minimal amount of lighting necessary to safely and effectively illuminate bicycle and pedestrian areas on the bridge.
- Shield and focus lights on bicycle and pedestrian areas away from the water surface of the Sacramento River.

Mitigation Measure 4.3-2e: Monitor Turbidity in the Sacramento River

The project applicant or construction contractor shall monitor turbidity levels in the Sacramento River during in-water construction activities. Turbidity shall be measured using standard techniques upstream and downstream of the construction area to determine whether changes in ambient turbidity levels exceed limits established in the Basin Plan for the Sacramento and San Joaquin Rivers (CVRWQCB 2018). If it is determined that turbidity levels exceed the allowed limits, then the project applicant and/or its contractors shall adjust work to ensure that turbidity levels do not exceed the allowed limits.

Mitigation Measure 4.3-2f: Compensate for Impacts on Critical Habitat

If permanent impacts on critical habitat, such as loss of shaded riverine aquatic habitat, permanent shading of aquatic habitat, etc. occur, the project applicant shall mitigate the impacts on a “no effective net loss” of habitat basis through purchase of mitigation credits at a NMFS-approved anadromous fish conservation bank.

Mitigation Measure 4.3-2g: Implement Cofferdam Restrictions

If cofferdams are used during the construction of the bridge(s), the following restrictions shall be implemented:

- The extent of cofferdam footprints shall be limited to the minimum necessary to support construction activities.
- Sheet piles used for cofferdams shall be installed and removed using a vibratory pile driver.
- Cofferdams shall be installed and removed only during the in-water work window (between June 1 and October 1).
- Cofferdams shall not be left in place over winter where they could be overtopped by winter/spring flows and when juveniles of listed species are most likely to be present in the construction area.
- All pumps used during dewatering of cofferdams shall be screened according to CDFW and NMFS guidelines for screens.
- Cofferdam dewatering and fish rescue/relocation from within cofferdams shall commence immediately following cofferdam closure.

Mitigation Measure 4.3-2h: Prepare and Implement a Fish Rescue and Relocation Plan

A qualified fish biologist shall develop and implement a fish rescue and relocation plan to recover any fish trapped in cofferdams. The fish rescue and relocation plan shall be submitted to the resource agencies (CDFW, NMFS, and USFWS) and the project applicant for approval at least 60 days before initiating activities to install cofferdams. At a minimum, the plan shall include the following:

- A requirement that fish rescue and relocation activities shall commence immediately after cofferdam closure and that dewatering has sufficiently lowered water levels inside cofferdams to make it feasible to rescue fish.
- A description of the methods and equipment proposed to collect, transfer, and release all fish trapped within cofferdams. Capture methods may include seining, dip netting, and/or electrofishing as approved by CDFW, NMFS, and USFWS. The precise methods and equipment to be used shall be developed in consultation with CDFW, NMFS, USFWS.
- A requirement that only CDFW-, NMFS-, and USFWS-approved fish biologists shall conduct the fish rescue and relocation.
- A requirement that fish biologists shall contact CDFW, NMFS, and USFWS immediately if any listed species are found dead or injured.
- A requirement that a fish rescue and relocation report be prepared and submitted to CDFW, NMFS, and USFWS within 5 business days following completion of the fish relocation. Data shall be provided in tabular form and at a minimum shall include the species and number rescued and relocated, approximate size of each fish (or alternatively, approximate size range if large number of individuals are encountered), date and time of their capture, and general condition of all live fish (e.g., good–active with no injuries; fair–reduced activity with some superficial injuries; poor–difficulty swimming/orienting with major injuries). For dead fish, additional data shall include fork length and description of injuries and/or possible cause of mortality if it can be determined.

Mitigation Measure 4.3-2i: Prevent the Spread or Introduction of Aquatic Invasive Species

The project applicant shall implement the following measures to minimize the spread or introduction of aquatic invasive species associated with in-water construction activities in the Sacramento River:

- Coordinate with the CDFW's Invasive Species Program to ensure that the appropriate BMPs are implemented to prevent the spread or introduction of aquatic invasive species.
- Educate construction supervisors and managers about the importance of controlling and preventing the spread of aquatic invasive species.
- Train vessel and equipment operators and maintenance personnel in the recognition and proper prevention, treatment, and disposal of aquatic invasive species.
- Before departure of vessels from their place of origin and before in-water construction equipment is allowed to operate within the Sacramento River, thoroughly inspect and remove and dispose of all dirt, mud, plant matter, and animals from all surfaces that are submerged or may become submerged, or places where water can be held and transferred to the surrounding water.

Significance after Mitigation

Implementation of Mitigation Measure 4.3-2 a through i would reduce significant impacts to fish species and their habitat to a **less-than-significant** level by avoiding or minimizing hydroacoustic, lighting, and water quality impacts, preventing the introduction and spread of aquatic invasive species, minimizing fish entrapment and mortality, and compensating for loss of habitat, including critical habitat.

Scenario B Option

The Scenario B option would retain the marina in its current configuration, with the continued operations of the marina and associated facilities and would focus enhanced recreational opportunities

in a smaller area. However, the proposed bridge crossings of the marina entrance and to the City of West Sacramento would also occur under this alternative. As a result, impacts to special-status fish under this option would be similar to the proposed project. Implementation of Mitigation Measure 4.3-2 a through j would be required to reduce impacts to **less-than-significant** levels.

Impact 4.3-3: Loss of Western Pond Turtle and Its Habitat

Project implementation could include construction of a potential future bike and pedestrian bridge connecting Sacramento and West Sacramento and/or construction of a new bike and pedestrian bridge to connect the current south end of the peninsula to the boat ramp area for Miller Regional Park. This would require in-channel work that could result in injury, disturbance, or direct mortality of western pond turtle. Project construction could also result in loss of upland basking habitat for western pond turtle. This impact would be **potentially significant**.

Western pond turtle forages in ponds, marshes, slow-moving streams, sloughs, where there is open water. The species nests in nearby uplands with low, sparse vegetation, such as grassland. The Sacramento River within the Specific Plan Area, including within the marina area, provides suitable aquatic habitat for western pond turtle. Upland bank habitat along the Sacramento River within Miller Regional Park may provide basking habitat. However, it is unlikely to support nesting by western pond turtle because the bank slope is close to 45 degrees (as opposed to the preferred slope of less than 15 degrees), is generally heavily vegetated or consists of compacted soil or rip-rap, and the adjacent upland habitat is manicured grassland, none of which are suitable for nesting. Western pond turtle produce hard-shelled eggs that are incapable of expanding in response to increasing internal pressure due to moist incubation substrates, and therefore under conditions of excess moisture, such as in regularly irrigated urban grasslands, the eggshell ruptures and the embryo rarely survives (Spinks et al. 2003). Additionally, there are high levels of human disturbance, including recreational visitors such as fishermen, to Miller Regional Park, and homeless encampments, which further deter western pond turtles from dispersing from the Sacramento River into upland habitat.

Implementation of the proposed WBSP improvements within the Marina/Miller Regional Park subarea has the potential to result in direct mortality or disturbance of western pond turtle and its habitat during dredging and fill activities. These improvements include potential bike and pedestrian bridge connections between Sacramento and West Sacramento, as well as between the current south end of the marina peninsula to the boat ramp area for Miller Regional Park. Construction of either bridge could result in western pond turtles being crushed and killed during bridge construction activities within the Sacramento River. Additionally, noise and vibration from bridge construction (e.g., pile driving) would disturb western pond turtle and could result in injury. Because the implementation of these improvements as part of the WBSP would disturb aquatic and upland basking habitat for western pond turtle and could result in loss of western pond turtle, this impact would be **potentially significant**.

Mitigation Measures

Mitigation Measure 4.3-3: Conduct a Pre-Construction Survey for Western Pond Turtle and Relocate Individuals Outside the Work Area

To avoid and minimize impacts on western pond turtles that could occur in or on the banks of the Sacramento River within the project site, the project applicant shall retain a qualified wildlife biologist to conduct a preconstruction survey for western pond turtle in suitable habitat within the work area.

If potential bridge construction activities do not require dewatering of aquatic habitat and the qualified biologist determines visual encounter surveys are not sufficient to determine presence of western pond

turtle within aquatic habitat in the work area, the qualified biologist shall consult with CDFW to determine if additional avoidance measures (e.g., monitoring, trapping surveys) are necessary to minimize impacts on western pond turtle.

If turtles are observed during a survey, they shall be either hand-captured or trapped and relocated outside the construction area to appropriate aquatic habitat by a qualified biologist. If western pond turtle is observed within the work area during construction activities, work shall cease in the area until the turtle is able to move out of the work area on its own or can be safely relocated by a biologist.

Mitigation Measure 4.3-3c: Implement Mitigation Measures 4.3-2a, 4.3-2b, 4.3-2c, and 4.3-2e

The project applicant shall implement Mitigation Measures 4.3-2a, 4.3-2b, 4.3-2c, and 4.3-2e, which require avoiding or minimizing hydroacoustic and water quality impacts.

Significance after Mitigation

Implementing Mitigation Measure 4.3-3 would reduce significant impacts on western pond turtle to a **less-than-significant** level because these measures would minimize direct mortality, injury, or stranding of individuals in the work area.

Scenario B Option

The Scenario B option would retain the marina in its current configuration, with the continued operations of the marina and associated facilities and would focus enhanced recreational opportunities in a smaller area. However, the proposed bridge crossings of the marina entrance and to the City of West Sacramento would also occur under this alternative. As a result, impacts under this option would be similar to the proposed project. Implementation of Mitigation Measure 4.3-3 would be required to reduce impacts to **less-than-significant** levels.

Impact 4.3-4: Loss or Disturbance of Nesting Swainson's Hawk, White-Tailed Kite, Loggerhead Shrike, Purple Martin, Song Sparrow ("Modesto" Population), and Other Protected Birds

Implementation of the WBSP could result in loss and disturbance of suitable nesting habitat for Swainson's hawk, white-tailed kite, loggerhead shrike, purple martin, song sparrow ("Modesto" population), and more common birds and raptors protected under the California Fish and Game Code. Construction activity could disturb active nests on or near the construction area, potentially resulting in nest abandonment by the adults and mortality of chicks and eggs. This impact would be **potentially significant**.

Swainson's hawk and white-tailed kite could nest in riparian and other mature trees in the Specific Plan Area, particularly within the Marina/Miller Regional Park subarea. Construction activities, including grading and grubbing, near suitable nesting habitat (individual trees or riparian woodland habitat) within or adjacent to the project site could disturb an active Swainson's hawk nest or white-tailed kite or other common raptors. Swainson's hawk are known to nest across the Sacramento River from Miller Regional Park and in the vicinity of the Specific Plan Area. Loggerhead shrike, song sparrow ("Modesto" population), and other protected birds could nest in the riparian habitat adjacent to the Sacramento River within Miller Regional Park. Purple martin could nest in the weep holes of the I-5 freeway overpass crossing Broadway Boulevard.

Under the WBSP, the Marina/Miller Regional Park Special Study Area would be reconfigured, and new facilities would be constructed, which would likely require removal of existing trees and vegetation. In addition, the proposed project would include the potential for a future bike and pedestrian bridge connecting Sacramento and West Sacramento. Project construction activities during the bird and raptor breeding season (generally February 1 through August 31), including construction of the bridge,

reconfiguration of boat slips, and the development of facilities within the Marina/Miller Regional Park Special Study Area, could disturb or remove occupied nests of special-status and non-special-status birds and raptors. Tree removal could also result in the incidental loss of Swainson's hawk adults or juveniles. Project activities could include removal of mature trees or riparian vegetation. Vegetation removal is expected to be the minimal amount necessary to enhance recreational opportunities in the subarea and the park would remain as open space and would continue to support riparian habitat. Implementation of the WBSP would not result in loss of nesting habitat for purple martin in the long-term because no changes to the I-5 freeway overpass are proposed.

Other common birds and raptors could nest in trees and other vegetation, including ornamental plants, on buildings and structures, and on the ground throughout the Specific Plan Area. The development and redevelopment proposed in the West Broadway Gateway, The Mill, Alder Grove, Marina Vista, and Industrial subareas could result in removal of existing trees and vegetation that support nesting birds and construction activities could disturb nesting birds.

Removal of suitable nesting habitat associated with vegetation removal, including grubbing, could result in the incidental loss of fertile eggs or nestlings, or lead to nest abandonment. Increased levels of noise and human activity in the vicinity of an active nest could result in nest abandonment or forced fledging and subsequent loss of fertile eggs, nestlings, or juveniles. The potential loss of birds and their nests and the reduction of reproductive success of local bird populations would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 4.3-4: Avoid Direct Loss and Disturbance of Nesting Swainson's Hawk, White-Tailed Kite, Loggerhead Shrike, Purple Martin, Song Sparrow ("Modesto" Population), and Other Protected Birds

- Conduct all tree and vegetation removal during the nonbreeding season (generally between September 1 and February 28) for special-status and non-special-status migratory birds, to the extent feasible.

- Before removal of any vegetation or any ground disturbance between February 1 and August 31, a qualified biologist shall conduct preconstruction surveys for nests within 0.25 mile of the project site for Swainson's hawks, 500 feet for other nesting raptors, and 100 feet for all other birds. The surveys shall be conducted no more than 30 days before construction commences. Surveys for Swainson's hawk shall be conducted in accordance with the Swainson's Hawk Technical Advisory Committee's methodology (May 31, 2000) or according to updated methodologies issued by CDFW.

- If no active nests are found during focused surveys, no further action under this measure shall be required.

- Impacts to nesting Swainson's hawks, other raptors, or other nesting birds shall be avoided by establishing appropriate buffers around active nest sites identified during preconstruction raptor surveys. Project activity shall not commence within the buffer areas until a qualified biologist has determined that the young have fledged, the nest is no longer active, or reducing the buffer would not likely result in nest abandonment. CDFW guidelines recommend implementation of 0.25-mile-wide buffer for Swainson's hawk. For all other birds, a qualified biologist shall establish a non-disturbance buffer at a distance sufficient to minimize nest disturbance based on the nest location, topography, cover, the species' sensitivity to disturbance, and the intensity/type of potential disturbance. The size of the buffer may be adjusted if a qualified biologist and the project applicant determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities shall be required if the activity has potential to

adversely affect the nest. If construction activities cause the nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the no-disturbance buffer shall be increased until the agitated behavior ceases. The exclusionary buffer shall remain in place until the chicks have fledged or as otherwise determined appropriate by a qualified biologist.

- If a Swainson's hawk or other raptor nest tree (any tree that has an active nest in the year the impact is to occur) must be removed, the tree shall be removed between September 1 and February 28, when not occupied.

Significance after Mitigation

Implementing Mitigation Measure 4.3-4 would reduce significant impacts on Swainson's hawk and nesting special-status birds, raptors, and other migratory birds to a **less-than-significant** level because this measure would require that active nests in or near the project site be identified and avoided or monitored so that project construction would not result in nest abandonment and loss of eggs or young, or displacement or loss of reproductive success of local nesting pairs.

Scenario B Option

Although the Scenario B option would retain the marina in its current configuration, development of the Marina/Miller Regional Park Special Study Area under this option would involve the development of smaller facilities for events and would likely still require some tree and vegetation removal within the special study area. Further, the proposed bridge crossings of the marina entrance and to the City of West Sacramento would also occur under this alternative. As a result, impacts under this option would be similar to the proposed project. Implementation of Mitigation Measure 4.3-4 would be required to reduce impacts to **less-than-significant** levels.

Impact 4.3-5: Loss or Disturbance of Valley Elderberry Longhorn Beetles and Their Habitat

Elderberry shrubs within riparian habitat provide suitable habitat for valley elderberry longhorn beetle. Removal of elderberry shrubs within the project site could result in loss of valley elderberry longhorn beetle and their habitat. This would be a **potentially significant** impact.

Valley elderberry longhorn beetles are dependent upon elderberry shrubs for egg-laying and development. The project site is known to contain elderberry shrubs adjacent to the railroad tracks within Miller Regional Park and in the riparian habitat along the Sacramento River.

Under the WBSP, potential development within the Marina/Miller Regional Park subarea includes a bike trail on the levee along the excursion train line, a new bike and pedestrian bridge to connect the current south end of the peninsula to the boat ramp area for Miller Regional Park, and the potential for a future bike and pedestrian bridge connecting Sacramento and West Sacramento. It is possible that some elderberry shrubs would need to be removed during construction of any of these facilities, if shrubs are present. Loss of elderberry shrubs could result in the loss of valley elderberry longhorn beetles, if present, and their habitat. This would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 4.3-5: Avoid Loss or Disturbance of Valley Elderberry Longhorn Beetle and Their Habitat

- Before project construction activities, a qualified biologist shall conduct surveys for valley elderberry longhorn beetle according to the protocol outlined in USFWS *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle* (USFWS 2017). The biologist shall determine if there are

elderberry shrubs within 250 feet of the project site. If no elderberry shrubs are located within 165 feet of the site, then no further action is required.

Take of valley elderberry longhorn beetle shall be avoided by following the Conservation Measures outlined in the USFWS 2017 Framework for cases where elderberry shrubs can be retained and protected within 165 feet of the project footprint.

- If elderberry shrubs are 165 feet or more from project activities, direct or indirect impacts are not expected. Shrubs shall be protected during construction by establishing and maintaining a high visibility fence at least 165 feet from the drip line of each elderberry shrub.
- If elderberry shrubs can be retained within the project footprint, project activities may occur up to 20 feet from the dripline of elderberry shrubs if precautions are implemented to minimize the potential for indirect impacts. Specifically, these minimization measures include:
  - All areas to be avoided during construction activities shall be fenced or flagged as close to construction limits as possible.
  - A minimum avoidance area of at least 20 feet from the dripline of each elderberry plant shall be maintained to avoid direct impacts that could damage or kill the plant.
  - A qualified biologist shall provide training for all contractors, work crews, and any onsite personnel on the status of valley elderberry longhorn beetle, its host plant and habitat, the need to avoid damaging the elderberry shrubs, and the possible penalties for non-compliance.
  - A qualified biologist shall monitor the work area at project-appropriate intervals to assure that all avoidance and minimization measures are implemented. The amount and duration of monitoring shall depend on the project specifics and shall be discussed with a USFWS biologist.
  - As much as feasible, all activities that could occur within 165 feet of an elderberry shrub shall be conducted outside of the flight season of the valley elderberry longhorn beetle (March – July).
  - Trimming of elderberry shrubs shall occur between November and February and shall avoid removal of any branches or stems that are greater than or equal to 1 inch in diameter to avoid and minimize adverse effects to valley elderberry longhorn beetle.
  - Project activities, such as truck traffic or other use of machinery, shall not create excessive dust on the project site, such that the growth or vigor of elderberry shrubs is adversely affected. Enforcement of a speed-limit and watering dirt roadways are potential methods to minimize excessive dust creation.
  - Herbicides shall not be used within the drip-line of any elderberry shrub. Insecticides shall not be used within 98 feet of any elderberry shrub. All chemicals shall be applied using a backpack sprayer or similar direct application method. Mechanical weed removal within the drip-line of any elderberry shrub shall be limited to the season when adults are not active (August – February) and shall avoid damaging the elderberry.
  - Erosion control shall be implemented, and the affected area shall be re-vegetated with appropriate native plants.
- If elderberry shrubs cannot be avoided, compliance with the ESA and consultation with USFWS is required and may involve acquiring an incidental take permit through Section 10, or a take exemption

through Section 7. All elderberry shrubs with stems greater than 1 inch in diameter that cannot be avoided shall be transplanted.

- No elderberry shrub shall be removed or transplanted until authorization has been issued by USFWS and the project applicant has abided by all pertinent conditions of the incidental take permit or biological opinion. Conservation and minimization measures are likely to include preparation of supporting documentation that describes methods for relocation of existing shrubs and maintaining existing shrubs and other vegetation in a conservation area.
- Relocation of existing elderberry shrubs and planting of new elderberry seedlings and associated riparian species shall be implemented according to the Framework (USFWS 2017). The Framework uses presence or absence of exit holes, and whether the affected elderberry shrubs are located in riparian habitat to determine the number of elderberry seedlings or cuttings and associated riparian vegetation that would need to be planted as compensatory mitigation for affected valley elderberry longhorn beetle habitat. Compensatory mitigation may include purchasing credits at a USFWS-approved conservation bank, providing on-site mitigation, or establishing and protecting habitat for valley elderberry longhorn beetle.

Significance after Mitigation

Implementation of Mitigation Measure 4.3-5 would reduce significant impacts to valley elderberry longhorn beetle to a **less-than-significant** level by requiring protection of elderberry shrubs or mitigation for removal of shrubs.

Scenario B Option

Similar to Impact 4.3-4 above, the Scenario B option would retain the marina in its current configuration, however some development of the Marina/Miller Regional Park Special Study Area would still occur within this area, although likely smaller facilities for events. As a result, it is considered likely that some tree and vegetation removal would still be required within the special study area. Further, the proposed bridge crossings of the marina entrance and to the City of West Sacramento would also occur under this alternative. As a result, potential impacts to impacts valley elderberry longhorn beetles and their habitat under this option would be similar to the proposed project. Implementation of Mitigation Measure 4.3-5 would be required to reduce impacts to **less-than-significant** levels.

Impact 4.3-6: Loss or Disturbance to Special-Status Bats, Bat Colonies, and Their Habitat.

Project construction activities, including tree removal, could result in disturbance to or loss of special-status and common bats colonies if present on the project site. Because the loss of special-status and common bat colonies could substantially affect the abundance, distribution, and viability of local and regional populations of these species, this would be a **potentially significant** impact.

Western red bat, a CDFW species of special concern, and other tree roosting bats could roost in the mature riparian trees along the Sacramento River and other trees throughout the Specific Plan Area. The development and redevelopment proposed in the West Broadway Gateway, The Mill, Alder Grove, Marina Vista, and Industrial subareas could result in removal of existing trees and vegetation that support bat roosts.

As noted previously, implementation of the WBSP within the Marina/Miller Regional Park subarea would result in reconfiguration of boat slips and construction of new facilities, both of which would likely require removal of existing trees and vegetation. Plan implementation also includes the potential for a future bike and pedestrian bridge connecting Sacramento and West Sacramento. As a result, Project activities could include removal of suitable roost trees or vegetation. Vegetation removal is expected to

be the minimal amount necessary for construction of bridge supports. Enhanced recreational opportunities and additional facilities could also result in increased noise and human disturbance to roost sites during operation of the additional facilities.

Removal of trees along the Sacramento River, and elsewhere within the Specific Plan Area, or construction-related disturbance associated with implementation of the proposed WBSP could result in the loss of western red bat or other tree roosting bats and their habitat. This would be a potentially significant impact.

Some species of bats may use buildings for day, maternity, or wintering roosts. Bats may roost in abandoned or little-used structures in wall sections, behind fascia, in spaces between vaulted interior ceiling and roofing materials, and in similar enclosed spaces that provide thermal protection. Species of bats known to roost in buildings in the downtown area include Mexican free-tailed bat (*Tadarida brasiliensis*) and big brown bat (*Eptesicus fuscus).* Neither is considered a special-status species, however, bat roosts can be considered an important biological resource. Pallid bat (*Antrozous pallidus)*, a CDFW species of special concern, could roost in buildings and structures in the Specific Plan Area, including in the West Broadway Gateway, The Mill, Alder Grove, Marina Vista, Industrial, and Marina/Miller Regional Park subareas, particularly in abandoned or seldom-used buildings and structures such as the rail tunnel under I-5.

The proposed WBSP includes improvements to the existing tunnel beneath I-5 to provide pedestrians and bikes a better connection to and from Miller Regional Park. The Mill and Industrial subareas include redevelopment or reuse of existing warehouses and vacant industrial structures. Redevelopment or reuse of these buildings or structures, improvements to the existing tunnel, or construction-related disturbance associated with project activities under the proposed WBSP could result in the loss of pallid bat or other cavity-roosting bat colonies. Increased use of the tunnel could also result in increased noise and human disturbance to roosts in the tunnel, if present, during operation of the improved tunnel. Loss of pallid bat or other cavity-roosting bats and their habitat would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 4.3-6: Avoid Loss or Disturbance of Special-Status Bat Species, Bat Colonies, and Their Habitat

- If the project would result in removal of trees or the removal or alteration of vacant or seldom-used buildings or structures, or construction activities would occur within 100 feet of potentially suitable roost habitat, a qualified bat biologist shall conduct a survey of the potentially suitable roost habitat. If no evidence of bat roosts is found, then no further study and no further mitigation shall be required.

- If evidence of bat use (e.g., guano, culled insect parts, staining) is observed, additional surveys shall be conducted by the bat biologist during each season (i.e. maternity, torpor/hibernation, and shoulder seasons) when bats may be affected by project activities to determine if bats are using the habitat for roosting during that specific season. If project activities shall result in permanent loss of roost habitat that was observed to contain evidence of bat use during the habitat suitability survey studies should be conducted during each season to determine if potential roosts are present seasonally or year-round. The species and number of bats using the roost shall be determined to the extent necessary to determine if loss of roost habitat would be a significant impact on the bat population and to develop an appropriate mitigation program. Bat detectors and/or emergence surveys may be used to supplement survey efforts.

- If bat roosts are found, a qualified bat biologist, in consultation with CDFW, shall develop a mitigation program to minimize impacts to the bat roost. The mitigation program may include:

- additional protective measures;
- avoidance buffers during periods of sensitive activity (e.g., during hibernation or maternity season);
- an exclusion plan; and
- a compensatory mitigation plan to provide alternative roost habitat. The plan shall require bat replacement habitat and monitoring of the replacement habitat over a 5-year period for a minimum of 3 years (e.g., years 2, 3, and 5) to determine whether bats are using the habitat, determine whether the habitat is functioning as intended, and identify any corrective actions that need to be made to the habitat to improve its use by bats.

Significance after Mitigation

Implementation of Mitigation Measure 4.3-6 would reduce significant impacts to special-status bats, bat colonies, and their habitat to a **less-than-significant** level by requiring avoidance of roosts or mitigation for loss of roosts and habitat.

Scenario B Option

Under the Scenario B option, development within the Specific Plan Area would be similar to the proposed project, except within the Marina/Miller Regional Park Study Area, where the marina would be maintained in its current configuration. Some development within the special study area would still occur under this option, however, it would be limited to smaller facilities for events. Further, the proposed bridge crossings of the marina entrance and to the City of West Sacramento would also occur under this alternative. As a result, potential impacts to potential bat roosts would be similar under this option, and implementation of Mitigation Measure 4.3-6 would be required to reduce impacts to **less-than-significant** levels.

Impact 4.3-7: Disturbance to California Sea Lion

WBSP implementation could include construction of a potential future bike and pedestrian bridge connecting Sacramento and West Sacramento and/or construction of a new bike and pedestrian bridge to connect the current south end of the peninsula to the boat ramp area for Miller Regional Park and could result in acoustic impacts on California sea lion. This would be a **potentially significant** impact.

Short-term impacts from construction noise associated with pile driving during construction of a potential future bike and pedestrian bridge connecting Sacramento and West Sacramento and/or construction of a new bike and pedestrian bridge to connect the current south end of the peninsula to the boat ramp area for Miller Regional Park could adversely impact California sea lion, if present in the Sacramento River. California sea lion are known to occasional reside in Sacramento waterways, including the Sacramento River, and are drawn inland when following prey such as migratory fish. Acoustic exposure could result in adverse effects on California sea lion hearing and behavior and this would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 4.3-7: Avoid or Minimize Hydroacoustic Impacts to California Sea Lion

- Conduct an acoustic effects analysis on California sea lion following the NMFS “Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0): Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold Shifts” (NMFS 2018) and completing the “Technical Guidance for Assessing the Effects of Anthropogenic Sound on

Marine Mammal Hearing: Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold Shifts" spreadsheet (NMFS 2016).

- if the hydroacoustic analysis determines there shall be adverse acoustic effects on California sea lion as a result of pile driving and other noise generating construction activities, additional measures (e.g., minimizing the number of piles driven in a day, using the smallest pile driver and minimum force necessary). shall be developed by a qualified biologist in consultation with NMFS to avoid and minimize acoustic impacts on California sea lion.

Significance after Mitigation

Implementation of Mitigation Measure 4.3-7 would reduce significant impacts to California sea lion to a **less-than-significant** level by requiring an acoustic effects analysis and avoiding or minimizing acoustic impacts.

Scenario B Option

As the proposed bridgeway connections anticipated under the WBSP would also occur under the Scenario B option, potential impacts to California sea lion similar under this option, and implementation of Mitigation Measure 4.3-7 would be required to reduce impacts to **less-than-significant** levels.

Impact 4.3-8: Impacts on State and Federally Protected Wetlands and Waters of the United States and Riparian Habitat

WBSP implementation could include construction of a potential future bike and pedestrian bridge connecting Sacramento and West Sacramento and/or construction of a new bike and pedestrian bridge to connect the current south end of the peninsula to the boat ramp area for Miller Regional Park would result in discharge of dredge or fill material into the Sacramento River, a water of the United States and could result in removal of riparian vegetation. This would be a **potentially significant** impact.

Implementation of the WBSP within the Marina/Miller Regional Park subarea would result in discharge of dredge and fill material into the Sacramento River, a water of the United States and alteration of bed and bank, including the potential removal of riparian and valley oak habitat present in thin strips along the banks of the marina. Plan implementation would also include the potential for a future bike and pedestrian bridge connecting Sacramento and West Sacramento and a new bike and pedestrian bridge to connect the current south end of the peninsula to the boat ramp area for Miller Regional Park. The proposed bike path alignment would include a section of trail adjacent to the railroad tracks on the east side of Miller Regional Park on an existing paved path through riparian habitat. Construction of either bridge would result in discharge of dredge and fill material into the Sacramento River, a water of the United States, and could result in alteration of bed and bank. In addition, bridge construction and proposed bike path could result in loss of sensitive natural communities, including valley oak woodland and other riparian habitats. Loss of riparian habitat is expected to be minimal because removal of vegetation would be restricted to the amount necessary for construction of bridge supports and enhancements to the bike path. Construction of bridge abutments would not result in a net loss of ecological function in the Sacramento River.

The potential loss of riparian vegetation, wetlands, and other waters of the United States would be considered a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 4.3-8a: Avoid Impacts to Sensitive Natural Communities

Before initiation of construction activities within the Marina/Miller Regional Park special study area, all sensitive areas, including riparian areas and sensitive natural communities, will be flagged or fenced with brightly visible construction flagging and/or fencing under the direction of the qualified biologist to ensure that grading, excavation, or other ground-disturbing activities will not occur within these areas. This delineation shall be consistent with and incorporate the USACE-approved preliminary jurisdictional determination or verified jurisdictional determination. Foot traffic by construction personnel will also be limited in these areas to prevent the introduction of invasive or weedy species. Periodic inspections during construction will be conducted by the monitoring biologist to ensure the integrity of exclusion fencing/flagging is maintained throughout the period of construction involving ground disturbance.

Mitigation Measure 4.3-8b: Obtain all Required Regulatory Authorizations if Project Development Would Result in the Fill of Waters of the United States

- Before any grading or construction activities within waters of the United States, the individual project applicant shall obtain Section 404 permit(s) for any project-related impacts, as appropriate. Any waters of the United States that would be affected by project development shall be replaced or restored on a “no-net-loss” basis in accordance with USACE mitigation guidelines (or the applicable USACE guidelines in place at the time of construction). In association with the Section 404 permit (if applicable) and before the issuance of any grading permit, Section 401 Water Quality Certification from the CVRWQCB shall be obtained.

- If project development would result in a permanent loss of acreage of wetlands or waters of the United States or riparian habitat, compensatory mitigation shall be provided in the form of payment to an in-lieu fee program.

Mitigation Measure 4.3-8c: Obtain All Required Regulatory Authorizations if Project Development Would Result in Impacts to Aquatic or Riparian Habitats within CDFW Jurisdiction

If it is determined that project development would affect the bed, bank, channel, or associated riparian habitat subject to CDFW jurisdiction under Fish and Game Code Section 1602, a Streambed Alteration Notification shall be submitted to CDFW, pursuant to Section 1600 et seq. of the California Fish and Game Code. If proposed activities are determined to be subject to CDFW jurisdiction, the project proponent shall abide by the conditions of any executed agreement before the issuance of a grading permit by Sacramento County.

Significance after Mitigation

Implementation of Mitigation Measure 4.3-8 would reduce impacts to wetlands, waters of the United States, riparian vegetation, and state jurisdictional wetlands and waters to a **less-than-significant** level because there would be no net loss of wetlands and potential indirect impacts to wetlands, waters of the United States, riparian vegetation, and state jurisdictional wetlands and waters would be avoided or mitigated and compensatory mitigation would be provided for permanent loss of wetlands or waters of the United States.

Scenario B Option

Although Scenario B would retain the marina in its current configuration and would not affect waters of the United States related to that improvement under the proposed project, the potential bridge crossings of the marina entrance and the Sacramento River would require permitting pursuant to the CWA and require permits from USACE and CVRWQCB. Additionally, potential minor development within the special study area, including an event space or staging area and approximately 5,000 square

feet of building development, could result in removal of riparian and valley oak habitat. Due to the potential impacts to sensitive natural communities and riparian areas, implementation of Mitigation Measures 4.3-8a through c would still be required to reduce impacts to **less-than-significant** levels.

Impact 4.3-9: Interruption of Migratory Corridors and Potential for Impacts on Fish Migration

Implementation of the proposed WBSP could include potential construction of a future bike and pedestrian bridge over the Sacramento River connecting Sacramento and West Sacramento. Construction of bridge would include in-water work producing noise and vibration that could adversely affect migratory fish in the Sacramento River. This would be a **potentially significant** impact.

The majority of the Specific Plan Area does not contain habitats that serve as significant wildlife corridors or contribute to habitat connectivity in the region. According to the California Essential Habitat Connectivity Project, the project is not located within a Natural Landscape Block or Essential Habitat Connectivity area (Spencer et al. 2010). The primary wildlife corridor for wildlife within the Specific Plan Area is the Sacramento River and associated riparian habitat. A variety of terrestrial species use the riparian habitat as foraging habitat, breeding sites, and cover areas. Riparian habitat occurs only within Miller Regional Park and while the WBSP proposes potential changes to this subarea, none of the proposed changes would substantially alter the ecological functions of the area because Miller Regional Park would continue to function as open space and continue to allow localized wildlife movement. Potential loss of riparian habitat as a result of implementation of the WBSP would only occur with the potential construction of a future bike and pedestrian bridge connecting Sacramento and West Sacramento and a new bike and pedestrian bridge to connect the current south end of the peninsula to the boat ramp area for Miller Regional Park and the minimal loss of riparian habitat associated with these features would be compensated.

Migratory fish utilize the Sacramento River adjacent to the project site. Construction of the potential bridge connecting Sacramento and West Sacramento would include in-water activities, including work that would generate noise and vibrations within the Sacramento River. Hydroacoustic, lighting, water quality, the introduction and spread of aquatic invasive species, fish entrapment, and loss of habitat associated with in-water construction activities could adversely affect migrating fish within the Sacramento River, if present, potentially resulting in loss of or injury to migrating fish.

Mitigation Measures

Mitigation Measure 4.3-9: Implement Mitigation Measures 4.3-2 and 4.3-8

The project applicant shall implement Mitigation Measures 4.3-2, which requires avoiding or minimizing hydroacoustic, lighting, and water quality impacts, preventing the introduction and spread of aquatic invasive species, minimizing fish entrapment and mortality, and compensating for loss of habitat, and Mitigation Measure 4.3-8 which requires avoiding, minimizing, or compensating for loss of riparian habitat.

Significance after Mitigation

Implementation of Mitigation Measure 4.3-9 would reduce significant impacts to migratory corridors and migrating fish species to a **less-than-significant** level by avoiding or minimizing hydroacoustic, lighting, and water quality impacts, preventing the introduction and spread of aquatic invasive species, minimizing fish entrapment and mortality, and compensating for loss of habitat.

Scenario B Option

As the proposed bridgeway connections anticipated under the WBSP would also occur under the Scenario B option, potential impacts to fish migration would be similar under this option, and

implementation of Mitigation Measure 4.3-7 would be required to reduce impacts to **less-than-significant** levels.

Impact 4.3-10: Consistency with the City of Sacramento Tree Preservation Ordinance; Loss of and Damage to Protected Trees

Implementation of the WBSP could result in adverse effects to "city" or "private protected" trees as defined in the City of Sacramento Tree Preservation Ordinance (City of Sacramento 2019). Removal of or regulated work on a "city" or "private protected" trees would be a **potentially significant** impact.

Implementation of the proposed WBSP in the West Broadway Gateway, The Mill, Alder Grove, Marina Vista, and Industrial subareas could result in removal or damage to "city" or "private protected" trees as defined by the City of Sacramento Tree Preservation Ordinance (City of Sacramento 2019). A city tree is defined as any tree the trunk of which, when measured 4.5 feet above ground, is partially or completely located in a city park, on real property the city owns in fee, or on a public right-of-way, including any street, road, sidewalk, park strip, mow strip, or alley. A private protected tree is defined as a tree that is designated by city council resolution to have special historical value, special environmental value, or significant community benefit, and is located on private property; any native valley oak, blue oak, interior live oak, coast live oak, California buckeye, or California sycamore, that has a diameter at standard height (DSH) of 12 inches or more, and is located on private property; a tree that has a DSH of 24 inches or more located on private property that is an undeveloped lot or does not include any single or duplex dwellings; or a tree that has a DSH of 32 inches or more located on private property that includes any single unit or duplex dwellings.

Construction activities could also result in regulated work on protected trees. Regulated work is defined as planting a city tree, or any act that could adversely impact the health of a city tree or private protected tree. Under the WBSP and as noted above, reconfiguration of boat slips and construction of new facilities could occur, both of which would likely require removal of or regulated work on existing protected trees. Further, the potential bike and pedestrian bridge connecting Sacramento and West Sacramento, a new bike and pedestrian bridge to connect the current south end of the peninsula to the boat ramp area for Miller Regional Park, and a new bike trail on the levee along the excursion train line may also occur and could include removal of or regulated work on protected trees. Removal or regulated work on protected trees would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 4.3-10a: Obtain a Tree Permit for Removal of Protected Trees

- As part of project design, the applicant shall retain a certified arborist to survey trees in the proposed project corridor, including potential contractor laydown areas, and identify and evaluate trees that shall be removed. The arborist shall also identify and evaluate protected trees that may require regulated work. If the arborist's survey does not identify any protected trees that would be removed or damaged or require regulated work as a result of the proposed project, no further mitigation is necessary.

- If the arborist identifies protected trees that would be removed or damaged or protected trees that would be retained but recommends pruning or protected trees that would require regulated work, the project applicant shall obtain a tree permit from the director of department of parks or the director's designee for city trees located in city parks, or the director of the department of public works or the director's designee for all other city trees.

- Abide by the conditions of the tree permit, including potential requirements to provide replacement of city trees or privately protected trees.

Mitigation Measure 4.3-10b: Minimize Construction Effects on Protected Trees to Be Retained

- Retain a certified arborist to oversee protection of protected trees to be retained on the project site.
- Any tree or root pruning required for construction shall first be approved by the certified arborist.
- Any injuries to retained trees shall be evaluated as soon as possible by the certified arborist for appropriate treatment.

Significance after Mitigation

Implementation of Mitigation Measure 4.3-10 would reduce significant impacts to protected trees to a **less-than-significant** level by maintaining consistency with the City of Sacramento tree preservation ordinance and protection of the trees or requiring a tree permit for removal of or regulated work on all protected trees.

Scenario B Option

Implementation of the Scenario B option would retain the marina in its current configuration, however some development of the Marina/Miller Regional Park Special Study Area would still occur within this area, although likely smaller facilities for events. As a result, it is considered likely that some tree removal would still be required within the special study area. Further, the potential redevelopment of Marina Vista and Alder Grove, as well as the proposed bridge crossings and other bikeway connections, would also occur under this alternative. As a result, potential impacts to protected trees under this option would be similar to the proposed project. Implementation of Mitigation Measure 4.3-10 would be required to reduce impacts to **less-than-significant** levels.

CUMULATIVE IMPACTS

Impact 4.3-11: Potential for the Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Biological Resources

Implementation of the WBSP, in combination with other cumulative development in the area, could result in impacts to sensitive biological resources in the area. However, through the implementation of plan-specific mitigation measures, the contribution of the WBSP would be less than cumulatively considerable. Impacts would be **less than significant**.

The geographic scope considered for the purposes of assessing cumulative impacts of direct and indirect effects on biological resources is the Sacramento metropolitan area and the larger Sacramento Valley to include consideration of certain species life history and extent of current habitat. Biological resources in the Sacramento region have been subject to extensive modification and loss of habitat because of urban and flood control development in the city and surrounding areas.

An overall trend of urban and suburban development is planned throughout the region within the vicinity of the project. Development within the vicinity of the project includes in-fill development, and some conversion of agricultural and natural habitats. Significant adverse impacts on sensitive habitats and special-status species would be associated with this future urban growth. The EIR for the City 2035 General Plan update indicates that if the 2035 General Plan policies and programs to preserve conservation and open space elements, and project mitigation measures, were implemented, the impacts to wetland and riparian habitats would be less than significant but the impacts to special-status species and their habitats from future development in the city and the greater Sacramento Valley would be significant and unavoidable (City of Sacramento 2015).

Impacts to special-status plant and wildlife species, and sensitive natural communities, from projects in the region would be the same as those described in Section 4.3, “Biological Resources,” of this EIR. This cumulative impact would be cumulatively considerable.

All potential cumulative projects implemented as part of the WBSP must comply with federal, state, and local regulations, including ESA, CESA, CWA, and CEQA regarding listed or other protected species and habitats. Potential impacts to special-status plants, special-status wildlife, and sensitive natural communities will require mitigation to reduce project impacts to a less-than-significant level.

As described in Section 4.3, “Biological Resources,” development in the Specific Plan Area could contribute to cumulative impacts to special-status plants, western pond turtle, special-status and non-special-status migratory birds and raptors, including Swainson’s hawk, valley elderberry longhorn beetle, bat colonies, special-status fish species, California sea lion, waters of the United States, and riparian habitat, and protected trees. Through full implementation of the mitigation measures, potential project-related impacts would be avoided, reduced, or compensated to such an extent that they are not expected to not result in a considerable contribution to a cumulative impact. Additionally, the permanent conversion and loss of natural habitat as a result of the project would be limited to the potential construction of the bike and pedestrian bridge connecting Sacramento and West Sacramento. Therefore, the project would not result in a cumulatively considerable incremental contribution to a cumulatively significant biological resource impact; the cumulative impact would be less than significant.

Mitigation Measures

No additional mitigation is required to reduce the project’s contribution to cumulative impacts.

4.4 CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

This section analyzes and evaluates the potential impacts of the project on known and unknown cultural resources. Cultural resources include districts, sites, buildings, structures, or objects generally older than 50 years and considered to be important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. They include pre-historic resources, historic-era resources, and "tribal cultural resources" (the latter as defined by Assembly Bill (AB) 52, Statutes of 2014, in Public Resources Code [PRC] Section 21074).

Archaeological resources are locations where human activity has measurably altered the earth or left deposits of prehistoric or historic-era physical remains (e.g., stone tools, bottles, former roads, house foundations). Historical (or architectural) resources include standing buildings (e.g., houses, barns, outbuildings, cabins) and intact structures (e.g., dams, bridges, roads, districts), or landscapes. A cultural landscape is defined as a geographic area (including both cultural and natural resources and the wildlife therein), associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. Tribal cultural resources were added as a resource subject to review under CEQA, effective January 1, 2015 under AB 52. This is a new category of resources under CEQA and includes site features, places, cultural landscapes, sacred places or objects, which are of cultural value to a Tribe.

Two comment letters regarding cultural resources was received in response to the Notice of Preparation for the EIR (see Appendix B). The Native American Heritage Commission (NAHC) requested AB 52 and SB 18 compliance information; SB 18 does not apply to the WBSP because there is no general plan amendment associated with the Plan (which is the trigger for SB 18 compliance), SB 18 is not a CEQA requirement and therefore is not discussed in this section. AB 52 compliance is described below. Additional comments were raised with regard to identified and eligible historic resources in the Specific Plan Area and have been addressed below.

4.4.1 Regulatory Setting

FEDERAL

Section 106 of the National Historic Preservation Act

Federal protection of resources is legislated by (a) the National Historic Preservation Act (NHPA) of 1966 as amended by 16 U.S. Code 470, (b) the Archaeological Resource Protection Act of 1979, and (c) the Advisory Council on Historical Preservation. These laws and organizations maintain processes for determination of the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP).

Section 106 of the NHPA and accompanying regulations (36 Code of Federal Regulations [CFR] Part 800) constitute the main federal regulatory framework guiding cultural resources investigations and require consideration of effects on properties that are listed in, or may be eligible for listing in the NRHP. The NRHP is the nation's master inventory of known historic resources. It is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, and cultural districts that are considered significant at the national, state, or local level.

The formal criteria (36 CFR 60.4) for determining NRHP eligibility are as follows:

1. The property is at least 50 years old (however, properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the NRHP);
2. It retains integrity of location, design, setting, materials, workmanship, feeling, and associations; and
3. It possesses at least one of the following characteristics:

   Criterion A. Association with events that have made a significant contribution to the broad patterns of history (events).

   Criterion B. Association with the lives of persons significant in the past (persons).

   Criterion C. Distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant, distinguishable entity whose components may lack individual distinction (architecture).

   Criterion D. Has yielded, or may be likely to yield, information important to prehistory or history (information potential).

Listing in the NRHP does not entail specific protection or assistance for a property but it does guarantee recognition in planning for federal or federally-assisted projects, eligibility for federal tax benefits, and qualification for federal historic preservation assistance. Additionally, project effects on properties listed in the NRHP must be evaluated under CEQA.

The National Register Bulletin also provides guidance in the evaluation of archaeological site significance. If a heritage property cannot be placed within a particular theme or time period, and thereby lacks “focus,” it is considered not eligible for the NRHP. In further expanding upon the generalized National Register criteria, evaluation standards for linear features (such as roads, trails, fence lines, railroads, ditches, flumes, etc.) are considered in terms of four related criteria that account for specific elements that define engineering and construction methods of linear features: (1) size and length; (2) presence of distinctive engineering features and associated properties; (3) structural integrity; and (4) setting. The highest probability for National Register eligibility exists within the intact, longer segments, where multiple criteria coincide.

STATE

California Environmental Quality Act

CEQA requires public agencies to consider the effects of their actions on both “historical resources” and “unique archaeological resources.” Pursuant to PRC Section 21084.1, a “project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” Section 21083.2 requires agencies to determine whether projects would have effects on unique archaeological resources.

Historical Resources

“Historical resource” is a term with a defined statutory meaning (PRC, Section 21084.1; determining significant impacts to historical and archaeological resources is described in the State CEQA Guidelines, Sections 15064.5[a] and [b]). Under State CEQA Guidelines Section 15064.5(a), historical resources include the following:

1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (PRC, Section 5024.1).

2) A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be historically significant if the resource meets the criteria for listing in the California Register of Historical Resources (Public Resources Code, Section 5024.1), including the following:

    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 prehistory or history.

4) The fact that a resource is not listed in or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code), or identified in a historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Section 5020.1(j) or 5024.1.

Unique Archaeological Resources

CEQA also requires lead agencies to consider whether projects will impact unique archaeological resources. Public Resources Code, Section 21083.2, subdivision (g), states that unique archaeological resource means an 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:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.

3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Tribal Cultural Resources

CEQA also requires lead agencies to consider whether projects will impact tribal cultural resources. Public Resources Code, Section 21074 states the following:

a) "Tribal cultural resources" are 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.

c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

California Register of Historical Resources

All properties in California that are listed in or formally determined eligible for listing in the NRHP are eligible for the CRHR. The CRHR is a listing of State of California resources that are significant within the context of California's history. The CRHR is a statewide program of similar scope and with similar criteria for inclusion as those used for the NRHP. In addition, properties designated under municipal or county ordinances are also eligible for listing in the CRHR.

A historic resource must be significant at the local, state, or national level under one or more of the criteria defined in the California Code of Regulations Title 15, Chapter 11.5, Section 4850 to be included in the CRHR. The CRHR criteria are similar to the NRHP criteria and are tied to CEQA because any resource that meets the criteria below is considered a significant historical resource under CEQA. As noted above, all resources listed in or formally determined eligible for the NRHP are automatically listed in the CRHR.

The CRHR uses four evaluation criteria:

1. Is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.

2. Is associated with the lives of persons important to local, California, or national history.

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values.

4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

Similar to the NRHP, a resource must meet one of the above criteria and retain integrity. The CRHR uses the same seven aspects of integrity as the NRHP.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. The Act requires that upon discovery of human remains, construction or excavation activity cease and the County coroner be notified. If the remains are of a Native American, the coroner must notify NAHC, which notifies and has the authority to designate the most likely descendant (MLD) of the deceased. The Act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.

Health and Safety Code, Sections 7052 and 7050.5

Section 7052 of the Health and Safety Code states that the disturbance of Native American cemeteries is a felony. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the NAHC.

Public Resources Code, Section 5097

PRC Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal land. The disposition of Native American burial falls within the jurisdiction of the NAHC. Section 5097.5 of the Code states the following:

> 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, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

Assembly Bill 52

AB 52, signed by the California Governor in September of 2014, establishes a new class of resources under CEQA: “tribal cultural resources.” It requires that lead agencies undertaking CEQA review must, upon written request of a California Native American tribe, begin consultation once the lead agency determines that the application for the project is complete, before the issuance of a NOP of an EIR or notice of intent to adopt a negative declaration or mitigated negative declaration. AB 52 also requires revision to CEQA Appendix G, the environmental checklist. This revision would create a new category for “tribal cultural resources.”

LOCAL

City of Sacramento Historic Preservation Program

The City’s historic preservation program began in 1975 with the enactment of the City’s first historic preservation ordinance. Amendments to the original preservation ordinance, under Ordinance No. 2006-063, were enacted in October 2006, amending Chapter 17.134 of Title 17 of the Sacramento City Code. On September 30, 2013, these sections of the Code were included in a comprehensive update of Title 17. Under the new Title 17, the substance of the preservation sections was not materially changed, and changes related to procedures were also relatively minor. Title 17, section 17.604.210 relates to eligibility criteria for historic resources. Other preservation related matters are found under Chapter 17.604 or other sections of Title 17. The City Code provides for the compilation of the ordinances, adopting designations and deletions of Landmarks, Contributing Resources, and Historic Districts into the Sacramento Register.

City of Sacramento 2035 General Plan

The City of Sacramento 2035 General Plan contains the following policies related to archaeological, historical, and tribal cultural resources.

GOAL HCR 2.1: Identification and Preservation of Historic and Cultural Resources. Identify and preserve the city's historic and cultural resources to enrich our sense of place and our understanding of the city's prehistory and history.

- **Policy HCR 2.1.1: Identification.** The City shall identify historic and cultural resources including individual properties, districts, and sites (e.g., archaeological sites) to ensure adequate protection of these resources.

- **Policy HCR 2.1.2: Applicable Laws and Regulations.** The City shall ensure compliance with City, State, and Federal historic preservation laws, regulations, and codes to protect and assist in the preservation of historic and archaeological resources, including the use of the California Historical Building Code as applicable. Unless listed in the Sacramento, California, or National registers, the City shall require discretionary projects involving resources 50 years and older to evaluate their eligibility for inclusion on the California or Sacramento registers for compliance with the California Environmental Quality Act.

- **Policy HCR 2.1.3: Consultation.** The City shall consult with appropriate organizations and individuals (e.g., California Historical Resources Information System (CHRIS) Information Centers, the Native American Heritage Commission (NAHC), the CA Office of Planning and Research (OPR) "Tribal Consultation Guidelines," etc.,) and shall establish a public outreach policy to minimize potential impacts to historic and cultural resources.

- **Policy HCR 2.1.5: National, California, and Sacramento Registers.** The City shall support efforts to pursue eligibility and listing for qualified resources including historic districts and individual resources under the appropriate National, California, or Sacramento registers.

- **Policy HCR 2.1.7: Historic Resource Property Maintenance.** The City shall encourage maintenance and upkeep of historic resources to avoid the need for major rehabilitation and to reduce the risks of demolition, loss through fire or neglect, or impacts from natural disasters.

- **Policy HCR 2.1.11: Compatibility with Historic Context.** The City shall review proposed new development, alterations, and rehabilitation/remodels for compatibility with the surrounding historic context. The City shall pay special attention to the scale, massing, and relationship of proposed new development to surrounding historic resources.

- **Policy HCR 2.1.12: Contextual Features.** The City shall promote the preservation, rehabilitation, restoration, and/or reconstruction, as appropriate, of contextual features (e.g., structures, landscapes, street lamps, signs) related to historic resources.

- **Policy HCR 2.1.15: Demolition.** The City shall consider demolition of historic resources as a last resort, to be permitted only if the rehabilitation of the resource is not feasible, demolition is necessary to protect the health, safety, and welfare of its residents, or the public benefits outweigh the loss of the historic resource.

- **Policy HCR 2.1.16: Archeological & Cultural Resources.** The City shall develop or ensure compliance with protocols that protect or mitigate impacts to archaeological and cultural resources including prehistoric resources.

- **Policy HCR 2.1.17: Preservation Project Review.** The City shall review and evaluate proposed development projects to minimize impacts on identified historic and cultural resources, including projects on Landmark parcels and parcels within Historic Districts, based on applicable adopted criteria and standards.

The City of Sacramento 2035 Land Use Element also includes the following goal and policy pertaining to the analysis of effects on cultural resources.

GOAL LU 1.1: Growth and Change. Support sustainable growth and change through orderly and well-planned development that provides for the needs of existing and future residents and businesses, ensures the effective and equitable provision of public services, and makes efficient use of land and infrastructure.

- **Policy LU 2.4.2: Responsiveness to Context.** The City shall require building design that respects and responds to the local context, including use of local materials where feasible, responsiveness to Sacramento's climate, and consideration of cultural and historic context of Sacramento's neighborhoods and centers.

4.4.2 Environmental Setting

SPECIFIC PLAN AREA

The West Broadway Specific Plan (WBSP) Specific Plan Area is located in the city of Sacramento and is centrally located in the greater Sacramento region. The Specific Plan Area encompasses the Upper Land Park neighborhood of Sacramento, south of the Central City, and across the Sacramento River from the Pioneer Bluffs and Stone Locks areas of West Sacramento. The Specific Plan Area includes approximately 240 acres and is bounded by the Sacramento River on the west; Broadway and Business 80/U.S. Highway 50 (U.S. 50) to the north; Muir Way and 5th Street to the east; and 4th Avenue and Merkley Way to the south. The western portion of the Specific Plan Area, including Miller Regional Park and the industrial lands east is separated from the remainder of the Specific Plan Area by Interstate 5 (I-5).

REGIONAL PREHISTORY

Human occupation in northwest California is generally subdivided into distinct time periods, each of which is marked by various adaptive patterns and geographical distributions. Regional northwest California archaeology is divided into the following chronological sequence: Paleo-Indian (11,500–8550 cal [calibrated] BP [before present]), Lower Archaic (8550–5550 cal BP), Middle Archaic (5550–550 cal BP), Upper Archaic (550 cal BP–cal A.D. [anno Domini] 1100), and Emergent or Late Prehistoric Period (cal A.D. 1100–Historic Contact).

Paleo-Indian and Lower Archaic Periods (11,500–5550 cal BP)

Few archaeological sites have been found in the Sacramento Valley that date to the Paleo-Indian or the subsequent Lower Archaic. Large segments of the landscape throughout the central California lowlands have been buried or removed by periodic episodes of deposition or erosion. It is estimated that Paleo-Indian and Lower Archaic sites along the lower stretch of the Sacramento River and San Joaquin River drainage systems had been buried by Holocene alluvium and are inaccessible.

The archaeological evidence that is available for the Paleo-Indian Period is comprised primarily by basally thinned, fluted projectile points. In the Central Valley, fluted points have been recovered from remnant features of the Pleistocene landscape at only three archaeological localities in Merced County, Tracey Lake in San Joaquin County, and Tulare Lake basin in Kings County. In the Central Valley, the Lower Archaic Period is mainly represented by isolated finds as the early landscape was buried by natural alluvial fan and floodplain deposition. Cultural material dating to this period includes stemmed projectile point, chipped stone crescents, and the remains of fish, birds, and shellfish (NIC 2019).

Middle Archaic Period/Windmiller Pattern (5550–550 cal BP)

In the Sacramento region, the Windmiller Pattern dates to the Middle Archaic Period. The archaeological record in the valley and foothills indicates that this period included a wide range of natural resources (e.g., plants, small and large mammals, fish, and waterfowl) Because of this, populations may have occupied lower elevations during the winter and shifted to higher elevations in the summer. Windmiller Pattern sites have yielded abundant remains of terrestrial fauna (deer, tule elk, pronghorn, and rabbits) and fish (sturgeon, salmon, and smaller fishes). A variety of fishing implements such as angling hooks, composite bone hooks, spears, and baked clay artifacts, which may have been used as net or line sinkers, are also relatively common. The presence of milling implements (grinding slabs, handstones, and mortar fragments) indicate acorns or seeds were an important part of the Middle Archaic diet.

The variety of artifacts recovered from Windmiller Pattern sites includes shell beads, ground and polished charmstones, and bone tools, as well as impressions of twined basketry. Baked clay items include pipes, discoids, and cooking “stones” as well as the net sinkers. Burials in cemetery areas, which were separate from habitation areas, were accompanied by a variety of grave goods. The presence of an established trade network is indicated by the recovery of Olivella shell beads, obsidian tools, and quartz crystals. Obsidian sources during the Middle Archaic included quarries in the North Coast Ranges, eastern Sierra, and Cascades (NIC 2019).

Upper Archaic Period/Berkeley Pattern (550 cal BP- cal A.D. 1100)

The Upper Archaic is characterized by a shift over a 1,000-year period to the more specialized, adaptive Berkeley Pattern. Excavated archaeological sites signal an increase in mortars and pestles, as well as archaeobotanical remains, accompanied by a decrease in slab milling stones and handstones. Innovations such as new types of shell beads, charmstones, bone tools, and ceremonial blades are additional evidence of the more specialized technology present during this period. Trade networks brought obsidian toolstone to the Central Valley from the North Coast Ranges and the east side of the Sierra Nevada Range.

The artifact assemblage in Berkeley Pattern sites demonstrates that populations continued to utilize a variety of natural resources. In addition to seeds and acorns, hunting persisted as an important aspect of food procurement. Large, mounded villages that developed in the Delta region included accumulations of habitation debris and features, such as hearths, house floors, rock-lined ovens, and burials. The remains of a variety of aquatic resources in the large shell midden/mounds that developed near salt or fresh water indicate exploitation of shellfish. Berkeley Pattern artifact assemblages are also characterized by Olivella shell beads, Haliotis ornaments, and a variety of bone tool types. Mortuary practices continued to be dominated by interment (burial), although a few cremations have been discovered at sites dating to this period (NIC 2019).

Emergent Period/Augustine Pattern (cal A.D. 1100-Historic Contact)

The Emergent Period in the lower Sacramento Valley is represented by the Augustine Pattern, a widespread central California pattern. The Emergent Period was shaped by a number of cultural

innovations, such as the bow and arrow and more elaborate and diverse fishing technology, as well as an elaborate social and ceremonial organization. Cultural patterns typical of the Emergent Period are reflected in the cultural traditions known from historic period Native American groups.

The faunal and botanical remains recovered at Emergent Period archaeological sites indicate the occupants relied on a diverse assortment of mammals, fish, and plant parts, including acorns and pine nuts. Hopper mortars, shaped mortars and pestles, and bone awls used to produce coiled baskets are among the variety of artifacts recovered from Augustine Pattern sites. The appearance of ceramics during this period is likely a direct improvement on the prior baked clay industry.

During the Emergent Period, numerous villages, ranging in size from small to large, were established along the valley floor sloughs and river channels and along the foothills sidestreams. The increase in sedentism and population growth led to the development of social stratification, with an elaborate social and ceremonial organization. Mortuary practices changed to include flexed burials, cremation of high-status individuals, and pre-interment burning of offerings. Currency, in the form of clamshell disk beads, also developed during this period together with extensive exchange networks (NIC 2019).

ETHNOGRAPHY

The Specific Plan Area is located at the interface of lands historically occupied by the Nisenan and Plains Miwok (also Mi-wuk). Before Euro-American contact, Plains Miwok territory included the lower Mokelumne River, Cosumnes River, and the Sacramento River from Rio Vista to Freeport. Nisenan (also known as the southern Maidu) lands included the southern extent of the Sacramento Valley, east of the Sacramento River between the North Fork Yuba River and Cosumnes Rivers on the north and south, respectively, and extended east into the foothills of the Sierra Nevada Range.

Large villages located on the east bank of Sacramento River in the vicinity of the WBSP included the Nisenan villages of Sama and Momol near the City of Sacramento and the Plains Miwok village of Hulpumne near Freeport. Villages, as well as seasonally occupied campsites, were used at various times during the seasonal round of subsistence activities associated with hunting, fishing, and gathering plant resources. A number of archaeological sites and prehistoric burials have been identified within their territories in the lower Sacramento Valley/Delta region.

The Nisenan and Plains Miwok relied on acorns as a staple food. These seasonally mobile hunter-gatherers also relied on a wide range of abundant natural resources that were available in their territories. Large and small mammals, such as pronghorn antelope, deer, tule elk, black bears, cottontails, and jackrabbits, among other species, were hunted by individuals or by communal groups. Game birds, waterfowl, and fish, particularly salmon, were also important components of the Nisenan and Plains Miwok diet. In addition to acorns, plant resources included pine nuts, buckeye nuts, hazelnuts, fruits, berries, seeds, and underground tubers. Bow and arrow, snares, traps, nets, and enclosures or blinds were used for hunting land mammals and birds. For fishing, they made canoes from tule, balsa, or logs, and used harpoons, hooks, nets, and basketry traps. To collect plant resources, the two groups used sharpened digging sticks, long poles for dislodging acorns and pinecones, and a variety of woven tools (seed beaters, burden baskets, and carrying nets). Both the Nisenan and Miwok participated in an extensive east-west trade network between the coast and the Great Basin. Coastal trade brought marine shell (Olivella and abalone) and steatite.

The traditional cultural and lifeways of the Nisenan and Plains Miwok were disrupted beginning in the early 1800s as part of Spanish settlement and missionization. During the Mexican period, native peoples were affected by land grant settlements and decimated by foreign disease epidemics that

swept through the densely populated Central Valley. An epidemic that swept the Sacramento Valley in 1833 caused the death of an estimated 75 percent of the Valley Nisenan population, wiping out entire villages. The discovery of gold in 1848 at Sutter's Mill also impacted Nisenan, Miwok, and other Native American Groups. By 1850, with their lands, resources and way of life being overrun by the steady influx of nonnative people during the Gold Rush, surviving Nisenan or Plains Miwok retreated to the foothills and mountains or labored for the growing ranching, farming, and mining industries (NIC 2019).

HISTORIC SETTING

Regional History

Although there were brief visits by Spanish, Russian, and British explorers from 1529 to 1769, the beginning of Spanish settlement in California occurred in 1769 at San Diego. Over the next 50 years, the Spanish government with the aid of various Roman Catholic orders established 21 missions along the coast between San Diego and San Francisco. The Spanish expeditions into the Central Valley in 1806 and 1808 led by Lieutenant Gabriel Moraga explored along the main rivers, including the American, Calaveras, Cosumnes, Feather, Merced, Mokelumne, Sacramento, San Joaquin, and Stanislaus. He is said to have named the lower Sacramento River and the valley region "Sacramento" ("the Holy Sacrament").

The Mexican Period is marked by an extensive era of land grants, most of which were in the interior of the state, as well as by exploration by American fur trappers west of the Sierra Nevada Mountains. One of the largest land grants in the Sacramento Valley was awarded to John Sutter. In 1839, he founded a trading and agricultural empire called New Helvetia that was headquartered at Sutter's Fort near the divergence of the Sacramento and American rivers in today's City of Sacramento.

The first American trapper to enter California, Jedediah Smith, entered the Sacramento Valley in 1827. Other trappers soon followed, including employees of the Hudson's Bay Company in 1832. Around this time (as discussed above), diseases introduced by the non-indigenous explorers, trappers, and settlers, as well as relocation to the missions, military raids, and settlement by non-native groups, decimated native Californian populations, communities, and tribes in the Sacramento and San Joaquin valleys

The American Period was initiated in 1848 with the signing of the Treaty of Guadalupe Hidalgo, which ended the Mexican–American War. Gold was discovered at Sutter's Mill on the American River in Coloma the same year, and by 1849, nearly 90,000 people had journeyed to the gold fields. In 1850, largely as a result of the Gold Rush, California became the thirty-first state. In contrast to the economic boom and population growth that enabled statehood, the loss of land and territory (including traditional hunting and gathering locales), malnutrition, starvation, and violence further contributed to the decline of indigenous Californians in the Central Valley and along the Sierra Nevada foothills (NIC 2019).

Local History

In 1849, one year after the discovery of gold at Sutter's Mill, a portion of Sutter's Mexican land grant became the bustling Gold Rush boomtown of Sacramento. A grid pattern for the town, with east-west streets designated by numbers and north-south streets by letters of the alphabet, was developed by Sutter's surveyor in 1848 on the land east of the embarcadero (Front Street). The original grid, which survives today, extended east from the Sacramento River (Front Street) to just beyond Sutter's Fort, and south from Sutter's Slough (approximately 6th and I streets) to Broadway (then Y Street).

Only one year after it was founded, Sacramento was incorporated as a city in 1850. By 1853, the City had 12 stage lines and was later the westernmost point of the Pony Express (1860–1861) and the terminal of the first California railroad, the Sacramento Valley Railroad, which ran 22 miles east to

Folsom. By 1853, the population of the state exceeded 300,000 and in 1854, the bustling boomtown of Sacramento became the state capital.

Sacramento and the greater Sacramento–San Joaquin Delta region have a lengthy history of land reclamation and levee construction. The first levee was built around the City in 1850, and was constructed, operated, and maintained by the City. In 1878, due to severe flooding issues, the City dug a new mouth for the American River and elevated the streets between Front and 12th streets and between I and L by 4 to 15 feet. By 1878, an additional levee was built along Y Street (now Broadway) to deter flooding northward into the City core.

The Central Pacific Railroad was established in 1861 by Leland Stanford, Collis Huntington, Mark Hopkins, and Charles Crocker, and construction began in 1862. The First Transcontinental Railroad, which was completed in 1862, introduced thousands of new settlers and immigrants to California. Rail service was expanded in 1870 southward from Sacramento into the San Joaquin Valley with construction of the Southern Pacific line of the Central Pacific Railroad.

Between 1909 and 1929, the Southern Pacific Railroad built a branch line along the Sacramento River that served the orchard farmers of the Sacramento River Delta. The rail line was built atop the elevated levee south from Sacramento to Isleton. Initially planned to be a 100-mile mainline between the Bay Area and Stockton, the Walnut Grove Branch Line remained a branch feeder, with freight service terminated in 1978. Much of the branch line between Sacramento and Hood was acquired by the California State Railroad Museum. The route transects the current Specific Plan Area between I-5 and the Sacramento Marina/Miller Park. By the early 20th century, Sacramento had four electric interurban railroads, including the Central California Traction Company and Sacramento Northern Railway (SN Railway), both of which operated along a route approximating present-day X Street north of and paralleling Broadway (formerly Y Street).

Development south of Y Street (now Broadway) began in earnest after 1923 when the Y Street levee was moved and improved flood protection was provided to the formerly swampy area now known as Land Park. Before removal of the levee, the area was partially used to deposit raw sewage via drainage ditches and partially as a “flood spill” area when the levees were opened to prevent flooding of the City core.

By the 1920s, truck freighting companies began moving into the area to capitalize on the intersection of transportation networks. In 1927, a large collection of former agricultural lands located east of the Sacramento River and south of Y Street, known as the Wright and Kimbrough Industrial Tract, opened for development. Among the industrial and warehouse ventures established on the tract were the Setzer Box Factory and the Sacramento Farmers Market. The location of both ventures is within the current Specific Plan Area.

The wooden box industry had been established in Sacramento in the 1850s in connection with the region’s emergence as one of the largest agricultural production, processing, and shipping centers in California. Production at the Setzer Box Factory, which had opened at 3rd and Y streets in 1927, peaked during the 1930s to 1950s. Removal of the Southern Pacific tracks, which serviced the factory, for construction of I-5 in the 1960s led to a substantial decline in business, despite some product diversification as Setzer Forest Products. In 2010, carrier service to the facility was being provided by the California Railroad Museum, via a rail tunnel under I-5 to Front Street and Miller Park. More recently, the Setzer Forest Products 32-acre property was sold to a private developer for the construction of The Mill at Broadway (initially referred to as the Northwest Land Park Project), for which infrastructure began construction in 2014. The residential/mixed-use Mill at Broadway development is

bounded by Broadway on the north, 5th Street on the east, McClatchy Way on the south, and an elevated section of I-5 on the west.

Subsequent to passage of the U.S. Housing Act of 1937, which established a permanent low-rent public housing program between the federal government and local communities, the Alder Grove Housing Complex was completed in 1942 with funds from the U.S. Housing Authority (now the Department of Housing and Urban Development, or HUD). Located within the Specific Plan Area south of Broadway, west of Muir Way (then 9th Street), and east of 5th Street, and named "New Helvetia Homes," it was the City Housing Authority's (now the Sacramento Housing and Redevelopment Agency, SHRA) first major public housing project, and featured elements common to other federally-sponsored public housing projects throughout the country between 1933 and 1949. The housing complex was listed in 2014 on the NRHP and CRHR as the New Helvetia Historic District.

A second low-income housing community, Marina Vista, was completed in 1953. Located in the southern arm of the current Specific Plan Area east of I-5, the 38-acre complex is bounded on the north by McClatchy Way, on the east by 5th Street, and on the south by River Bend Circle. The community includes 382 multifamily units, with a design similar to Alder Grove in that the buildings are utilitarian and rectilinear.

Two schools that are part of the Sacramento City Unified School District (SCUSD) are located within the Specific Plan Area immediately north of the Marina Vista housing community. In 2012, Jedediah Smith Elementary at 401 McClatchy Way was renamed Leataata Floyd Elementary School to honor an influential member of the local community. The elementary school was constructed in 1952 to serve the Alder Grove and Marina Vista public housing communities. East of the elementary school, the campus of the Arthur A. Benjamin Health Professions High School at 451 McClatchy Way was completed in 2006.

Sacramento's waterfront began changing during the 1950s. The increased reliance on automotive transport made travel by water obsolete and, with declining revenues, commercial docks gradually fell into disrepair and were dismantled. Along with the box factories, lumber yards, and millworks established in the mid-1800s in proximity to the riverfront wharves and railroads, by the early 1900s, tankers were transferring fuel oil into tank farms near private company docks on the riverfront at Broadway. In the northwest corner of the Specific Plan Area, west of I-5 and north of the Sacramento Marina/Miller Park, two tank farms continue to store and distribute petroleum products: the Chevron Bulk Terminal located on the north side of Broadway between the rail line and Front Street; and the Conoco Phillips above-ground storage tanks (ASTs) located south of Broadway on both sides of the railroad line. By the 1980s, the river warehouses and wharves were all gone.

By 1955, the City's continued growth required re-examination of its existing parks and recreation system, and over the next decade several improvements were made, along with a number of new parks. In 1956, the Sacramento Boat Harbor was begun at Fredrick Miller Regional Park. Most of the land comprising today's combined Sacramento Marina/Miller Park had been donated to the City in 1942. Approximately 40 acres, the Sacramento Marina/Miller Park is located within the Specific Plan Area west of I-5. Combined, the facilities are an important recreational asset for the region's boaters and boating public. The City's only public marina, and the largest on the Sacramento River, the Sacramento Marina was renovated in 2008 and currently features 475 boat slips.

Broadway was among the commercial corridors, such as Stockton Boulevard, Franklin Boulevard, Freeport Boulevard, Del Paso Boulevard, and Fair Oaks Boulevard, linking the City to the surrounding region. With the increase in the number of automobiles following World War II, planning began for a freeway system for the area. The Elvas Freeway, which later became State Route 51, Business 80 and

the Capital City Freeway (aka W-X Freeway), was constructed between 1950 and 1955. It was the first freeway built north of Sacramento's central grid streets, and was widened from four to six lanes in 1965. The South Sacramento Freeway (U.S. 50/99) was opened in 1961 and in the late 1960s/early 1970s, I-5 and Business 80 were completed. With the completion of the freeway system encircling the central portion of the City, landmarks such as the Tower Bridge no longer functioned as a main western entry (NIC 2019).

RECORDS SEARCHES, SURVEYS, AND CONSULTATION

On May 7, 2018, a CHRIS records search of the Specific Plan Area was conducted at the North Central Information Center, at California State University, Sacramento. The records search was conducted to determine if prehistoric or historic cultural resources were previously recorded within the Specific Plan Area, the extent to which the Specific Plan Area had been previously surveyed, and the number and type of cultural resources within a 0.25-mile radius of the Specific Plan Area.

The following information was reviewed as part of the records search:

- NRHP and CRHR,
- Historic Property Data Files,
- California Inventory or Historic Resources,
- California State Historical Landmarks,
- California Points of Historical Interest, and
- Historic reference maps.

In addition to the material accessed at NCIC, a variety of documents and background reports prepared by or for the City of Sacramento and the SHRA, the NRHP Registration Form for the New Helvetia Historic District, and Sacramento Register listings were reviewed.

Archaeological Survey

A pedestrian survey within the approximately 292.5-acre Specific Plan Area was conducted on May 24 and 25, 2018. The survey was constrained by existing hardscape, buildings, and ongoing construction within this urban setting. Within the non-built, accessible portions of the Specific Plan Area, intensive-level survey transects performed to identify archaeological resources were spaced apart at intervals no greater than 15 meters.

During the pedestrian survey, all visible ground surface on public land within the Specific Plan Area was carefully examined for archaeological material (e.g., flaked stone tools, tool-making debris, stone milling tools, or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes, foundations), or historic-era debris (e.g., metal, glass, ceramics). Ground disturbances (e.g., dirt roads, animal burrows, etc.) were visually inspected.

No prehistoric or historic-era archaeological sites or ethnographic sites were newly identified during the survey of the Specific Plan Area. However, the Specific Plan Area has a high sensitivity for discovery of prehistoric and historic-era riverfront and near-riverfront archaeological sites (NIC 2019).

Historic Resources within the Specific Plan Area

A total of 23 historic or potentially historic resources were identified within the Specific Plan Area (Table 4.4-1). Of these, four had been previously recorded and assigned numbers by the NCIC (P-34-01497 [CA-SAC-505H], P-34-00619 [CA-SAC-1092H], P-34-03382, and P-34-04473). Two properties within the Specific Plan Area had been previously documented and evaluated (Alder Grove Housing Complex and Setzer Box Factory) but were not on file at the NCIC, and 17 properties over 45 years of age were newly recorded as a result of the reconnaissance-level survey for historic-era built environment resources (NIC 2019).

As further described in Table 4.4-1, below, of the 23 identified cultural resources, one is listed on both the NRHP and CRHC, two are listed on the CRHR and are eligible for NRHP listing, three were previously found ineligible for listing on the NRHP, CRHR, or Sacramento Register (SR) Additionally, 17 of the structures listed in Table 4.4-1 have been preliminary documented as having been built between 1925 and 1970. Four additional properties (listed at the end of Table 4.4-1) have been noted, but not recorded, as having been built or modified in the last 30 years. These properties may require evaluation in the future and as implementation of the WBSP proceeds.

Table 4.4-1 Cultural Resources within Specific Plan Area

Resource	Year Built	NRHP/CRHR/SR Status
Railroad Grade (P-34-0619)	1909	Contributing element to P-34-01497
Walnut Grove Branch Line of Southern Pacific Railroad (P-34-01497)	1909	Eligible NRHP; listed CRHR; Criteria A/1 and C/3
Sacramento Farmers Market (P-34-03382)	1933-1968	Not eligible
Isolated ship/barge remnant (P-34-04473)	unknown	Not eligible
KXTV Broadcast Studio (400 Broadway)	1967, modified in 1990	Unevaluated
Saldivar Auto Body Shop (500 Broadway)	1930	Unevaluated
Ben & Sons Auto-Tech (524 Broadway)	1944	Unevaluated
New Helvetia Historic District (Alder Grove Housing Complex) (816 Revere Street)	1942 contributing (1960s noncontributing)	Listed NRHP and CRHR; Criteria A/1, B/2 and C/3
SCUSD Facility Operations Center (425 1st Avenue)	ca. 1947	Unevaluated
Setzer Box Factory (2570 3rd Street)	1927-1988	Not eligible
SCUSD Business Operations Center (2535 5th Street)	1925, modified in the 1940s and 1990s	Unevaluated
California Shellfish Company (2601 5th Street)	1964 and 1974	Unevaluated
Saccani Distributing Company (2600 5th Street)	1950	Unevaluated
5th Street Restaurant and Bar Supply (2625 5th Street)	1967	Unevaluated
Pacific Pallet Exchange (2681 5th Street)	1964	Unevaluated
Lincoln Welding and Machine (2649 5th Street)	1964	Unevaluated
Industrial Warehouses (600 1st Avenue)	Early 1940s	Unevaluated
A-1 Towing (601 1st Avenue)	1947, modified in 1960	Unevaluated
Sienna Auto Sales (519 1st Avenue)	1954, modified in 1984	Unevaluated
Phillips 66 Sacramento Terminal (76 Broadway)	1955, ASTs ca. 1940s and modified ca. 1966	Unevaluated
Chevron Petroleum Tank Farm (2420 Front Street)	ca. 1940s, modified ca. 1966	Unevaluated

Resource	Year Built	NRHP/CRHR/SR Status
Marina Vista Housing Complex (240 Seavey Circle)	1953, renovated in 1994	Unevaluated
Leataata Floyd Elementary School (401 McClatchy Way)	1952, modified in 2010	Unevaluated
Pacific Standard Print (2629 5th Street)	1970	Unevaluated
Canvas Experts and Valet Boat Storage (2701 5th Street)	1991	Unevaluated
Light Industrial (multiple tenants) (2703 5th Street)	1991	Unevaluated
Arthur A. Benjamin Professions High School (451 McClatchy Way)	2006	Unevaluated

Source: NIC 2019

Walnut Grove Branch Line grade (P-34-0619)
This historic-era archaeological resource is an abandoned railroad grade that is composed of 19th and 20th century dump fill. The 300-foot long railroad grade was once a spur from the Walnut Grove Branch Line of the Southern Pacific Railroad. According to the site record completed in 2001, the resource is a contributing element to the NRHP-eligible and CRHR-listed Walnut Grove Branch Line of the Southern Pacific Railroad (see description of P-34-01497 below) (NIC 2019).

Walnut Grove Branch Line of Southern Pacific Railroad (P-34-1497)
The Walnut Grove Branch Line of the Southern Pacific Railroad and various features of the railroad have been recorded multiple times between 2006 and 2011. Within the Specific Plan Area, a 75-foot long segment of the track was recorded in 2011 on top of the levee. Freight service along the line was terminated in1978. The railroad was determined eligible for NRHP listing by consensus through the Section 106 process, and is listed in the CRHR (status code 2S2). It is significant at a local level under Criterion A/1 for its direct influence on the development of agriculture, canning operations, and packing endeavors in the Delta, as well as for its role in the founding of Locke, a NRHP- and CRHR-listed town; as well as being a National Historic Landmark. Under Criterion C/3, the construction and placement of the line atop an elevated levee embodies distinctive characteristics of the methods employed at the turn of the 20th century in dredging and levee construction (NIC 2019).

Alder Grove Housing Complex (New Helvetia Historic District)
The 26-acre Alder Grove Housing Complex is located on the south side of Broadway between Muir Way and 5th Street. The complex was completed in 1942 with funds from the U.S. Housing Authority and named “New Helvetia Homes.”

The Alder Grove Housing Complex was listed on the NRHP and CRHR in 2014 as the New Helvetia Historic District. The historic district is significant at the local level under Criterion A/1 as an important local attempt to improve the housing conditions of African Americans (1942-1949), under Criterion B/2 for its association with efforts of Nathaniel Colley, the first African American attorney in Sacramento who fought to end discrimination at New Helvetia (1951-1952), and under Criterion C/3 for embodying distinctive characteristics of the International Style and its design by a coalition of Sacramento's Master Architects (Charles Dean, Leonard Starks, Ed Flanders, and Harry Devine, Sr). The NRHP nomination form lists 62 buildings and landscape features (open spacing, garden-line landscaping) as contributing elements to the historic district (NIC 2019).

Tribal Cultural Resources

Sacred Lands File Outreach
The NAHC was contacted to request a search of their Sacred Lands File for traditional cultural resources within or near the Specific Plan Area. The reply from the NAHC, dated May 11, 2018, states

that sacred sites were identified in the Specific Plan Area, and to directly contact the Ione Band of Miwok Indians and the United Auburn Indian Community for more information about sacred sites and tribal cultural resources within the Specific Plan Area.

Native American Consultation

During project planning, a Native American contact program was initiated pursuant to California Assembly Bill 52. The following tribes and tribal representatives that were contacted are listed below:

- Buena Vista Rancheria, Rhonda Morningstar Pope, Chairperson;
- Colfax-Todds Valley Consolidated Tribe, Pamela Cubbler, Treasurer;
- Ione Band of Miwok Indians, Crystal Martinez-Alire, Chairperson;
- Ione Band of Miwok Indians, Randy Yonemura, Cultural Committee Chair;
- Nashville-El Dorado Miwok, Cosme Valdez, Chairperson;
- Shingle Springs Band of Miwok Indians, Regina Cuella, Chairperson;
- T-si Akim Maidu, Grayson Coney, Cultural Director;
- T-si Akim Maidu, Don Ryberg, Chairperson;
- United Auburn Indian Community of the Auburn Rancheria (UAIC), Gene Whitehouse, Chairperson; and
- Wilton Rancheria, Raymond Hitchcock, Chairperson.

Upon request, the City initiated Native American consultation with the United Auburn Indian Community of the Auburn Rancheria (UAIC), the Shingle Springs Band of Miwok Indians, and Wilton Rancheria. A consultation meeting with Tribal representatives of Wilton Rancheria was conducted on June 11, 2019. Additionally, a field visit with UAIC was conducted on June 20, 2019. Through consultation, two areas within the WBSP were identified as containing tribal cultural resources: the Alder Grove subarea and Marina/Miller Regional Park Special Study Area.

While other federally-recognized Tribes may claim the Specific Plan Area as part of their ancestral territory, no other Tribes have requested formal consultation or additional information.

4.4.3 Impacts and Mitigation Measures

METHODOLOGY

This analysis identifies the potential impacts of implementation of the WBSP on historical, archaeological, and tribal cultural resources within the Specific Plan Area. The impact analysis considers the known historical, archaeological, and tribal cultural resource environmental setting in the plan area, as well as the potential for previously undocumented resources, including human remains, and physical effects (i.e., disturbance, material alteration, demolition) to known and previously undocumented cultural resources that could result from implementation of the WBSP. The analysis is also informed by the provisions and requirements of federal, state, and local laws and regulations that apply to cultural resources.

For purposes of discussion throughout the following impacts and mitigation measures, the term “historic resources” describes extant buildings and structures as well as subsurface historic-era features (such as wells, privies, or foundations).

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the State CEQA Guidelines, the WBSP would result in a significant impact on cultural resources if it would:

- cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically; or
- disturb any human remains, including those interred outside of dedicated cemeteries.

ISSUES NOT DISCUSSED FURTHER

All potential archaeological, historical, and tribal cultural resources issues identified in the significance criteria are evaluated below.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.4-1: Impacts to Significant Historical Resources

Implementation of the WBSP could result in new development and redevelopment of existing uses in the Specific Plan Area, which could result in a physical change, damage to, or destruction of a historic building or structure, thereby resulting in a substantial adverse change in the significance of a historical resource as defined in Section 15064.5. This would be a **potentially significant** impact.

As noted above, historical (or architectural) resources include standing buildings (e.g., houses, barns, cabins) and intact structures (e.g., dams, bridges). Over the years, historical resources within the Specific Plan Area have been identified through historic building surveys and cultural resource studies. These surveys and studies have led to the identification of the Walnut Grove Branch Line Railroad Grade (P-34-00619), the Walnut Grove Branch Line of the southern Pacific Railroad (P-34-01497), and the New Helvetia Historic District as determined either eligible for or listed in the CRHR and/or NRHP. These resources meet the definition of historical resources under Section 15064.5(a) of the CEQA Guidelines. The demolition, alteration, or disturbance of existing features, buildings, and structures associated with WBSP implementation could result in changes to or destruction of historical resources.

The WBSP assumes new development, redevelopment, and improvements, consistent with the WBSP within the Specific Plan Area to support mixed-use development, residential growth and public-use improvements (i.e., recreation access, road improvements, and public facilities). Subsequent projects resulting from the WBSP would be located in areas with known historical sites, or in areas where structures have not yet been evaluated for historical significance. Buildings listed in Table 4.4-1 that have been constructed between 1925 and 1970 will likely require future evaluations to determine

eligibility for CRHR and/or NRHP listing. Therefore, there is a potential that some of these buildings could be historically significant.

Because subsequent projects of the WBSP would be located in areas where listed, eligible, or not-yet-evaluated historical resources would be located, there is potential that such resources could be physically altered, damaged, or destroyed through project-level construction activities. For instance, if the Alder Grove or Marina Vista properties are redeveloped, demolition of buildings could result in significant effects to historical resources. For example, the realignment of Muir Way to 8th Street (north of Broadway) would likely result in the removal of existing structures within Alder Grove. Damage to or destruction of a building or structure that is a designated historical resource, eligible for listing as a historical resource, or a potential historical resource that has not yet been evaluated, could result in the change in its historical significance. Therefore, the impact to historical resources would be **potentially significant**.

Mitigation Measures

Mitigation Measure 4.4-1: Conduct Project-Specific Level Surveys and Identify and Implement Measures to Protect Identified Historic Resources

Before altering or otherwise affecting a building or structure 50 years old or older, the applicant shall retain a qualified architectural historian to record it on a California Department of Parks and Recreation DPR 523 form or equivalent documentation, if the building has not previously been evaluated. Its significance shall be assessed by a qualified architectural historian, using the significance criteria set forth for historical resources under CEQA Guidelines Section 15064.5. The evaluation process shall include the development of appropriate historical background research as context for the assessment of the significance of the structure in the City and the region. For buildings or structures that do not meet the CEQA criteria for historical resource (Section 15064.5 of the State CEQA Guidelines), no further mitigation is required.

For a building, structure, or district that qualifies as or has already been designated as a historical resource, the architectural historian and the City shall consult to consider measures that would enable the project to avoid direct or indirect impacts to the building, structure, or district. These could include preserving a building on the margin of the project site, using it “as is,” or other measures that would not alter the building or substantially affect the overall integrity of the historical resource. If the project cannot avoid modifications to a historic building or structure, the City shall require the following measures to be implemented to the extent feasible:

1) If the building or structure can be preserved on site, but remodeling, renovation or other alterations are required, this work shall be conducted in compliance with the Secretary of the Interior’s Standards for the Treatment of Historic Properties

2) If a significant historic building or structure is proposed for major alteration or renovation, or to be moved and/or demolished, the City shall ensure that a qualified architectural historian thoroughly documents the building and associated landscaping and setting. Documentation shall include still and video photography and a written documentary record/history of the building to the standards of the Historic American Building Survey or Historic American Engineering Record, including accurate scaled mapping, architectural descriptions, and scaled architectural plans, if available. The record shall be prepared in consultation with State Historic Preservation Officer and filed with the Office of Historic Preservation. The record shall be accompanied by a report containing site-specific history and appropriate contextual information. This information shall be gathered through site specific and comparative archival research, and oral history collection as appropriate.

3) If preservation and reuse at the site are not feasible, the historical building shall be documented as described in item (2) and, when physically and financially feasible, be moved and preserved or reused in a manner consistent with the Secretary of the Interior Standards for the Treatment of Historic Properties.

Significance after Mitigation

Implementation of Mitigation Measures 4.4-1 would reduce potentially significant impacts to historical resources because actions would be taken to record, evaluate, avoid, or otherwise treat the resource appropriately, in accordance with pertinent laws and regulations. However, CEQA Guidelines [CCR 15126.4(b)(2)] note that in some circumstances, documentation of an historical resource will not mitigate the effects of demolition of that resource to a less-than-significant level because the historical resources would no longer exist. If buildings that are listed on the NRHP, CRHR, or SR are altered or demolished, these resources would be unavoidably impacted. Therefore, because the potential for permanent loss of a historical resource or its integrity cannot be precluded, impacts would remain **significant and unavoidable**.

Scenario B Option

If selected, implementation of the Scenario B option would retain a greater area of the existing Marina and would subsequently result in reduced development within Miller Regional Park. Because this option would involve reduced development within the Specific Plan Area, fewer construction activities would occur. As previously described, there are several listed or eligible historical resources, in addition to other buildings and structures that may become listed or eligible at a later time. Because subsequent projects under the WBSP, as part of this option, would be located in areas where listed, eligible, or not-yet-evaluated historical resources would be located, there is potential that such resources could be damaged or destroyed through project-level construction activities. Therefore, implementation of Scenario B would result in similar impacts to the proposed WBSP and would necessitate implementation of Measure 4.4-1. Event with implementation of this mitigation, impacts would remain **significant and unavoidable**, similar to the proposed project.

Impact 4.4-2: Impacts to Significant Archaeological Resources

Future development under the WBSP could include properties that contain known or yet unknown archaeological resources. Therefore, ground-disturbing activities resulting from subsequent projects under the WBSP could result in discovery or damage of yet undiscovered archaeological resources as defined in CEQA Guidelines Section 15064.5. This would be a **potentially significant** impact.

As described in “Environmental Setting,” field surveys of the Specific Plan Area did not identify any new prehistoric or historic-era archaeological sites or ethnographic sites. However, it was noted that the Specific Plan Area has a high sensitivity for discovery of prehistoric and historic-era archaeological sites, specifically on or near the riverfront. Potential impacts to unknown materials, features, or deposits may occur as a result of future project-level development, such as the construction of new residential housing, public facilities, or transportation improvements within the Specific Plan Area. Though the WBSP proposes the majority of new development and redevelopment projects in the eastern portion of the Specific Plan Area (i.e., Mill at Broadway, Industrial, Marina Vista, and Alder Grove subareas), construction and earth-moving activity would still occur near the Sacramento River, in the Miller Regional Park and West Broadway Gateway and Corridor subareas.

Future developments, renovations, or improvements in areas of high archaeological sensitivity could encounter previously undiscovered or unrecorded archaeological sites, materials, or features. Further, ground-disturbance associated with construction activities at individual project sites could damage or destroy previously undiscovered archaeological resources, which would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 4.4-2: Response Measures for Potential Unknown Archaeological Resources

Mitigation Measure 4.4-2 is intended for individual projects implemented under the WBSP. Where ground disturbing activities occur in native soils, or there is no evidence of extensive past ground disturbances, a qualified archaeologist meeting the United States Secretary of Interior guidelines for professional archaeologists will monitor ground- disturbing activities. If evidence of any historic-era subsurface archaeological features or deposits are discovered during construction-related earth-moving activities (e.g., ceramic shard, trash scatters), all ground-disturbing activity in the area of the discovery shall be halted until a qualified archaeologist can access the significance of the find. If after evaluation, a resource is considered significant, all preservation options shall be considered as required by CEQA, including possible data recovery, mapping, capping, or avoidance of the resource. If artifacts are recovered from significant historic archaeological resources, they shall be housed at a qualified curation facility. The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and distributes this information to the public.

Significance after Mitigation

Implementation of Mitigation Measure 4.4-2 would reduce impacts to unknown archaeological resources to a **less-than-significant** level by requiring construction monitoring and, in the case of a discovery, preservation options (including data recovery, mapping, capping, or avoidance) and proper curation if significant artifacts are recovered.

Scenario B Option

If selected, implementation of the Scenario B option (in addition to implementation of WBSP) would retain a greater area of the existing Marina and would subsequently result in reduced development within Miller Regional Park. Because this option would involve reduced development within Specific Plan Area, less ground disturbance and earth-moving activities would occur. As a result, there would be reduced potential to encounter previously undiscovered archaeological resources. However, because the Scenario B Option would still involve some earth-moving activities, the potential to encounter previously undiscovered archaeological resources would remain. With implementation of Mitigation Measure 4.4-2, impacts would be reduced to **less-than-significant** levels, similar to the proposed project.

Impact 4.4-3: Impacts to Tribal Cultural Resources

Consultation with UAIC and Wilton Rancheria has revealed that the Specific Plan Area is considered culturally sensitive. Therefore, it is possible that known or yet undiscovered tribal cultural resources could be encountered or damaged through implementation of subsequent projects under the WBSP. This would result in a **potentially significant** impact.

Evidence of prehistoric occupation of the Sacramento region dates back several thousand years. As previously described, cultural deposits of most early or long-term occupation sites in the region are marked by cultural layers alternating with flood-deposited silts.

The NAHC Sacred Lands File search identified that sacred sites have been identified in the Specific Plan Area. The NAHC letter recommended contacting the Ione Band of Miwok Indians and the United Auburn Indian Community for more information about sacred sites and tribal cultural resources within the Specific Plan Area. As detailed above, the City has consulted with UAIC and Wilton Rancheria pursuant to AB 52.

Subsequent projects resulting from implementation of the WBSP may be required to prepare site-specific project-level analysis to fulfill CEQA requirements, which may include additional AB 52 consultation that could lead to the identification of tribal cultural resources. Because cultural sensitivity areas have been identified in the Specific Plan Area (Alder Grove subarea and Marina/Miller Regional Park Special Study area), it is possible that tribal cultural resources could be encountered during analysis and/or development of subsequent projects. California law recognizes the need to protect tribal cultural resources from inadvertent destruction and the procedures required for the treatment of tribal cultural resources, which are contained in PRC Section 21080.3.2 and Section 21084.3 (a).

However, because there is potential for project-specific construction activities to result in the discovery and/or damage of known or unknown tribal cultural sites, materials, or features, this impact is considered **potentially significant**.

Mitigation Measures

Mitigation Measure 4.4-3a: Implement a Cultural Resources and Tribal Cultural Resources Sensitivity and Awareness Training Program Prior to Ground-Disturbing Activities

The City shall require the applicant/contractor to provide a cultural resources and tribal cultural resources sensitivity and awareness training program (Worker Environmental Awareness Program [WEAP]) for all personnel involved in project construction, including field consultants and construction workers. The WEAP will be developed in coordination with an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology, as well as culturally affiliated Native American tribes. The City may invite Native American representatives from interested culturally affiliated Native American tribes to participate. The WEAP shall be conducted before any project-related construction activities begin at the project site. The WEAP will include relevant information regarding sensitive cultural resources and tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations.

The WEAP will also describe appropriate avoidance and impact minimization measures for cultural resources and tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential cultural resources or tribal cultural resources are encountered. The WEAP will emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance to Native Americans and will discuss appropriate behaviors and responsive actions, consistent with Native American tribal values.

Mitigation Measure 4.4-3b: In the Event that Cultural Resources or Tribal Cultural Resources Are Discovered During Construction, Implement Avoidance and Minimization Measures to Avoid Significant Impacts and Procedures to Evaluate Resources

If cultural resources or tribal cultural resources (such as structural features, unusual amounts of bone or shell, artifacts, or human remains) are encountered at the project site during construction, work shall be suspended within 100 feet of the find (based on the apparent distribution of cultural materials), and the construction contractor shall immediately notify the project's City representative. Avoidance and preservation in place is the preferred manner of mitigating impacts to cultural resources and tribal cultural resources. This will be accomplished, if feasible, by several alternative means, including:

- Planning construction to avoid tribal cultural resources, archaeological sites and/or other cultural resources; incorporating cultural resources within parks, green-space or other open space; covering archaeological resources; deeding a cultural resource to a permanent conservation easement; or other preservation and protection methods agreeable to consulting parties and regulatory authorities with jurisdiction over the activity.

- Recommendations for avoidance of cultural resources and tribal cultural resources will be reviewed by the City representative, interested culturally affiliated Native American tribes and other appropriate agencies, in light of factors such as costs, logistics, feasibility, design, technology and social, cultural and environmental considerations, and the extent to which avoidance is consistent with project objectives. Avoidance and design alternatives may include realignment within the project site to avoid cultural resources or tribal cultural resources, modification of the design to eliminate or reduce impacts to cultural resources or tribal cultural resources or modification or realignment to avoid highly significant features within a cultural resource or tribal cultural resource.
- Native American representatives from interested culturally affiliated Native American tribes will be invited to review and comment on these analyses and shall have the opportunity to meet with the City representative and its representatives who have technical expertise to identify and recommend feasible avoidance and design alternatives, so that appropriate and feasible avoidance and design alternatives can be identified.
- If the discovered cultural resource or tribal cultural resource can be avoided, the construction contractor(s), will install protective fencing outside the site boundary, including a 100-foot buffer area, before construction restarts. The boundary of a cultural resource or a tribal cultural resource will be determined in consultation with interested culturally affiliated Native American tribes and tribes will be invited to monitor the installation of fencing. Use of temporary and permanent forms of protective fencing will be determined in consultation with Native American representatives from interested culturally affiliated Native American tribes.
- The construction contractor(s) will maintain the protective fencing throughout construction to avoid the site during all remaining phases of construction. The area will be demarcated as an “Environmentally Sensitive Area”.

If a cultural resource or a tribal cultural resource cannot be avoided, the following performance standard shall be met prior to continuance of construction and associated activities that may result in damage to or destruction of cultural resources or tribal cultural resources:

- Each resource will be evaluated for California Register of Historical Resources (CRHR) eligibility through application of established eligibility criteria (California Code of Regulations 15064.636), in consultation with consulting Native American Tribes, as applicable.

If a cultural resource or a tribal cultural resource is determined to be eligible for listing in the CRHR, the City will avoid damaging effects to the resource in accordance with California PRC Section 21084.3, if feasible. The City shall coordinate the investigation of the find with a qualified archaeologist (meeting the Secretary of the Interior’s Professional Qualifications Standards for Archeology) approved by the City and with interested culturally affiliated Native American tribes that respond to the City’s invitation. As part of the site investigation and resource assessment, the City and the archaeologist shall consult with interested culturally affiliated Native American tribes to assess the significance of the find, make recommendations for further evaluation and treatment as necessary and provide proper management recommendations should potential impacts to the resources be determined by the City to be significant. A written report detailing the site assessment, coordination activities, and management recommendations shall be provided to the City representative by the qualified archaeologist. These recommendations will be documented in the project record. For any recommendations made by interested culturally affiliated Native American tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record.

Native American representatives from interested culturally affiliated Native American Tribes and the City representative will also consult to develop measures for long-term management of any discovered tribal cultural resources. Consultation will be limited to actions consistent with the jurisdiction of the City and taking into account ownership of the subject property. To the extent that the City has jurisdiction, routine operation and maintenance within tribal cultural resources retaining tribal cultural integrity shall be consistent with the avoidance and minimization standards identified in this mitigation measure.
If the City determines that the project may cause a significant impact to a tribal cultural resource, and measures are not otherwise identified in the consultation process, the following are examples of mitigation capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to the resource. These measures may be considered to avoid or minimize significant adverse impacts and constitute the standard by which an impact conclusion of less-than significant may be reached:

- Avoid and preserve resources in place, including, but not limited to, planning construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- Treat the resource with culturally appropriate dignity taking into account the Tribal cultural values and meaning of the resource, including, but not limited to, the following:
  - Protect the cultural character and integrity of the resource.
  - Protect the traditional use of the resource.
  - Protect the confidentiality of the resource.
  - Establish permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places.
  - Protect the resource.

Significance after Mitigation

Implementation of Mitigation Measures 4.4-3a and 4.4-3b would reduce impacts to tribal cultural resources to a **less-than-significant** level by requiring pre-construction worker Tribal Cultural Resources Awareness Training and, in the case of a discovery, appropriate treatment (including options for data recovery, mapping, capping, or avoidance) and proper care of significant tribal cultural resources.

Scenario B Option

If selected, implementation of the Scenario B option (in addition to implementation of WBSP) would retain a greater area of the existing Marina and would subsequently result in reduced development within Miller Regional Park. Because this option would involve reduced development within Specific Plan Area, less ground disturbance and earth-moving activities would occur. As a result, there would be reduced potential to encounter previously undiscovered tribal cultural resources. However, because the Scenario B Option would still involve some earth-moving activities, the potential to encounter previously undiscovered tribal cultural resources would remain. With implementation of Mitigation Measures 4.4-3a and 4.4-3b, impacts would be reduced to **less-than-significant** levels, similar to the proposed project.

Impact 4.4-4: Discovery of Human Remains

Though there are identified sacred sites within the Specific Plan Area, no known past cemeteries are present. Earth-moving activities associated with subsequent projects implemented under the WBSP could disturb or destroy previously undiscovered human remain or burials. This impact is considered **potentially significant**.

As identified in Impact 4.4-2 and 4.13-3, overall, the Specific Plan Area is considered to have a high sensitivity potential for the existence of intact archaeological deposits. This assessment would also apply to the potential presence of human remains, whether associated with historic, or pre-historic occupation. There are no known past cemeteries or burials in the Specific Plan Area boundaries. However, because earthmoving activities associated with project-level construction under the WBSP would occur, there is potential to encounter buried human remains or unknown cemeteries in areas with little or no previous disturbance. Therefore, this impact is considered **potentially significant**.

Mitigation Measures

Mitigation Measure 4.4-4: Response Protocol in Case Human Remains are Uncovered

Consistent with the California Health and Safety Code and the California Native American Historical, Cultural, and Sacred Sites Act, if suspected human remains are found during future project-level construction, all work shall be halted in the immediate area and place an exclusion zone (lath and flagging) around the burial. The Principal Investigator will notify the City of Sacramento Police Department, who will in turn notify the county coroner to determine the nature of the remains. The coroner shall examine all discoveries of suspected human remains within 48 hours of receiving notice of a discovery on private or State lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she shall contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The NAHC shall then assign an MLD to serve as the main point of Native American contact and consultation. Following the coroner's findings, the MLD, in consultation with the City, shall determine the ultimate treatment and disposition of the remains.

Significance after Mitigation

Implementation of Mitigation Measure 4.4-4 would reduce potential impacts to a **less-than-significant** level by requiring work to stop if suspected human remains are found, communication with the county coroner, and the proper identification and treatment of the remains consistent with the California Health and Safety Code and the California Native American Historical, Cultural, and Sacred Sites Act.

Scenario B Option

If selected, implementation of the Scenario B option (in addition to implementation of WBSP) would retain a greater area of the existing Marina and would subsequently result in reduced development within Miller Regional Park. Because this option would involve reduced development within Specific Plan Area, less ground disturbance and earth-moving activities would occur. As a result, there would be reduced potential to encounter previously undiscovered human remains or burials. However, because the Scenario B option would still involve some earth-moving activities, the potential to encounter previously undiscovered human remains or burials would remain. Implementation of Mitigation Measure 4.4-4 would reduce impacts to **less-than-significant** levels, similar to the proposed project.

CUMULATIVE IMPACTS

Impact 4.4-5: Potential for the Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Cultural Resources

Implementation of the WBSP, in combination with other cumulative development in the area, could result in impacts to cultural and tribal cultural resources in the area. However, through the implementation of plan-specific mitigation measures, the contribution of the WBSP would be cumulatively considerable with respect to archaeological and tribal cultural resources and human remains. However, the potential remains for a potential or designated historic resource (i.e., building or structure) to be lost with implementation of the WBSP, and as a result, the WBSP's contribution would remain cumulative considerable. Impacts would be **significant**.

The cumulative context for the cultural resources analysis considers a broad regional system of which the resources are a part. The cumulative context for historical resources is the City of Sacramento and the Sacramento Valley where common patterns of historic-era settlement have occurred over roughly the past two centuries. The cumulative context for archaeological resources, human remains, and tribal cultural resources is the former territory of the Nisenan and Plains Miwok (also Mi-wuk).

Because all significant cultural resources are unique and nonrenewable members of finite classes, meaning there are a limited number of significant cultural resources, all adverse effects erode a dwindling resource base. The loss of any one archaeological site could affect the scientific value of others in a region because these resources are best understood in the context of the entirety of the cultural system of which they are a part. The cultural system is represented archaeologically by the total inventory of all sites and other cultural remains in the region. As a result, a meaningful approach to preserving and managing cultural resources must focus on the likely distribution of cultural resources, rather than on a single project or parcel boundary.

Proper planning and appropriate mitigation can help to capture and preserve knowledge of such resources and can provide opportunities for increasing our understanding of the past environmental conditions and cultures by recording data about sites discovered and preserving artifacts found. Federal, state, and local laws are also in place that protect these resources in most instances. Even so, it is not always feasible to protect these resources, particularly when preservation in place would make projects infeasible, and for this reason the cumulative effects of past and present projects in the City of Sacramento could result in a potentially significant cumulative impact on cultural resources.

Although there are various laws and regulations directed at the protection of historic structures, significant historic structures have been, and will continue to be damaged or removed over time. Even with implementation of Mitigation Measure 4.4-1 and compliance with existing policies and regulations, the WBSP, and presumably some reasonably foreseeable future projects, would contribute to an ongoing significant cumulative loss and degradation of historic resources. Therefore, because implementation of the WBSP could result in an adverse change to identified historic resources, plan implementation would be considered cumulatively considerable with respect to the potential cumulative loss and degradation of historic structures in the area.

With implementation of Mitigation Measures 4.4-2 adverse effects to currently known archeological resources and potentially newly discovered archeological resources would be avoided or mitigated. Therefore, implementation of the WBSP and subsequent individual projects would not contribute to a cumulative loss of archaeological resources. In addition, implementation of Mitigation Measures 4.4-3a, and 4.4-3b, in combination with compliance with California Health and Safety Code Sections 7050.5

and 7052 and California Public Resources Code (PRC) Section 5097, as well as PRC Section 21080.3.2 and Section 21084.3(a), would ensure that the proper treatment and disposition of cultural and tribal cultural resources, including human remains occurs. Thus, the project's contribution to cumulative impacts to human remains would not be cumulatively considerable. Because the WBSP's contribution to the potential cumulative impact on historic structures in the area would be considered cumulatively considerable, cumulative impacts would be considered significant.

Mitigation Measures

No additional feasible mitigation is available to reduce the project's contribution to less than cumulatively considerable.

Significance after Mitigation

As noted above, CEQA Guidelines [CCR 15126.4(b)(2)] note that in some circumstances, documentation of an historical resource will not mitigate the effects of demolition of that resource to a less-than-significant level because the historic resources would no longer exist. As a result, in the event that redevelopment within the Specific Plan Area requires the substantial modification or demolition of a historical resource, no additional feasible mitigation is available to reduce the WBSP's contribution to less than cumulative considerable. Impacts would remain **significant and unavoidable**.

4.5 ENERGY

This section was prepared pursuant to CEQA Guidelines Section 15126 and Appendix F of the CEQA guidelines, which require that EIRs include a discussion of the potential energy impacts of projects. The analysis considers whether implementation of the West Broadway Specific Plan (WBSP) would result in the inefficient, wasteful, and unnecessary consumption of energy. Energy related to land use is primarily associated with direct energy consumption for space heating and on-site electricity/heating/cooling facilities at residential and commercial uses, industrial plant energy consumption, and indirect energy consumed in generation of electricity at power plants. Transportation energy use is related to the efficiency of cars, trucks, and public transportation; choice of travel modes (e.g., automobile, carpool, vanpool, and transit); and miles traveled by these modes. Energy is also consumed with construction and routine operation and maintenance of land uses.

In response to the Notice of Preparation for the EIR, several energy-related comments were received including requests for the EIR consider impacts related to energy efficiency.

4.5.1 Regulatory Setting

Energy conservation is embodied in many federal, state, and local statutes and policies. At the federal level, energy standards apply to numerous products (e.g., the U.S. Environmental Protection Agency's [EPA] EnergyStar™ program) and transportation (e.g., fuel efficiency standards). At the state level, Title 24 of the California Code of Regulations sets forth energy standards for buildings. Further, the State provides rebates/tax credits for installation of renewable energy systems, and offers the Flex Your Power program promotes conservation in multiple areas. At the local level, individual cities and counties establish policies in their general plans and climate action plans related to the energy efficiency of new development and land use planning and to the use of renewable energy sources.

FEDERAL

Energy Policy and Conservation Act, and CAFE Standards

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Pursuant to this Act, the National Highway Traffic and Safety Administration, part of the U.S. Department of Transportation (DOT), is responsible for revising existing fuel economy standards and establishing new vehicle economy standards.

The Corporate Average Fuel Economy (CAFE) program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Compliance with the CAFE standards is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the country. EPA calculates a CAFE value for each manufacturer based on the city and highway fuel economy test results and vehicle sales. The CAFE values are a weighted harmonic average of the EPA city and highway fuel economy test results. Based on information generated under the CAFE program, DOT is authorized to assess penalties for noncompliance. Under the Energy Independence and Security Act of 2007 (described below), the CAFE standards were revised for the first time in 30 years.

Energy Policy Act of 1992 and 2005

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of

alternative fuel vehicles (AFVs) in large, centrally-fueled fleets in metropolitan areas. EPAct requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs. The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 is designed to improve vehicle fuel economy and help reduce U.S. dependence on oil. It represents a major step forward in expanding the production of renewable fuels, reducing dependence on oil, and confronting global climate change. The Energy Independence and Security Act of 2007 increases 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, which represents a nearly five-fold increase over current levels; and reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020—an increase in fuel economy standards of 40 percent.

By addressing renewable fuels and the CAFE standards, the Energy Independence and Security Act of 2007 builds upon progress made by the Energy Policy Act of 2005 in setting out a comprehensive national energy strategy for the 21st century.

STATE

Warren-Alquist Act

The 1975 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The Act established state policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The California Public Utilities Commission (CPUC) regulates privately-owned utilities in the energy, rail, telecommunications, and water fields.

State of California Energy Action Plan

CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The current plan is the 2003 California Energy Action Plan (2008 update). The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs; and encouragement of urban design that reduces vehicle miles traveled (VMT) and accommodates pedestrian and bicycle access.

Assembly Bill 2076: Reducing Dependence on Petroleum

Pursuant to Assembly Bill (AB) 2076 (Chapter 936, Statutes of 2000), CEC and the California Air Resources Board (CARB) prepared and adopted a joint agency report in 2003, *Reducing California's Petroleum Dependence.* Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly

increase the efficiency of motor vehicles, and reduce per capita VMT (CEC and CARB 2003). Further, in response to the CEC's 2003 and 2005 *Integrated Energy Policy Reports*, Governor Davis directed CEC to take the lead in developing a long-term plan to increase alternative fuel use.

A performance-based goal of AB 2076 was to reduce petroleum demand to 15 percent below 2003 demand.

Integrated Energy Policy Report

Senate Bill (SB) 1389 (Chapter 568, Statutes of 2002) required CEC to: "conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The Energy Commission shall use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety" (Public Resources Code Section 25301(a)). This work culminated in the Integrated Energy Policy Report (IEPR).

CEC adopts an IEPR every two years and an update every other year. The 2017 IEPR is the most recent IEPR, which was adopted March 16, 2018. The 2017 IEPR provides a summary of priority energy issues currently facing the State, outlining strategies and recommendations to further the State's goal of ensuring reliable, affordable, and environmentally-responsible energy sources. Energy topics covered in the report include progress toward statewide renewable energy targets and issues facing future renewable development; efforts to increase energy efficiency in existing and new buildings; progress by utilities in achieving energy efficiency targets and potential; improving coordination among the State's energy agencies; streamlining power plant licensing processes; results of preliminary forecasts of electricity, natural gas, and transportation fuel supply and demand; future energy infrastructure needs; the need for research and development efforts to statewide energy policies; and issues facing California's nuclear power plants.

Senate Bill 1078: California Renewables Portfolio Standard Program

SB 1078 (Chapter 516, Statutes of 2002) establishes a renewable portfolio standard (RPS) for electricity supply. The RPS requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide 20 percent of their supply from renewable sources by 2017. This target date was moved forward by SB 1078 to require compliance by 2010. In addition, electricity providers subject to the RPS must increase their renewable share by at least 1 percent each year. The outcome of this legislation will impact regional transportation powered by electricity. As of 2016, the State has reported that 21 percent of electricity is sourced from certified renewable sources (see Section 4.5.2, "Environmental Setting").

Senate Bill X1-2: California Renewable Energy Resources Act

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB X1-2 sets a three-stage compliance period requiring all California utilities, including independently-owned utilities, energy service providers, and community choice aggregators, to generate 20 percent of their electricity from renewables by December 31, 2013; 25 percent by December 31, 2016; and 33 percent by December 31, 2020. SB X1-2 also requires the renewable electricity standard to be met increasingly with renewable energy that is supplied to the California grid from sources within, or directly proximate to, California. SB X1-2 mandates that renewables from these sources make up at least 50 percent of the total renewable energy for the 2011-2013 compliance period, at least 65 percent for the 2014-2016 compliance period, and at least 75 percent for 2016 and beyond.

Senate Bill 100: California Renewables Portfolio Standard Program

SB 100 requires that all California utilities, including independently-owned utilities, energy service providers, and community choice aggregators, supply 44 percent of retail sales from renewable resources by December 31, 2024, 50 percent by December 31, 2026, 52 percent by December 31, 2027, and 60 percent by December 31, 2030. The law requires that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045.

Senate Bill 350: Clean Energy and Pollution Reduction Act of 2015

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires doubling of the energy efficiency savings in electricity and natural gas for retail customers through energy efficiency and conservation by December 31, 2030.

Energy Action Plan

The first Energy Action Plan (EAP) emerged in 2003 from a crisis atmosphere in California's energy markets. The State's three major energy policy agencies (CEC, CPUC, and the Consumer Power and Conservation Financing Authority [established under deregulation and now defunct]) came together to develop one high-level, coherent approach to meeting California's electricity and natural gas needs. It was the first time that energy policy agencies formally collaborated to define a common vision and set of strategies to address California's future energy needs and emphasize the importance of the impacts of energy policy on the California environment.

In the October 2005 *Energy Action Plan II*, CEC and CPUC updated their energy policy vision by adding some important dimensions to the policy areas included in the original EAP, such as the emerging importance of climate change, transportation-related energy issues and research and development activities. CEC recently adopted an update to the EAP II in February 2008 that supplements the earlier EAPs and examines the State's ongoing actions in the context of global climate change.

Assembly Bill 1007: State Alternative Fuels Plan

AB 1007 (Chapter 371, Statues of 2005) required CEC to prepare a state plan to increase the use of alternative fuels in California. CEC prepared the State Alternative Fuels Plan (SAF Plan) in partnership with CARB and in consultation with other State, federal, and local agencies. The SAF Plan presents strategies and actions California must take to increase the use of alternative non-petroleum fuels in a manner that minimizes the costs to California and maximizes the economic benefits of in-state production. The SAF Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce greenhouse gas (GHG) emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

California Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the state's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Code was established by CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption, and provide energy efficiency standards for residential and non-residential buildings. CEC updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions. In 2016, CEC updated the California Energy Code again, effective January 1, 2017. CEC estimates that the 2016 California Energy Code is 28 percent more efficient than 2013 California Energy Code for residential construction and is 5 percent more efficient for non-residential construction.

The 2019 California Energy Code was adopted by CEC on May 9, 2018 and will apply to projects constructed after January 1, 2020. The 2019 California Energy Code is designed to move the State closer to its zero-net energy goals for new residential development. It does so by requiring all new residences to install enough renewable energy to offset all the electricity needs of each residential unit (CCR, Title 24, Part 6, Section 150.1(c)4). CEC estimates that the combination of mandatory on-site renewable energy and prescriptively-required energy efficiency standards will result in a 53 percent reduction in new residential construction as compared to the 2016 California Energy Code. Non-residential buildings are anticipated to reduce energy consumption by 30 percent as compared to the 2016 California Energy Code primarily through prescriptive requirements for high-efficiency lighting (CEC 2018). The Energy Code is enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary due to local climatologic, geologic, or topographic conditions, provided that these standards exceed those provided in the California Energy Code.

Assembly Bill 32, Senate Bill 32, and Climate Change Scoping Plan and Update

In December 2008, CARB adopted its Climate Change Scoping Plan, which contains the main strategies California will implement to achieve reduction of approximately 118 million metric tons (MMT) of carbon dioxide-equivalent (CO_2e) emissions, or approximately 21.7 percent from the State's projected 2020 emission level of 545 MMT of CO_2e under a business-as-usual scenario (this is a reduction of 47 MMT CO_2e, or almost 10 percent, from 2008 emissions). In May 2014, CARB released and has since adopted the *First Update to the Climate Change Scoping Plan* to identify the next steps in reaching AB 32 goals and evaluate progress that has been made between 2000 and 2012 (CARB 2014). According to the update, California is on track to meet the near-term 2020 GHG limit and is well positioned to maintain and continue reductions beyond 2020 (CARB 2014). The update also reports the trends in GHG emissions from various emissions sectors (e.g., transportation, building energy, agriculture).

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050. Achievement of these goals will have the co-benefit of reducing California's dependency of fossil fuels and making land use development and transportation systems more energy efficient.

California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by CARB, outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and "substantially advance toward our 2050 climate goals" (CARB 2017:1, 3, 5, 20, 25–26). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste). In 2015, electricity generation accounted for 11 percent of the State's GHG emissions. California plans to significantly reduce GHG emissions from the energy through the development of renewable electricity generation in the form of solar, wind, geothermal, hydraulic, and biomass generation. The State is on target meet the SB X1-2-33 percent renewable energy target by 2020 and will continue to increase statewide renewable energy to 50 percent by 2030, as directed by SB 350. Additionally, the State will further its climate goals through improving the energy efficiency of residential and non-residential buildings by continual updates (i.e., every 3 years) to the California Energy Code, which contains mandatory and prescriptive energy efficiency standards for all new construction.

More details about the statewide GHG reduction goals and 2017 Scoping Plan measures are provided in the regulatory setting of Section 5.7, “Greenhouse Gas Emissions and Climate Change.”

Senate Bill 375

SB 375, signed by the Governor in September 2008, aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy (SCS) or Alternative Planning Strategy, showing prescribed land use allocation in each MPO’s Regional Transportation Plan. CARB, in consultation with the MPOs, is to provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in their respective regions for 2020 and 2035. Implementation of SB 375 will have the co-benefit of reducing California’s dependency of fossil fuels and making land use development and transportation systems more energy efficient.

The Sacramento Area Council of Governments (SACOG) serves as the MPO for Sacramento, Placer, El Dorado, Yuba, Sutter, and Yolo Counties, excluding those lands located in the Lake Tahoe Basin. The Specific Plan Area is located within Sacramento County. SACOG adopted its Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) 2035 in 2012, and completed an update adopted on February 18, 2016. In March of 2018, CARB approved the final staff recommendations for updated MPO reduction targets. The final recommended reduction targets established for SACOG are to achieve a 7 percent per-capita reduction compared to 2012 emissions from cars and trucks by 2020 and a 19 percent per-capita reduction by 2035 (CARB 2018).

Executive Order B-30-15

On April 20, 2015 Governor Edmund G. Brown Jr. signed Executive Order B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (Assembly Bill 32, discussed above). California’s new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050. This is in line with the scientifically established levels needed in the U.S. to limit global warming below 2 degrees Celsius, the warming threshold at which major climate disruptions are projected, such as super droughts and rising sea levels.

Advanced Clean Cars Program

In January 2012, CARB approved the Advanced Clean Cars program which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles, into a single package of standards for vehicle model years 2017 through 2025. The new rules strengthen the GHG standard for 2017 models and beyond. This will be achieved through existing technologies, the use of stronger and lighter materials, and more efficient drivetrains and engines. The program’s zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California’s new vehicle sales by 2025. The program also includes a clean fuels outlet regulation designed to support the commercialization of zero-emission hydrogen fuel cell vehicles planned by vehicle manufacturers by 2015 by requiring increased numbers of hydrogen fueling stations throughout the state. The number of stations will grow as vehicle manufacturers sell more fuel cell vehicles. By 2025, when the rules will be fully implemented, the statewide fleet of new cars and light trucks will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions than the statewide fleet in 2016 (CARB 2016).

LOCAL

City of Sacramento

City of Sacramento 2035 General Plan

The City of Sacramento 2035 General Plan includes the following policies applicable to the energy efficiency of new development and reducing communitywide energy consumption in Sacramento:

- **Policy U 6.1.5:** Energy Consumption per Capita. The City shall encourage residents and businesses to consume 25 percent less energy by 2030 compared to the baseline year of 2005.
- **Policy U 6.1.6:** Renewable Energy. The City shall encourage the installation and construction of renewable energy systems and facilities such as wind solar, hydropower, geothermal, and biomass facilities.
- **Policy U 6.1.7:** Solar Access. The City shall ensure, to the extent feasible, that sites, subdivisions, landscaping, and buildings are configured and designed to maximize passive solar access.
- **Policy U 6.1.8:** Other Energy Generation Systems. The City shall promote the use of locally shared solar, wind, and other energy generation systems as part of new planned developments.
- **Policy U 6.1.15:** Energy Efficiency Appliances. The City shall encourage builders to supply EnergyStar™ appliances and HVAC [heating, ventilation, and cooling] systems in all new residential developments, and shall encourage builders to install high-efficiency boilers where applicable, in all new non-residential developments.

Sacramento Climate Action Plan

The Sacramento Climate Action Plan was adopted on February 14, 2012 by the Sacramento City Council and was incorporated into the 2035 General Plan. The Sacramento Climate Action Plan includes GHG emission reduction targets, strategies, and implementation measures developed to help the city reach these targets. Reduction strategies address GHG emissions associated with transportation and land use, energy, water, waste management and recycling, agriculture, and open space. The City's goals related to transportation and energy use are described below.

- Improve accessibility and system connectivity by removing physical and operational barriers to safe travel.
- Reduce reliance on the private automobile.
- Use emerging transportation technologies and services to increase transportation system efficiency.
- Design, construct, and maintain a universally accessible, safe, convenient, integrated and well-connected pedestrian system that promotes walking.
- Create and maintain a safe, comprehensive, and integrated transit system as an essential component of a multimodal transportation system.
- Support the development and provision of privately funded and/or privately-operated transit services that support citywide and regional goals by reducing single-occupant vehicles (SOV) trips, vehicle miles traveled and GHG emissions.

- The City and other agencies within jurisdiction over roadways within City limits shall plan, design, operate and maintain all streets and roadways to accommodate and promote safe and convenient travel for all users – pedestrians, bicyclists, transit riders, and persons of all abilities, as well as freight and motor vehicle drivers.
- Maintain an interconnected system of streets that allows travel on multiple routes by multiple modes, balancing access, mobility and place-making functions with sensitivity to the existing and planned land use context of each corridor and major street segment.
- Create and maintain a safe, comprehensive, and integrated bicycle system and set of support facilities throughout the city that encourage bicycling that is accessible to all. Provide bicycle facilities, programs and services and implement other transportation and land use policies as necessary to achieve the City's bicycle mode share goal as documented in the Bicycle Master Plan.
- Provide and manage parking such that it balances the citywide goal of economic development, livable neighborhoods, sustainability, and public safety with the compact multi-modal urban environment prescribed by the General Plan.
- Provide for the energy needs of the city and decrease dependence on nonrenewable energy sources through energy conservation, efficiency, and renewable resource strategies.

4.5.2 Environmental Setting

PHYSICAL SETTING

Energy Facilities and Services within the Specific Plan Area

Electricity service within the Specific Plan Area and in the City of Sacramento is provided by the Sacramento Municipal Utility District (SMUD) via predominantly overhead utility lines with some underground lines provided within the Sacramento Marina and The Mill at Broadway. The existing 21 kilovolt lines within the Specific Plan Area connect to Station D, located at 8th and R Streets, via two feeder lines. Natural gas service within the Specific Plan Area is provided by the Pacific Gas and Electric Company (PG&E). PG&E has existing gas transmission and distribution facilities that range in diameter from 1 inch to 24 inches within the Specific Plan Area.

Energy Types and Sources

California relies on a regional power system comprised of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. One-third of energy commodities consumed in California is natural gas. In 2014, approximately 35 percent of natural gas consumed in the state was used to generate electricity. Residential land uses represented approximately 17 percent of California's natural gas consumption with the balance consumed by the industrial, resource extraction, and commercial sectors (EIA 2014). Power plants in California generate approximately 70 percent of the in-state electricity demand, with large hydroelectric in the Pacific Northwest and power plants in the Southwestern U.S. generating the remaining electricity (CEC 2017). The contribution of in- and out-of-state power plants depends on the precipitation that occurred in the previous year, the corresponding amount of hydroelectric power that is available, and other factors. SMUD is the primary electricity supplier in Sacramento County.

Alternative Fuels

A variety of alternative fuels are used to reduce demand for petroleum-based fuel. The use of these fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, AB 32 Scoping Plan). Conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many transportation fuels, including:

- biodiesel,
- electricity,
- ethanol (E-10 and E-85),
- hydrogen,
- natural gas (methane in the form of compressed and liquefied natural gas),
- propane,
- renewable diesel (including biomass-to-liquid),
- synthetic fuels, and
- gas-to-liquid and coal-to-liquid fuels.

California has a growing number of alternative fuel vehicles through the joint efforts of CEC, CARB, local air districts, federal government, transit agencies, utilities, and other public and private entities. As of 2019, California contained nearly 25,280 alternative fueling stations (AFDC 2017).

COMMERCIAL AND RESIDENTIAL ENERGY USE

Homes built between 2000 and 2015 used 14 percent less energy per square foot than homes built in the 1980s, and 40 percent less energy per square foot than homes built before 1950. However, the increase size of newer homes has offset these efficiency improvements. Primary energy consumption in the residential sector total 21 quadrillion Btu in 2009 (the latest year the EIA's *Residential Energy Consumption Survey* was completed), equal to 54 percent of consumption in the buildings sector and 22 percent of total primary energy consumption in the U.S. Energy consumption increased 24 percent from 1990 to 2009. However, because of projected improvements in building and appliance efficiency, the EIA 2017 Annual Energy Outlook forecast a 5 percent increase in energy consumption from 2016 to 2040 (EIA 2017).

In aggregate, commercial buildings consumed 46 percent of building energy consumption and approximately 19 percent of U.S. energy consumption. In comparison, the residential sector consumed approximately 22 percent of U.S. energy consumption (U.S. Department of Energy 2012).

ENERGY USE FOR TRANSPORTATION

On-road vehicles use about 90 percent of the petroleum consumed in California. The California Department of Transportation (Caltrans) projected 782 million gallons of gasoline and diesel were consumed in Sacramento County in 2015, an increase of approximately 88 million gallons of fuel from 2010 levels (Caltrans 2008).

ENERGY USE AND CLIMATE CHANGE

Scientists and climatologists have produced evidence that the burning of fossil fuels by vehicles, power plants, industrial facilities, residences, and commercial facilities has led to an increase of the earth's temperature. For an analysis of greenhouse gas production and the WBSP's impacts on climate change, refer to Section 4.7, "Greenhouse Gas Emissions and Climate Change."

4.5.3 Impacts and Mitigation Measures

METHODOLOGY

Energy consumption estimates during construction and operation of uses anticipated under the WBSP were calculated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 computer program (CAPCOA 2016). Energy use is expressed in terms of megawatt-hours of electricity, therms of natural gas, gallons of gasoline, and gallons of diesel fuel. Where project-specific information was not known, CalEEMod default values based on the location of the Specific Plan Area were used. Table 4.5-1 summarizes the levels of energy consumption for each year of construction, and Table 4.5-2 summarizes the levels of energy consumption for the first year of operation during the buildout year of 2036. Table 4.5-3 summarizes the gasoline and diesel consumption estimated for uses associated with implementation of the WBSP.

Table 4.5-1 Construction Energy Consumption

Construction Phase	Diesel (gallons)	Gasoline (gallons)
Demolition	52,679	589
Site Preparation	31,934	706
Grading	134,517	2,022
Building Construction	2,495,101	4,244,378
Paving	35,456	1,079
Architectural Coating	3,707	849,280
Total	2,753,393	5,098,054
Annual (2020-2035)	183,560	339,870

Notes: Gasoline gallons include on-road gallons from worker trips. Diesel gallons include off-road equipment and on-road gallons from worker and vendor trips.

Source: Calculations by Ascent Environmental in 2019

Table 4.5-2 Operational Energy Consumption

Land Use/Energy Type	Energy Consumption	Units
Residential Designations		
Electricity	20,836	MWh/year
Natural Gas	52,096	MMBtu/year
Commercial + Office Zones		
Electricity	2,584	MWh/year
Natural Gas	1,323	MMBtu/year

Land Use/Energy Type	Energy Consumption	Units
Public/Quasi Public Zones		
Electricity	892	MWh/year
Natural Gas	2,256	MMBtu/year
All Land Uses		
Electricity	24,312	MWh/year
Natural Gas	55,675	MMBtu/year

Notes: MWh/year = megawatt-hours per year; MMBtu/year = million British thermal units per year.

Source: Calculations by Ascent Environmental in 2019

Table 4.5-3 Gasoline and Diesel Consumption in 2036

Vehicle Category	Gasoline (gal/year)	Diesel (gal/year)	Natural Gas (DEG)
Passenger Vehicles	1,433,643	9,684	N/A
Trucks	278,733	367,838	8,561
Buses	30,062	10,540	27,869
Total (All Vehicle Types)	1,742,437	388,063	36,430

Notes: gal/year = gallons per year, DEG/year = diesel equivalent gallons per year, N/A = not applicable.

Source: Calculations by Ascent Environmental in 2019

THRESHOLDS OF SIGNIFICANCE

Based on Appendices F and G of the State CEQA Guidelines, implementation of the WBSP would result in a potentially significant impact on energy use if it would:

- result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during construction or operation; and/or
- conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.5-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy, During Construction or Operation

Implementation of the WBSP would result in the consumption of additional energy supplies during the construction of new land uses within the Specific Plan Area. However, the consumption of energy during construction activities would be temporary and are not anticipated to require additional capacity or substantially increase peak or base period demands for electricity and other forms of energy. Operation of new land uses associated with WBSP implementation would also result in additional energy consumption. However, the WBSP includes policies and guidelines intended to increase use of active transportation modes and reduce energy associated with vehicle usage, as well as the incorporation of energy efficiency and renewable energy measures in new development. As a result, impacts would be **less than significant**.

Appendix F of the State CEQA Guidelines requires the consideration of the energy implications of a project. CEQA requires mitigation measures to prevent or reduce "wasteful, inefficient and unnecessary" energy usage (Public Resources Code Section 21100, subdivision (b)(3)). Neither the law nor the State CEQA Guidelines establish thresholds that define when energy consumption is considered wasteful, inefficient and unnecessary.

Construction-Related Energy

The majority of construction-related energy consumption within the Specific Plan Area would be associated with the use of heavy-duty, off-road equipment and the transport of equipment and waste using on-road haul trucks. This would occur during construction of individual development projects or demolition of existing uses within the Specific Plan Area. An estimated 2,753,393 gallons of gasoline and 5,098,054 gallons of diesel fuel would be used during construction of the land uses anticipated under the WBSP. The energy needs for construction activities would be temporary and are not anticipated to require additional capacity or substantially increase peak or base period demands for electricity and other forms of energy. Construction equipment use and associated energy consumption would be typical of that associated with construction of new residential and commercial/industrial land uses. In other words, there are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy efficient than those used at comparable construction sites in other parts of the State. Idling of on-site equipment during construction would be limited to no more than five minutes in accordance with applicable requirements. Further, on-site construction equipment may include alternatively-fueled vehicles (such as natural gas) where feasible. Finally the City-selected construction contractors will be required to use best available engineering techniques, construction and design practices, and equipment operating procedures, in accordance with current building code requirements and any applicable City regulations or conditions of project-specific development agreements, thereby ensuring that the wasteful consumption of fuels and use of energy would not occur. Energy efficiency is also expected for the off-site production of construction materials, based on the economic incentive for efficiency. Non-renewable energy would not be consumed in a wasteful, inefficient, or unnecessary manner when compared to other construction sites in the region.

Operational Energy

The operation of new uses allowed under the WBSP would increase energy demands within the Specific Plan Area, primarily associated with electricity and natural gas consumption for building operations and transportation fuel consumption from commute trips taken by new residents and employees. This would include natural gas and electricity for use in appliances (e.g., water heating, building heating and cooling, clothes washers, dishwashers). Electricity would be used for lighting in buildings, as well as for street and public lighting. Energy could also be used in the form of fuels for stationary equipment (e.g., generators, landscaping equipment) that may be used within the Marina/Miller Regional Park Special Study Area. Transportation-related energy consumption would include the use of fuels and electricity to power cars, trucks and public transportation vehicles.

All buildings to be developed as part of the WBSP would be required to comply with the California Energy Code standards for building energy efficiency. As development under the WBSP would likely occur through 2035, the California Energy Code is anticipated to be updated with increasingly stringent energy efficiency requirements. This would result in increased building energy efficiency over time as buildings continue to be developed within the Specific Plan Area. Nonetheless, implementation of the WBSP would still result in an increase in overall energy use compared to existing conditions due to the net increase in land uses that may occur. Table 4.5-2 summarizes the levels of energy consumption associated with the operation of land uses that would be built. In total, the increase in development potential associated with implementation of the WBSP would consume an estimated 24,312 megawatt-

hours per year of electricity and 55,675 million British thermal units per year of natural gas. Operational energy use is anticipated to be typical of the land uses allowed under the WBSP.

In addition, development of these new land uses would result in new vehicle trips, discussed in detail in Section 4.12, “Transportation and Circulation.” New vehicle trips associated with the Project would result in energy use in the form of gasoline, diesel, compressed natural gas, and electricity. As shown in Table 4.5-3 below, Project implementation is estimated to result in the annual consumption 1,742,437 gallons of gasoline, 388,063 gallons of diesel, and 36,430 diesel equivalent gallons of natural gas.

The WBSP includes the following policies and guidelines related to renewable energy or energy efficiency for individual development projects that would be implemented as development occurs within the Specific Plan Area:

- **9.5.1 Neighborhood Form**
  - **Walkable Neighborhood Block and Street Grid Pattern**
    - **Guideline 1:** Multimodal Blocks and buildings are encouraged to be laid out in a pattern that enables units to maximize solar access and incorporate features, such as solar panels, natural daylighting, and podium or rooftop gardens.
  - **Building Articulation and Details**
    - **Guideline 5:** Energy conservation strategies, including window shading devices, selection of colors to reduce heat gain, energy efficient windows, cool roofs, high-quality insulation and radiant barriers, solar panels, and whole house energy systems are encouraged, to reduce energy consumption associated with heating and air conditioning during winter and summer months.
    - **Guideline 14:** Photovoltaic solar panels or solar shingles are also encouraged, to generate energy for home use and reduce reliance on grid power.
- **9.6.2 Residential Building Design**
  - **Building Articulation and Details**
    - Installation of radiant heat barriers and insulation in attics and rafters and cool roof options, including lighter colored, high albedo coatings and other cool roofing materials and applications are encouraged to support home energy efficiency and reduce heating and cooling costs.

The WBSP also includes a number of policies and guidelines which would reduce VMT and associated fuel/energy consumption by including design features in support of active transportation modes such as biking and walking. As shown in Chapter 2, “Project Description,” these design features include traffic calming measures, bike and pedestrian facility improvements, and improved street grid that would increase connectivity between destinations in the Specific Plan Area.

Therefore, although energy demands would increase as a result of WBSP implementation, development under the WBSP would be required to comply with applicable energy efficiency requirements and would also implement WBSP-specific design features that could potentially increase energy efficiency in the buildings and facilities associated with development of the Specific Plan Area. The WBSP also includes design features intended to support active transportation and assist in the

overall reduction in VMT and, therefore, reduce transportation-related energy demand. For these reasons, implementation of the WBSP would not result in in the wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation of uses within the Specific Plan Area. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. Scenario B option would result in less development Specific Plan Area and, therefore, would result in less energy demand and consumption than the proposed WBSP. However, potential development within the remaining portions of the Specific Plan Area would remain similar to the proposed WBSP, and impacts would also be **less than significant**.

Impact 4.5-2: Conflict With or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency

Although implementation of the WBSP would increase energy demands as a result of the construction and operation of new land uses within the Specific Plan Area, development would be required to comply with applicable California Energy Code requirements and would also comply with the WBSP's policies and guidelines intended to encourage energy efficiency measures and incorporate renewable energy into individual development projects in the Specific Plan Area. As a result, implementation of the WBSP would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact would be **less than significant**.

As noted above in Impact 4.5-1, implementation of the WBSP would result in the development of new land uses resulting in new energy demand for electricity and natural gas. As part of the WBSP, new development would be required to comply with WBSP policies and guidelines that encourage active transportation modes and reduce automobile use as the primary mode of transportation by providing adequate pedestrian and bicycle facilities throughout the Specific Plan Area, including:

- **7.2 Circulation Goals and Policies**
  - **Safe and Accessible Streets:** M-1.5: As new development occurs, provide enhanced bicycle and pedestrian improvements along 5th Street and Muir Way, including wide sidewalks and dedicated space for bike share and bicycle parking.
- **7.4 Pedestrian Circulation System**
  - **7.4.2 Planned Improvements:** An interconnected pedestrian network is planned for the Specific Plan Area created through new greenways within the open space network and walkways that will be provided along the improved street grid within the Specific Plan Area. This pedestrian network allows residents to conveniently walk from their homes to open space amenities, schools, transit, retail, and other neighborhood services in the local vicinity. The City's Pedestrian Master Plan also identifies 5th Street and Muir Way to be designed as enhanced pedestrian facilities. Opportunities to widen the sidewalks and provide additional bike and pedestrian amenities on these streets is recommended. The bike/pedestrian paseo created on the north end of Muir Way provides an opportunity for a shaded open space or plaza space with a bike and pedestrian gateway into the neighborhood.

- **9.3 Sustainability: Sustainable Design Principles**
  - **Walkable, Pedestrian-Friendly Neighborhood Design**
    - Wide sidewalks and active street uses
    - Pedestrian-scaled architecture and pedestrian amenities
    - Continuation, additions to the urban canopy
  - **Walkable, Multimodal Circulation and Connectivity**
    - Multimodal streets for vehicular, transit, bike, pedestrian, and other alternative transportation modes connecting to the Central City and riverfront bike trails
- **9.5.1 Neighborhood Form Guideline: Complete Streets and Trail Network:**
  - Comfortable sidewalks shall line both sides of every public street. To achieve this consistently, sidewalk easements may be required into private property adjacent to a right-of-way.
  - All streets should provide sidewalks sized to support safe pedestrian access and to serve the intended use. For example, wider sidewalks of a minimum of 6 feet is encouraged on McClatchy Way, adjacent to the existing school facilities. Wider sidewalks should also be provided adjacent to commercial and mixed-use development.
- **9.6 Residential Design**
  - Common and Private Open Space
    - On-site pedestrian circulation should connect all units to common open space and neighborhood sidewalks and paths.
- **Section 9 Development Standards and Design Guidelines**
  - This section of the WBSP provides specific design guidelines for sidewalks, landscaping, and public amenities for commercial and mixed-use zones in the Specific Plan Area.

In addition, the WBSP would provide several bike facility improvements within the Specific Plan Area neighborhood including:

- Enhanced Class II buffered bike lanes planned along the length of Broadway
- Class I shared-use paths, west of 5th Street, linking neighborhoods to the new parks in The Mill at Broadway and Marina Vista subareas and to schools for safe neighborhood routes to schools
- A distributed network of Class II bike lanes through the neighborhood created along 3rd Street, 5th Street, 7th Street/ McClatchy Way, and Crate Avenue
- Class III bike routes closing gaps in the bicycle network to connect with Vallejo Way

Implementation of the WBSP would also be consistent with State policies related to energy efficiency and renewable energy. As noted above, new land uses developed as part of WBSP implementation would comply with the California Energy Code, which is intended to increase the energy efficiency of new development projects in the state. The 2019 California Energy Code (going into effect in on January 1, 2020) is designed to move the State closer to its zero-net energy goals and will require all

multi-family homes (up to three stories) to install enough renewable energy to offset all the electricity needs of each residential unit. Through the permitting process, all development projects which are constructed in the Specific Plan Area would comply with the current and future versions of the State's Building Energy Efficiency Standards. As discussed in detail in the Regulatory Setting, SMUD, as an electricity utility, is required to comply with the State's Renewable Portfolio Standard. Because electricity utilities in the state are required to increase the percentage of renewable energy sources in the electricity they provide, over time electricity consumed as part of the WBSP will increasingly be provided by renewable sources. Due to the inclusion of energy efficiency and renewable energy measures as part of the WBSP and compliance with State regulations related energy efficiency and renewable energy, implementation of the WBSP would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. Although implementation of Scenario B option would result in less development as part of the project and, therefore, less overall energy demand than the proposed WBSP, new development within the Specific Plan Area would be subject to the same requirements and standards related to renewable energy and energy efficiency. As a result, impacts would remain similar to the proposed WBSP and **less than significant**.

CUMULATIVE IMPACTS

Impact 4.5-3: Potential for Implementation of the WBSP, in Combination With Other Development, to Contribute to a Significant Cumulative Impact Related to Energy Demand

Implementation of the WBSP, in combination with other cumulative development in the area, would increase energy demands in the area. However, the WBSP includes several design features and policies related to energy efficiency, and new development would comply with applicable energy-efficiency-related requirements such that the WBSP would not be considered cumulatively considerable with respect to energy-related impacts. Impacts would be **less than significant**.

The cumulative context for energy use is Sacramento County. Continued growth throughout SMUD's and PG&E's service areas within Sacramento County could contribute to ongoing increases in demand for electricity and natural gas. These anticipated increases would be countered, in part, by ongoing increases in national, statewide, and local requirements and incentives to support construction or retrofit of buildings with increased energy efficiency. Similarly, and as noted above, construction associated with implementation of the WBSP would result in a temporary increase in fuel consumption, while the increase in development potential within the Specific Plan Area could also increase long-term energy demands. However, as noted above, fuel would not be consumed in a wasteful manner during construction or operation of individual projects and would not be cumulatively considerable. With respect to operation, implementation of the policies and actions of the WBSP would insure that the potential increases in transportation-related energy consumption as a result of plan implementation would be offset through the provision of improved facilities for active modes of transportation. Further and as noted above, all new development would be required to comply with current California Energy Code requirements related to building energy efficiency. Additionally, conservation policies encouraged by the City, including those set forth in the City's 2035 General Plan (electricity and natural gas services,

energy consumption per capita, renewable energy, energy efficiency appliances) are expected to support increased energy conservation in new development, including that which would occur pursuant to the WBSP. Therefore, while increased development within the cumulative context could result in an overall increase in energy demand on suppliers, anticipated increases would be affected positively by these requirements such that the additional energy use would not be considered wasteful, inefficient, or unnecessary. Therefore, cumulative impacts related to energy are not significant and the project's contribution is not cumulatively considerable. This impact is considered less than significant.

Mitigation Measures

No mitigation is required for this impact.

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4.6 GEOLOGY AND SOILS

This section describes current conditions relative to geology and soils within the West Broadway Specific Plan (WBSP) Specific Plan Area (Specific Plan Area). It includes a description of soils and mineral resources, analysis of environmental impacts, and recommendations for mitigation measures for any significant or potentially significant impacts.

No comments related to geology and soils were received in response to the Notice of Preparation for this EIR.

4.6.1 Regulatory Setting

FEDERAL

National Earthquake Hazards Reduction Act

In October 1977, the U.S. Congress passed the Earthquake Hazards Reduction Act to reduce the risks to life and property from future earthquakes in the United States. To accomplish this, the act established the National Earthquake Hazards Reduction Program (NEHRP). The mission of NEHRP includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improved building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improved mitigation capacity; and accelerated application of research results. The NEHRP designates the Federal Emergency Management Agency as the lead agency of the program and assigns several planning, coordinating, and reporting responsibilities.

STATE

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (Public Resources Code [PRC] Section 2621-2630) intends to reduce the risk to life and property from surface fault rupture during earthquakes by regulating construction in active fault corridors, and by prohibiting the location of most types of structures intended for human occupancy across the traces of active faults. The act defines criteria for identifying active faults, giving legal support to terms such as active and inactive, and establishes a process for reviewing building proposals in Earthquake Fault Zones. Under the Alquist-Priolo Act, faults are zoned and construction along or across these zones is strictly regulated if they are “sufficiently active” and “well-defined.” A fault is considered sufficiently active if one or more of its segments or strands shows evidence of surface displacement during Holocene time (defined for purposes of the act as within the last 11,000 years). A fault is considered well defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment (Bryant and Hart 2007). Before a project can be permitted in a designated Alquist-Priolo Earthquake Fault Zone, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults. The law addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards.

Seismic Hazards Mapping Act

The intention of the Seismic Hazards Mapping Act of 1990 (PRC Section 2690–2699.6) is to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including ground shaking, liquefaction, and seismically induced landslides. The act's provisions are similar in concept to those of the Alquist-Priolo Act: The State is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development.

California Building Code

The California Building Code (CBC) (California Code of Regulations, Title 24) is based on the International Building Code. The CBC has been modified from the International Building Code for California conditions, with more detailed and/or more stringent regulations. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16 of the CBC. The CBC identifies seismic factors that must be considered in structural design. Chapter 18 of the CBC regulates the excavation of foundations and retaining walls, while Chapter 18A regulates construction on unstable soils, such as expansive soils and areas subject to liquefaction. Appendix J of the CBC regulates grading activities, including drainage and erosion control. The CBC contains a provision that provides for a preliminary soil report to be prepared to identify "…the presence of critically expansive soils or other soil problems which, if not corrected, would lead to structural defects." (CBC Chapter 18 §1803.1.1.1).

National Pollutant Discharge Elimination System Permit

The National Pollutant Discharge Elimination System (NPDES) permit system was established in the Clean Water Act (CWA) to regulate municipal and industrial point discharges to surface waters of the US. Each NPDES permit for point discharges contains limits on allowable concentrations of pollutants contained in discharges. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. Section 307 of the CWA describes the factors that the U.S. Environmental Protection Agency must consider in setting effluent limits for priority pollutants.

The CWA was amended in 1987 to require NPDES permits for non-point source (i.e., stormwater) pollutants in discharges. Stormwater sources are diffuse and originate over a wide area rather than from a definable point. The goal of NPDES stormwater regulations is to improve the quality of stormwater discharged to receiving waters to the "maximum extent practicable" through the use of structural and non-structural best management practices (BMPs). BMPs can include the development and implementation of various practices including educational measures (workshops informing public of what impacts results when household chemicals are dumped into storm drains), regulatory measures (local authority of drainage facility design), public policy measures, and structural measures (filter strips, grass swales and detention ponds).

LOCAL

City of Sacramento 2035 General Plan

The following goals and policies from the 2035 General Plan Public Health and Safety (PHS), Environmental Constraints (EC), Environmental Resources (ER), and Historic Cultural Resources (HCR) elements are relevant to geology, soils, and seismicity.

GOAL PHS 3.1: Reduce Exposure to Hazardous Materials and Waste. Protect and maintain the safety of residents, businesses, and visitors by reducing, and where possible, eliminating exposure to hazardous materials and waste.

- **Policy PHS 3.1.8: Risks from Hazardous Materials Facilities.** The City shall review proposed facilities that would produce or store hazardous materials, gas, natural gas, or other fuels to identify, and require feasible mitigation for, any significant risks. The review shall consider, at a minimum, the following: presence of seismic or geologic hazards; presence of hazardous materials; proximity to residential development and areas in which substantial concentrations of people would occur; and nature and level of risk and hazard associated with the proposed project.

GOAL EC 1.1: Hazards Risk Reduction. Protect lives and property from seismic and geologic hazards and adverse soil conditions.

- **Policy EC 1.1.1: Review Standards.** The City shall regularly review and enforce all seismic and geologic safety standards and require the use of best management practices (BMPs) in site design and building construction methods.
- **Policy EC 1.1.2: Geotechnical Investigations.** The City shall require geotechnical investigations to determine the potential for ground rupture, ground-shaking, and liquefaction due to seismic events, as well as expansive soils and subsidence problems on sites where these hazards are potentially present.

GOAL ER 1.1: Water Quality Protection. Protect local watersheds, water bodies and groundwater resources, including creeks, reservoirs, the Sacramento and American Rivers, and their shorelines.

- **Policy ER 1.1.7: Construction Site Impacts.** The City shall minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City's erosion and sediment control ordinance and stormwater management and discharge control ordinance.

GOAL HCR 2.1: Identification and Preservation of Historic and Cultural Resources. Identify and preserve the city's historic and cultural resources to enrich our sense of place and our understanding of the city's prehistory and history.

- **Policy HCR 2.1.16: Archaeological & Cultural Resources.** The City shall develop or ensure compliance with protocols that protect or mitigate impacts to archaeological and cultural resources including prehistoric resources.

Sacramento City Code

The City of Sacramento has adopted the updated CBC, with amendments, per Chapter 15.20 of the Municipal Code. This chapter mandates compliance with the CBC and all of its amendments adopted by the code. All new construction and modifications to existing structures within the city are subject to the requirements of the code.

The City of Sacramento's grading ordinance (Chapter 15.88 of the Sacramento Municipal Code) regulates grading on property within the City limits to safeguard life, limb, health, property, and the public welfare; to avoid pollution of watercourses with nutrients, sediments, or other materials generated or caused by surface water runoff; to comply with the City's NPDES issued by the California Regional Water Quality Control Board; and to ensure that the intended use of a graded site within the

City limits is consistent with the 2035 General Plan, any adopted specific plans, and all applicable City ordinances and regulations. This section regulates land disturbances, soil storage, pollution, and erosion and sedimentation resulting from construction activities within the City. Grading approval must be received from the Department of Utilities before construction. All projects are required to prepare erosion and sediment control plans which apply during and post construction. The plans include erosion control measures such as straw mulch, sediment controls such as fiber rolls, inlet protection, and housekeeping practices such as concrete management and spill prevention.

Consistent with Policy EC 1.1.2, site-specific geotechnical investigations would be required for development implemented under project. Geotechnical investigations must include soil borings to collect samples and laboratory testing to determine the appropriate design parameters for use for structural fill, roadbed fill, and landscaping fill, along with the fill placement requirements. The various soils may be tested for corrosivity to allow for proper infrastructure and foundation design.

Department of Utilities

The City of Sacramento Department of Utilities maintains policies, guidelines, and regulations regarding grading, erosion control, stormwater drainage design, inspection, and permitting. The Department of Utilities is responsible for issuing and oversight of several types of development permits, including grading and building permits.

4.6.2 Environmental Setting

REGIONAL GEOLOGY

The Specific Plan Area is located within the Sacramento Valley and lies centrally in the Great Valley geomorphic province of California (City of Sacramento 2015:7-1). The Sacramento Valley forms the northern third of the Great Valley, which fills a northwest-trending structural depression bounded on the west by the Great Valley Fault Zone and the northern Coast Range, and to the east by the northern Sierra Nevada and the Foothills Fault Zone. Most of the surface of the Great Valley is covered with Holocene and Pleistocene-age alluvium, primarily composed of sediments from the Sierra Nevada and the Coast Ranges, which were carried by water and deposited on the valley floor. Siltstone, claystone, and sandstone are the primary types of sedimentary deposits. Older Tertiary deposits underlie the Quaternary alluvium (City of Sacramento 2018:4.6-1).

LOCAL GEOLOGY AND TOPOGRAPHY

The Specific Plan Area is located within the Upper Land Park neighborhood of Sacramento, south of the Central City, and bordered on the west by the Sacramento River. The Specific Plan Area and its surroundings have been largely developed and are primarily underlain by disturbed soils, including alluvial deposits and artificial fill. The topography of the Sacramento region is relatively flat. There is a gradual slope rising from elevations as low as sea level in the southwestern portion of the city up to approximately 75 feet above sea level in the northeastern portion (City of Sacramento 2015:7-1). Ground surface elevations in the Specific Plan Area are generally between about 5 feet and 30 feet above mean sea level.

SEISMICITY

Most earthquakes originate along fault lines. A fault is a fracture in the Earth's crust along which rocks on one side are displaced relative to those on the other side due to shear and compressive crustal stresses. Most faults are the result of repeated displacement that may have taken place suddenly and/or by slow creep (Bryant and Hart 2007). The state of California has a classification system that designates faults as either active, potentially active, or inactive, depending on how recently displacement has occurred along them. Faults that show evidence of movement within the last 11,000 years (the Holocene geologic period) are considered active, and faults that have moved between 11,000 and 1.6 million years ago (comprising the later Pleistocene geologic period) are considered potentially active. Faults that do not show evidence of movement in the last 1.6 million years, or entire Quaternary geologic period (Holocene and Pleistocene periods combined) are considered inactive.

A review of available published geologic and seismic hazards maps indicates that there are no known active faults identified in or adjacent to the city of Sacramento. In addition, there has been no documented movement on faults mapped in Sacramento County during the past 150 years. However, the region has experienced numerous instances of groundshaking originating from faults in areas outside of the region, see Figure 4.6-1. The closest known potentially active fault mapped by the California Geological Survey is the Dunnigan Hills fault located about 20 miles northwest of Sacramento, with the closest branches of the seismically active San Andreas Fault System (historic activity, i.e., within the last 200 years) being the Green Valley and Concord faults, 43 and 50 miles to the southwest, respectively. The main trace of the San Andreas Fault System is approximately 80 miles to the southwest. Active nearby faults identified within 100 miles of the Sacramento area are listed in Table 4.6-1.

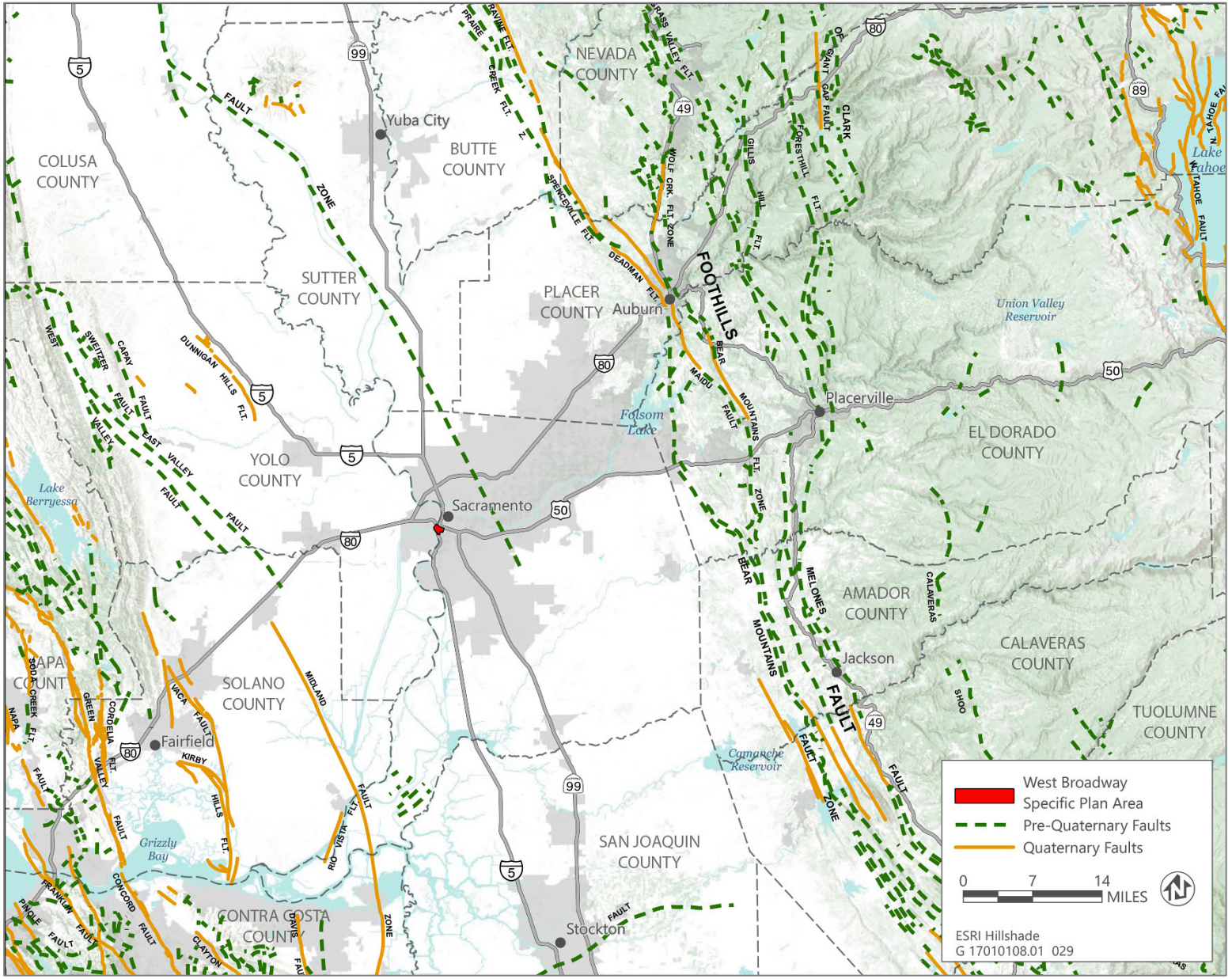
Table 4.6-1 Active Nearby Faults Within 100 Miles of the Specific Plan Area

Fault Name	Distance from Fault to Specific Plan Area (Miles)	Age of Movement	Characteristic Earthquake (moment magnitude)[1]
West Valley Faults			
Dunnigan Hills	19	<15,000	6.6
Foothill Fault System			
Bear Mountain	22	Unknown	6.0
New Melones	40	Unknown	6.0
San Andreas Fault System			
Vaca	28	<130,000	6.1
Greenville	43	<1,600,000	6.6
Concord	45	<150	6.2
Green Valley	42	<15,000	6.2
Healdsburg/Rogers Creek	56	<15,000	7.1
Hayward	66	<150	6.9-7.1
Calaveras	66	<15,000	7.5
San Andreas	80	<150	7.9

Notes: [1] Wesnousky, S.G. 1986

Source: Jennings and Bryant 2010

Seismic hazards resulting from earthquakes include surface fault rupture, ground shaking, and liquefaction. Each of these potential hazards is discussed below.



Source: Data downloaded from California Department of Conservation in 2015 and Yolo County in 2018

Figure 4.6-1 Faults

Surface Fault Rupture

Surface rupture is the surface expression of movement along a fault. Structures built over an active fault can be torn apart if the ground ruptures. The potential for surface rupture is based on the concepts of recency and recurrence. Surface rupture along faults is generally limited to a linear zone a few meters wide. The Alquist-Priolo Act, see Section 4.6.1, "Regulatory Setting," was created to prohibit the location of structures designed for human occupancy across, or within 50 feet of, an active fault, thereby reducing the loss of life and property from an earthquake. The Specific Plan Area is not located within an Alquist-Priolo active fault zone (Bryant and Hart 2007), and there is no evidence of active faulting within or near the Specific Plan Area.

Ground Shaking

The intensity of seismic shaking, or strong ground motion, during an earthquake is dependent on the distance and direction from the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions of the surrounding area. Ground shaking could potentially result in the damage or collapse of buildings and other structures. The probable seismic ground shaking expected at the Specific Plan Area is anticipated to produce peak ground accelerations between 10 and 20 percent of the acceleration of gravity; 0.1g and 0.2g, respectively (CGS 2018). Earthquake intensities generally associated with this amount of ground shaking are typically between VI and VII on the Modified Mercalli Intensity Scale (MMI) (Table 4.6-3). An expected characteristic earthquake on the entire San Andreas Fault System is a Moment Magnitude scale (Mw) of 7.9 and is probably the largest earthquake that would be felt in the Specific Plan Area. Given the distance between the San Andreas Fault and the Specific Plan Area, the felt intensity would be expected to be between MMI IV and V (light to moderate shaking). However, a felt intensity between MMI VII and VIII would be caused by a characteristic earthquake on the Dunnigan Hills fault of Mw 6.6 because it is much closer to the Specific Plan Area (City of Sacramento 2018:4.6-6).

Overall, the Specific Plan Area is located in an area of low earthquake hazard and therefore would experience low levels of ground shaking on an infrequent basis (CGS 2016). Based on data from the California Geological Survey (CGS), the Specific Plan Area would be expected to have 2 percent chance in 50 years to experience a ground motion of 0.326 g (CGS 2008).

Table 4.6-2 The Modified Mercalli Scale of Earthquake Intensities

If most of these effects are observed	Then the intensity is
Earthquake shaking not felt but people may observe marginal effects of large distance earthquakes without identifying these effects as earthquake-caused. Among them: trees, liquids, bodies of water sway slowly, or doors swing slowly.	I
Effect on people: Shaking felt by those at rest, especially if they are indoors, and by those on upper floors.	II
Effect on people: Felt by most people indoors. Some can estimate duration of shaking but many may not recognize shaking of building as caused by an earthquake; the shaking is like that caused by the passing of light trucks.	III
Other effects: Hanging objects swing. Structural effects: Windows or doors rattle. Wooden walls and frames creak.	IV
Effect on people: Felt by everyone indoors and by most people outdoors. Many now estimate not only the duration of shaking but also its direction and have no doubt as to its cause. Sleepers wakened. Other effects: Hanging objects swing. Standing autos rock. Crockery clashes, dishes rattle or glasses clink. Structural effects: Doors close, open or swing. Windows rattle.	V
Effect on people: Felt by everyone indoors and by most people outdoors. Many now estimate not only the duration of shaking but also its direction and have no doubt as to its cause. Sleepers wakened. Other effects: Hanging objects swing. Shutters or pictures move. Pendulum clocks stop, start, or change rate. Standing autos rock. Crockery clashes, dishes rattle or glasses clink. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Structural effects: Weak plaster and Masonry D* crack. Windows break. Doors close, open, or swing.	VI

If most of these effects are observed	Then the intensity is
Effect on people: Felt by everyone. Many are frightened and run outdoors. People walk unsteadily. Other effects: Small church or school bells ring. Pictures thrown off walls, knickknacks and books off shelves. Dishes or glasses broken. Furniture moved or overturned. Trees, bushes shaken visibly, or heard to rustle. Structural effects: Masonry D* damaged; some cracks in Masonry C*. Weak chimneys break at roof line. Plaster, loose bricks, stones, tiles, cornices, unbraced parapets, and architectural ornaments fall. Concrete irrigation ditches damaged.	VII
Effect on people: Difficult to stand. Shaking noticed by auto drivers. Other effects: Waves on ponds; water turbid with mud. Small slides and caving in along sand or gravel banks. Large bells ring. Furniture broken. Hanging objects quiver. Structural effects: Masonry D* heavily damaged; Masonry C* damaged, partially collapses in some cases; some damage to Masonry B*; none to Masonry A*. Stucco and some masonry walls fall. Chimneys, factory stacks, monuments, towers, elevated tanks twist or fall. Frame houses move on foundation if not bolted down; loose panel walls thrown out. Decayed piling broken off.	VIII
Effect on people: General fright. People thrown to ground. Other effects: Changes in flow or temperature of springs and wells. Cracks in wet ground and on steep slopes. Steering of autos affected. Branches broken from trees. Structural effects: Masonry D* destroyed; Masonry C* heavily damaged, sometimes with complete collapse; Masonry B* is seriously damaged. General damage to foundations. Frame structures, if not bolted, shifted off foundations. Frames cracked. Reservoirs seriously damaged. Underground pipes broken.	IX
Effect on people: General panic. Other effects: Conspicuous cracks in ground. In areas of soft ground, sand is ejected through holes and piles up into a small crate, and, in muddy areas, water fountains are formed. Structural effects: Mast masonry and frame structures destroyed along with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes, and embankments. Railroads bent slightly.	X
Effect on people: General panic. Other effects: Large landslides. Water thrown on banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flat land. Structural effects: General destruction of buildings. Underground pipelines completely out of service. Railroads bent greatly.	XI
Effect on people: General panic. Other effects: Same as for Intensity X. Structural effects: Damage nearly total, the ultimate catastrophe. Other effects: Large rock masses displaced. Lines of sight and level distorted. Objects thrown into air.	XII

Notes: * Masonry A: Good workmanship and mortar, reinforced, designed to resist lateral forces; Masonry B: Good workmanship and mortar, reinforced; Masonry C: Good workmanship and mortar, unreinforced; Masonry D: Poor workmanship and mortar and weak materials, like adobe.

Source: USGS 2016

Liquefaction and Lateral Spreading

Liquefaction is a phenomenon in which loose, saturated, granular soil deposits lose a substantial portion of their shear strength because of excess pore water pressure buildup. An earthquake, typically causes the increase in pore water pressure and subsequent liquefaction. These soils behave like a liquid during seismic shaking and re-solidify when shaking stops. The potential for liquefaction is highest in areas with high groundwater and loose, fine, sandy soils at depths of less than 50 feet. Based on mapping conducted pursuant to the Alquist-Priolo Act, the Specific Plan Area and surrounding area are not identified as located within an area of potential liquefaction hazard (Bryant and Hart 2007). However, the Specific Plan Area is underlain by alluvium deposits and is located near a natural levee. High groundwater levels and sandy soils could present the potential for liquefaction to occur.

Liquefaction may also lead to lateral spreading. Lateral spreading (also known as expansion) is the horizontal movement or spreading of soil toward an “open face,” such as a streambank, the open side of fill embankments, or the sides of levees. It often occurs in response to liquefaction of soils in an adjacent area. The potential for failure from lateral spreading is highest in areas where there is a high groundwater table, where there are relatively soft and recent alluvial deposits, and where creek banks are relatively high.

SOILS

The Natural Resource Conservations Service Web Soil Survey mapped the Specific Plan Area and identified the following soil units within the Specific Plan Area, as displayed in Figure 4.6-2 (NRCS 2018).

Columbia sandy loam. The Columbia sandy loam unit consists of very deep, somewhat poorly drained soils formed in alluvium from mixed sources. These soils are on flood plains and natural levees. Soils within the Specific Plan Area have slopes of 0 to 2 percent and are occasionally flooded (NRCS 2018). This soil unit is considered to have a low potential for expansive soils, also referred to as shrink-swell or linear extensibility. Additionally, this developed urban environment has been largely reworked and local soil conditions may vary (City of Sacramento 2018:4.6-3).

Sailboat. The Sailboat series consists of very deep, somewhat poorly drained soils that contain a buried soil and are formed in alluvium from mixed sources. Sailboat soils are generally located on natural levees of large rivers and sloughs, and on low flood plains of rivers and streams with slopes of zero to two percent. These soils have moderately slow permeability and slow runoff potential. Occasional flooding occurs in unprotected areas and rare flooding occurs in protected areas during prolonged periods of rainfall in the winter and early spring. Some areas are drained due to groundwater overdraft. In areas along major rivers, a water table occurs from December through April at depths of 36 to 60 inches due to seepage (City of Sacramento 2015:7-9).

Urban land. Urban land consists of areas covered by impervious surfaces such as roads, driveways, sidewalks, buildings, and parking lots. Soil material characteristics under the impervious surfaces are similar to those of nearby soil. Primary development limitations include depth to a seasonally high water table limiting shallow excavations (such as utility trenches and below-grade parking or storage levels) and the hazards associated with compression from loading. Other limitations include inadequate drainage for deep-rooted trees and shrubs. In summer, irrigation is needed to maintain landscaping (City of Sacramento 2018:4.6-3).

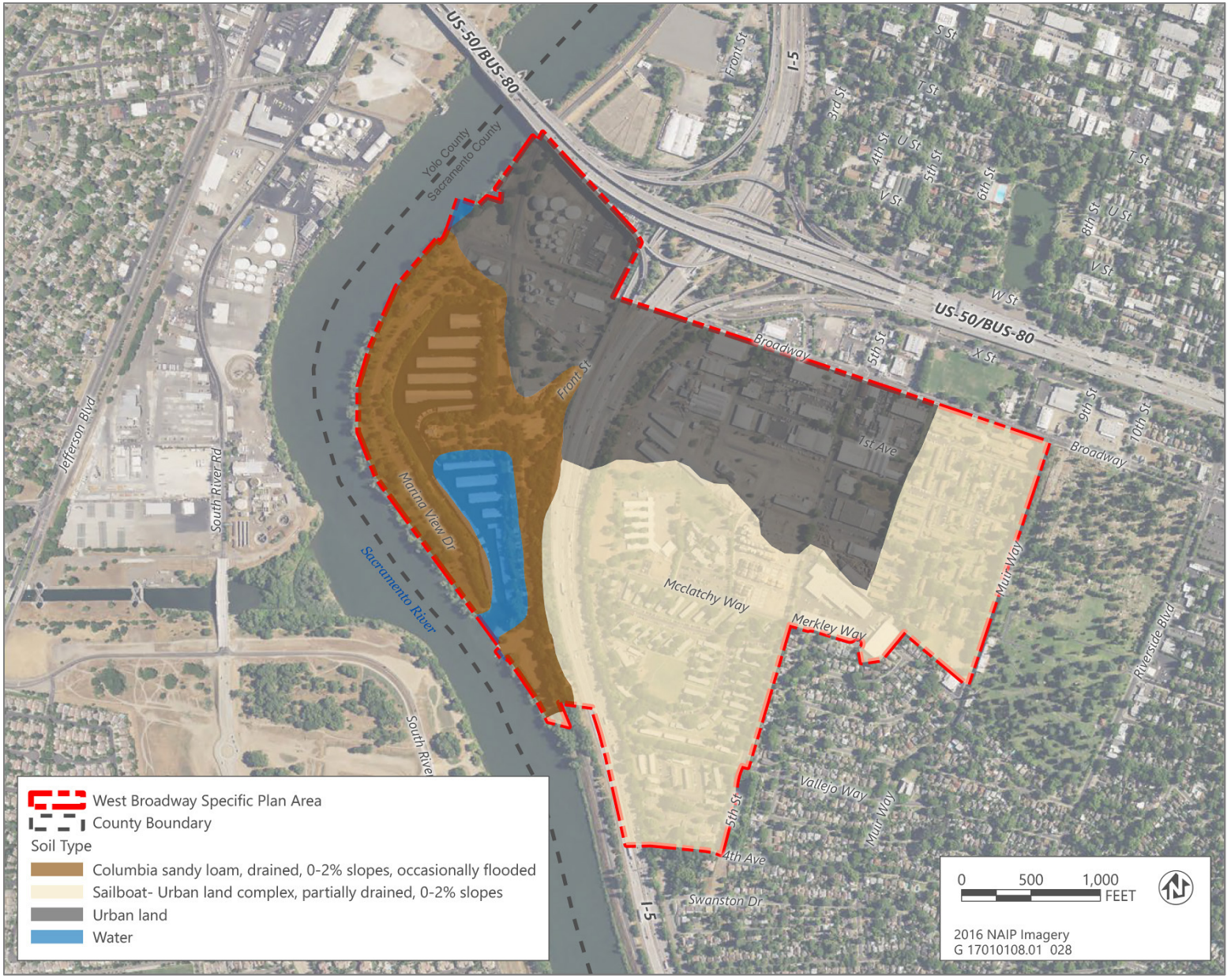
SUBSIDENCE

Land subsidence is the gradual settling or sinking of an area with very little horizontal motion. Subsidence can be induced by both natural and human phenomena. Natural phenomena include shifting of tectonic plates and dissolution of limestone resulting in sinkholes. Subsidence related to human activity includes pumping water, oil, and gas from underground reservoirs; collapse of underground mines; drainage of wetlands; and soil compaction. Areas underlain by alluvium soils are particularly susceptible to subsidence (City of Sacramento 2015:7-10).

EXPANSIVE SOILS

Expansive soils (also known as shrink-swell soils) are soils that contain expansive clay minerals that can absorb substantial amounts of water. The presence of these clay minerals makes the soil prone to large changes in volume in response to changes in water content. When an expansive soil becomes wet, water is absorbed and it increases in volume, and as the soil dries it contracts and decreases in volume. This repeated change in volume over time can produce enough force and stress on buildings, underground utilities, and other structures to damage foundations, pipes, and walls.

The quantity and type of expansive clay minerals affects the potential for the soil to expand or contract. Where native soils still exist, soil types may be expected to be similar to those of the nearby areas. Soil types identified within the Specific Plan Area range in shrink-swell potential from low to moderate.



Source: Data downloaded from California Department of Conservation in 2015 and Yolo County in 2018

Figure 4.6-2 Soils

MASS WASTING AND LANDSLIDES

Mass wasting refers to the collective group of processes that characterize down slope movement of rock and unconsolidated sediment overlying bedrock. These processes include landslides, slumps, rockfalls, flows, and creeps. Many factors contribute to the potential for mass wasting, including geologic conditions as well as the drainage, slope, and vegetation of the site. A landslide susceptibility database developed by CGS indicates that the Specific Plan Area is located in an area where land sliding is not expected due to the site being located on a topographically flat area on the valley floor within the floodplain of the Sacramento River. With such minor topographic relief, the probability of a landslide is considered nonexistent (CGS 2011).

MINERAL RESOURCES

The California Department of Conservation Division of Mines and Geology has developed guidelines for the classification and designation of mineral lands, known as Mineral Resource Zones (MRZs), and retains publications of the Surface Mining and Reclamation Act Mineral Land Classification Project dealing with mineral resources in California. The Specific Plan Area is located within a mapped MRZ and is designated MRZ-1, areas where adequate information indicates that no substantial mineral deposits are present, or where it is judged that little likelihood exists for their presence (California Department of Conservation Division of Mines and Geology 1999).

PALEONTOLOGICAL

The Society of Vertebrate Paleontology (SVP) has established guidelines for the identification, assessment, and mitigation of adverse impacts on nonrenewable paleontological resources (SVP 2010). Most practicing paleontologists in the United States adhere closely to the SVP's assessment, mitigation, and monitoring requirements as outlined in these guidelines, which were approved through a consensus of professional paleontologists and reflect the currently accepted standard practices. Many federal, state, county, and city agencies have either formally or informally adopted the SVP's standard guidelines for the mitigation of adverse construction-related impacts on paleontological resources. The SVP has helped define the value of paleontological resources and, in particular, indicates the following:

- Vertebrate fossils and fossiliferous (fossil-containing) deposits are considered significant nonrenewable paleontological resources and are afforded protection by federal, state, and local environmental laws and guidelines.
- A paleontological resource is considered to be older than recorded history, or 5,000 years before present, and is not to be confused with an archaeological resource.
- Invertebrate fossils are not significant paleontological resources unless they are present within an assemblage of vertebrate fossils or they provide undiscovered information on the origin and character of the plant species, past climatic conditions, or the age of the rock unit itself.
- A project paleontologist, special interest group, lead agency, or local government can designate certain plant or invertebrate fossils as significant.

In accordance with these principles, the SVP outlined criteria for screening the paleontological potential of rock units and established assessment and mitigation procedures tailored to such potential (SVP 2010). Table 4.6-3 lists the criteria for high-potential, undetermined, and low-potential rock units.

Table 4.6-3 Criteria for Determining Paleontological Potential

Paleontological Potential	Description
High	Geologic units from which vertebrate or significant invertebrate or plant fossils have been recovered. Only invertebrate fossils that provide new information on existing flora or fauna or on the age of a rock unit would be considered significant.
Undetermined	Geologic units for which little to no information is available.
Low	Geologic units that are not known to have produced a substantial body of significant paleontological material.

Source: SVP 2010

The City of Sacramento is not located in an area considered to be highly sensitive for paleontological resources present in fossil-bearing soils and rock formations. Most of the Specific Plan Area has been excavated and filled. Although not discussed in the SVP standards, artificial fills, surface soils, and high-grade metamorphic rocks do not contain paleontological resources. While such materials were originally derived from rocks, they have been altered, weathered, or reworked such that the discovery of intact fossils would be rare. Therefore, there is little potential for the Specific Plan Area to contain fossils or paleontological resources (City of Sacramento 2014:4.5-7).

4.6.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The examination of geology, soils, mineral resources, and paleontological resources is based on information obtained from reviews of available literature, including documents published by the City, the County of Sacramento, State and federal agencies, and published information dealing with geotechnical conditions in the Sacramento area; applicable elements from the County of Sacramento General Plan and the City of Sacramento 2035 General Plan; the City of Sacramento 2035 General Plan Background Report; and the City of Sacramento General Plan Master Environmental Impact Report.

THRESHOLDS OF SIGNIFICANCE

A geology and soils impact is considered significant if implementation of the WBSP would do any of the following:

- directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death through the rupture of a known earthquake fault, strong seismic shaking, seismic-related ground failure, soil liquefaction, or landslides;
- result in substantial soil erosion or the loss of topsoil;
- 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-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
- be located on expansive soil, creating substantial direct or indirect risks to life or property;

- 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;
- directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

ISSUES NOT DISCUSSED FURTHER

As noted above, the Specific Plan Area is located within an area that has been identified as MRZ-1, where available information indicates there is little or no likelihood for presence of substantial mineral resources. Therefore, the implementation of the WBSP would not adversely affect mineral resources, and this issue is not addressed further.

The Specific Plan Area is also served by the City's Combined Sewer System (CSS) (City of Sacramento 2015:4-2). All future development within the Specific Plan Area would be connected to the existing CSS, and the use of septic tanks or alternative waste water disposal systems would not be required. Therefore, the implementation of the WBSP would not result in any impact related to septic tanks or alternative waste water disposal systems, and this issue is not addressed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.6-1: Expose People or Structures to Potential Substantial Adverse Impacts Through the Rupture of a Known Earthquake Fault, Strong Seismic Shaking, Seismic-Related Ground Failure, Soil Liquefaction, or Landslides

Although the WBSP is not located near an active fault zone, seismic events located outside of the Sacramento region may result in seismic related risks at the Specific Plan Area including ground shaking, ground failure, and soil liquefaction. Building design standards would ensure impacts would be **less than significant**.

No known active faults or Alquist-Priolo Earthquake Fault Zones have been identified in Sacramento. Therefore, the potential of fault rupture is highly unlikely. Although the Specific Plan Area is not located near an active fault, seismic activities outside of the Sacramento region could result in seismic related hazards at the Specific Plan Area. Damage to buildings, roads, and infrastructure as well as liquefaction or settlement could occur as a result of seismic events.

The Specific Plan Area is located in an area of minor topographic relief and would not present a risk of landslide. The Specific Plan Area is underlain by artificial fill and alluvial deposits that, in their present states, could become unstable during seismic ground motion. To reduce the risks associated with seismically induced groundshaking, ground failure, or soil liquefaction it is necessary to take the location and type of subsurface materials into consideration when designing foundations and structures. 2035 General Plan Policy EC 1.1.1 requires that the City review and enforce all seismic and geologic safety standards. 2035 General Plan Policy EC 1.1.2 requires geotechnical investigations be conducted to determine the potential for ground rupture, ground-shaking, and liquefaction due to seismic events, as well as expansive soils and subsidence problems. Measures recommended by geotechnical investigations must be implemented to reduce risks associated with seismic groundshaking.

In addition, structural design is required to adhere to Chapters 16, 18, 33, and the appendix to Chapter 33 of the CBC. These standards would reduce the exposure to potentially damaging seismic vibrations through seismic resistant design, reduce the potential of liquefaction hazards through soil and foundation parameters and grading requirements. Roads and bridges, including bike and pedestrian overcrossings, would be required to comply with Caltrans design criteria, City Department of Transportation design standards, and/or other accepted non-building structure standards to reduce the risks associated with seismic groundshaking.

Although the WBSP would provide the potential to expose people or structures to risks associated with seismic events, compliance with state and local regulations, as described above, would reduce impacts to **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. However, similar to the proposed WBSP, all future development within the Specific Plan Area would be required to comply with applicable 2035 General Plan policies and CBC requirements. As a result, potential impacts related to risks to people or structures would also be **less than significant**, similar to the proposed WBSP.

Impact 4.6-2: Result in Substantial Soil Erosion

Construction activities pursuant to the WBSP, including excavation, grading, and trenching, would remove existing vegetation coverage and/or concrete surfaces and potentially expose soil to wind and rain resulting in soil erosion or loss of topsoil. Future development under the WBSP would comply with 2035 General Plan policies EC 1.1.2 and ER 1.1.7 by conducting a geotechnical investigation and implementing erosion control measures. In addition, compliance with the CBC and NPDES program would require implementation of BMPs and a SWPPP that reduce the potential for erosion and loss of top soil. Compliance with these policies and regulations would reduce the potential for soil erosion or loss of top soil. Impacts related to soil erosion would be **less than significant**.

Natural forces, both chemical and physical, are continually at work breaking down soils. Erosion poses two hazards: (1) it removes soils, thereby undermining roads and buildings and producing unstable slopes, and (2) it deposits eroded soil in reservoirs, lakes, drainage structures, and on roads as mudslides. Natural erosion is frequently accelerated by human activities such as site preparation for construction and alteration of topographic features.

In addition to the construction of new structures, redevelopment of the Specific Plan Area would result in soil disturbance activities including the construction of pedestrian and bike bridges across the Sacramento River, possible reconfiguration of the Miller Regional Park and Sacramento Marina, and redevelopment of existing oil tank sites. Such activities would include excavation and grading that present the potential for soil erosion and loss of topsoil by exposing bare and loosened soil to wind and rain.

The City's 2035 General Plan includes policies EC 1.1.2 and ER 1.1.7, which, respectively, require preparation of a geotechnical investigation to determine site-specific soil characteristics and development of erosion control measures that must be implemented during site development activities for all projects in the City. In addition, the project proponent would be required to comply with the City's

Grading Ordinance, Chapter 15.88 of the Sacramento Municipal Code, which requires preparation and approval of an Erosion and Sediment Control Plan before the start of grading activities. These requirements would control surface runoff and erosion, retain sediment on a particular site, and prevent pollution of site runoff.

The elevated risk of erosion associated with construction activity has long been acknowledged by regulators. Consequently, programs aimed at mitigating these effects are encoded in policies, laws, and regulations at various levels of government. Project proponents must comply with the CBC and federal NPDES program, which would require implementation of BMPs that reduce the potential for erosion and loss of top soil. Because construction of new land uses under the WBSP would likely disturb more than 1 acre of soil, each construction phase would be subject to the Statewide Construction General NPDES Permit from CVRWQCB. Coverage under this permit requires preparation and implementation of a SWPPP, as discussed in Section 4.9, “Hydrology and Water Quality.” SWPPPs would be required to identify temporary BMPs to prevent the transport of earthen materials from construction sites during periods of precipitation or runoff, and temporary BMPs would be required to prevent wind erosion of earthen materials.

Because development of an Erosion and Sediment Control Plan and compliance with the CBC and Statewide Construction General NPDES Permit, including implementation of BMPs and a SWPPP, would reduce the potential for construction to create substantial soil erosion, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. However, similar to the proposed WBSP, all future development within the Specific Plan Area would be required to comply with applicable 2035 General Plan policies and NPDES requirements, including preparation and implementation of a SWPPP. As a result, potential impacts related to the potential for substantial erosion under this option would also be **less than significant**, similar to the proposed WBSP.

Impact 4.6-3: Damage or Instability as a Result of Construction on Unstable Soils

The Specific Plan Area may include soil conditions that present the risk of lateral spreading, subsidence, liquefaction, or collapse. Construction of residential, office, and retail buildings, as well as, bridges and infrastructure proposed as part of the project may occur on expansive soils. Geotechnical investigations and soil condition reports required by the City and the CBC would identify unsuitable soil conditions and recommend measures that would eliminate inappropriate soil conditions and include structural design that would withstand the instability of expansive soils. Compliance with state and local policies and regulations, as well as conformance with the CBC, would ensure impacts would be **less than significant**.

The WBSP would include the construction of new structures to accommodate population growth within the Sacramento region. As concluded in the City of Sacramento 2035 General Plan Master Environmental Impact Report, these structures could be located on unstable soils and could present the potential for lateral spreading, subsidence, liquefaction, or collapse (City of Sacramento 2014:4.5-4, 4.5-5). The project proposes the development of a pedestrian/bicycle bridge as well as the previously proposed Broadway Bridge across the Sacramento River, located along the western boundary of the

Specific Plan Area. Construction activities at or near the Sacramento River could offer a potential opportunity for lateral spreading. The Specific Plan Area and surrounding area is topographically flat and therefore would not present the risk of on-site or off-site landslide (City of Sacramento 2014:4.5-1).

Due to the high groundwater levels within the Specific Plan Area, the construction of bridges and other structures may require dewatering for excavation and foundation support construction activities. If the dewatering system draws down the water table adjacent to the excavation, there is the possibility of undermining foundations on the adjacent site, causing cracking or collapse. To avoid these conditions, dewatering system design and excavation-wall support need to be designed appropriate to the soil conditions. The required site-specific evaluation of soil conditions must contain recommendations for these systems specific to the site and be incorporated into the construction design.

As part of the construction permitting process, the City requires completed reports of soil conditions at the specific construction sites to identify potentially unsuitable soil conditions including liquefaction, settlement, subsidence, lateral spreading, and collapse. The City requires that these evaluations be conducted by registered soil professionals, and measures to eliminate inappropriate soil conditions must be applied, depending on the soil conditions. The design of foundation and excavation-wall support must conform to the analysis and implementation criteria described in the CBC, Chapters 16, 18, 33, and the appendix to Chapter 33. In addition, implementation of Policies EC 1.1.1 and EC 1.1.2 would further ensure that the City review and enforce all applicable building codes and require site-specific geotechnical reports for all development projects, thereby reducing impacts on structures and people resulting from unstable geologic or soil conditions in the Specific Plan Area.

Because compliance with state and local policies and regulations, including the CBC and City 2035 General Plan policies, would ensure the project would not adversely affect the local geology or soil, or contribute to subsidence that could adversely affect nearby structures, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park, however development within the remainder of the Specific Plan Area would be the same as the proposed WBSP. Therefore, similar to the proposed WBSP, all future development within the Specific Plan Area would be required to comply with applicable 2035 General Plan policies and CBC requirements. As a result, potential impacts related to risks associated with development within unstable soil conditions would also be **less than significant**.

Impact 4.6-4: Locate Project Facilities on Expansive Soil, Creating Substantial Risks to Life or Property

Expansive soils may be present within the Specific Plan Area and may create risks to property. However, site-specific geotechnical investigations would be conducted, and structural design and construction would comply with state and local policies and regulations. Impacts related to expansive soil would be **less than significant**.

Expansive soils have high shrink/swell properties and expand when wet and shrink when dry. These soils have high clay content and can cause structural damage to foundations and roads that do not have proper structural engineering and are generally less suitable or desirable for development than

non-expansive soils (City of Sacramento 2015:7-10). Soil properties vary throughout the Specific Plan Area and should be evaluated to determine shrink/swell potential.

The City's 2035 General Plan policy EC 1.1.2 requires that project-specific geotechnical investigations be conducted by registered soil professionals to determine the potential for expansive soils and to recommend measures to reduce potential impacts. Additionally, structural design is required to adhere to Chapters 16, 18, 33, and the appendix to Chapter 33 of the CBC. Roads and bridges, including bike and pedestrian overcrossings, would be required to comply with Caltrans design criteria and City Department of Transportation design standards.

Compliance with the CBC and State and local policies and regulations would ensure appropriate design and proper foundation and excavation to minimize impacts related to expansive soil. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. However, similar to the proposed WBSP, all future development within the Specific Plan Area would be required to comply with applicable 2035 General Plan policies and CBC requirements. As a result, potential impacts related to risks associated with construction on expansive soils would also be **less than significant**.

Impact 4.6-5: Loss of a Unique Paleontological Resource or Geologic Feature

No known unique paleontological resource or site or unique geologic feature has been identified with the Specific Plan Area. The potential that construction of the project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature would be **less than significant**.

The City of Sacramento and surrounding area are not highly sensitive for paleontological resources although some discoveries have been made in the past. As with archaeological resources, the excavation and construction of the underground parking lots and the existing buildings has largely removed the historic-era ground surface and any potential traces of paleontological resources in the Specific Plan Area. Nonetheless, if such resources are present, they could be damaged or destroyed during project excavation, pile driving, utilities installation and/or related construction activities.

Compliance with 2035 General Plan Policy HCR 2.1.16 requires that proper protocols are adhered to if paleontological resources are discovered during excavation or construction. Specifically, these procedures include protocols and criteria for qualifications of personnel, and for survey, research, testing, training, monitoring, cessation and resumption of construction, identification, evaluation, and reporting, as well as compliance with recommendations to address any significant adverse effects where determined by the City to be feasible.

Because the policies and implementation programs contained within the City's 2035 General Plan would ensure that any discovered paleontological resources would be properly identified and treated, either through avoidance or relocation. As a result, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. However, similar to the proposed WBSP, all future development within the Specific Plan Area would be required to comply with applicable 2035 General Plan policies, including those related to actions to be taken in the result of an accidental discovery of paleontological resources. As a result and similar to the proposed WBSP, potential impacts related to risks associated with construction on expansive soils would also be **less than significant**.

CUMULATIVE IMPACTS

Impact 4.6-6: Potential for Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Geology and Soils

Implementation of the WBSP, in combination with other cumulative development in the area, would involve an intensification of development and redevelopment activities within and in the vicinity of the Specific Plan Area, which could contribute to cumulatively geology and soils impacts in the area. However, through adherence to applicable 2035 General Plan policies and other regulatory requirements, the contributions of individual projects, including development within the WBSP, within the cumulative context would be less than cumulatively considerable. Impacts would be **less than significant**.

The geographic context for the analysis of impacts resulting from geological hazards is site-specific rather than cumulative in nature, because each development site has unique geological and soils characteristics that would be subject to site development and construction standards imposed by the State and the City of Sacramento, as described in the above impacts. These standards are applied to all construction projects within the City where geological or soils conditions could pose a risk to buildings or public safety. As previously discussed, buildings and facilities for human occupancy in Sacramento are required to be sited and designed in accordance with appropriate geotechnical and seismic guidelines and recommendations consistent with the CBC, and the Sacramento Building Code. As a result of adherence to relevant plans, codes, and regulations with respect to project design and construction that require the prescribed levels of safety for the geotechnical and soils conditions at the site, the WBSP would not make considerable contributions to cumulative impacts, as defined in the CEQA Guidelines, Section 15065(a)(3).

The cumulative context for water quality related to soil erosion considers the geographic scope of the Basin Plan and, therefore, development within the larger Sacramento River watershed and the Sacramento–San Joaquin Delta (Delta). The Sacramento River watershed covers 27,000 square miles. The Delta extends for 24 miles from east to west and 48 miles from north to south where the Sacramento and San Joaquin rivers meet before discharging into the San Francisco Bay.

The alteration of topographic features can lead to increased erosion by creating unstable rock or soil surfaces, by changing the permeability or runoff characteristics of the soil, or by modifying or creating new pathways for drainage. Cumulative land development in the City of Sacramento, in addition to other development in the Sacramento River watershed and Delta, would result in an increase in such soil erosion processes if not properly mitigated. The proposed WBSP would cause the modification of site conditions to accommodate development and to provide a stable and safe environment. During the construction phase, this modification could expose soil to erosion by wind or water.

To reduce the potential for cumulative erosion impacts, all projects in the watershed are required to be developed in conformance with the provisions of applicable federal, state, county, and/or city laws and ordinances. Compliance with the City of Sacramento's Grading Ordinance, Chapter 15.88 of the Sacramento Municipal Code, requires that before the commencement of grading an Erosion and Sediment Control Plan be prepared for each project within the City. An erosion control professional, landscape architect, or civil engineer specializing in erosion control must prepare the Erosion and Sediment Control Plan and during the installation of erosion and sediment control measures be on the Specific Plan Area to supervise implementation of the installation and maintenance of such facilities throughout the site clearing, grading and construction periods (City of Sacramento 2014:4.5-6).

In addition, 2035 General Plan policy EC 1.1.2 requires that projects within the City prepare a geotechnical investigation to determine site-specific seismic and soil characteristics and recommend appropriate measures to minimize the potential for unstable soil conditions. Further, 2035 General Plan policy ER 1.1.7 requires that necessary erosion control measures are used during site development activities for all projects in the City (City of Sacramento 2014:4.5-6). The individual contribution of development under the project to cumulative erosion impacts in the watershed would not be considerable, because the project would also be subject to State and local regulations as described under Impact 4.6-2. Therefore, cumulative geology and soils impacts would be less than cumulatively considerable and **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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4.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

This section presents a summary of regulations applicable to greenhouse gas (GHG) emissions; a summary of climate change science and GHG sources in California; quantification of project-generated GHGs and discussion about their contribution to global climate change; and analysis of the project's resiliency to climate change-related risks. In addition, mitigation measures are recommended to reduce the West Broadway Specific Plan's (WBSP) contribution to climate change.

No comments related to GHG and climate change were received in response to the Notice of Preparation for this EIR.

4.7.1 Regulatory Setting

FEDERAL

Supreme Court Ruling

In *Massachusetts et al. v. Environmental Protection Agency et al.*, 549 U.S. 497 (2007), the Supreme Court of the United States ruled that carbon dioxide (CO_2) is an air pollutant as defined under the federal Clean Air Act and that the U.S. Environmental Protection Agency (EPA) has the authority to regulate GHG emissions.

In 2010, EPA started to address GHG emissions from stationary sources through its New Source Review permitting program, including operating permits for "major sources" issued under Title V of the federal Clean Air Act.

Regulations for Greenhouse Gas Emissions from Passenger Cars and Trucks and Corporate Average Fuel Economy Standards

In October 2012, EPA and the National Highway Traffic Safety Administration, on behalf of the U.S. Department of Transportation, issued final rules to further reduce GHG emissions and improve corporate average fuel economy standards for light-duty vehicles for model years 2017 and beyond (77 Federal Register [FR] 62624). These rules would increase fuel economy to the equivalent of 54.5 miles per gallon, limiting vehicle emissions to 163 grams of CO_2 per mile for the fleet of cars and light-duty trucks by model year 2025 (77 FR 62630). However, on April 2, 2018, the EPA administrator announced a final determination that the current standards are not appropriate and should be revised. It is not yet known what revisions will be adopted or when they will be implemented (EPA 2018).

STATE

Plans, policies, regulations, and laws established by the state agencies are generally presented in the order they were established.

Statewide GHG Emission Targets and the Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the state government for approximately two decades (State of California 2018). GHG emission targets established by the state legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). Executive Order S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050.

Executive Order B-55-18 calls for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter. These targets are in line with the scientifically established levels needed in the United States to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (United Nations 2015:3).

California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by the California Air Resources Board (CARB), outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and "substantially advance toward our 2050 climate goals" (CARB 2017:1, 3, 5, 20, 25–26). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste). CARB and other state agencies are currently developing a Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal of Executive Order B-55-18.

The state has also passed more detailed legislation addressing GHG emissions associated with industrial sources, transportation, electricity generation, and energy consumption, as summarized below.

Cap-and-Trade Program

CARB administers the state's cap-and-trade program, which covers GHG emission sources that emit more than 25,000 metric tons of carbon dioxide equivalent per year (MT CO_2e/year), such as refineries, power plants, and industrial facilities. This market-based approach to reducing GHG emissions provides economic incentives for achieving GHG emission reductions.

Transportation-Related Standards and Regulations

As part of its Advanced Clean Cars program, CARB established more stringent GHG emission standards and fuel efficiency standards for fossil fuel–powered on-road vehicles. In addition, the program's zero-emission vehicle (ZEV) regulation requires battery, fuel cell, and plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025 (CARB 2016a:15). By 2025, when the rules will be fully implemented, GHG emissions from the statewide fleet of new cars and light-duty trucks will be reduced by 34 percent and cars will emit 75 percent less smog-forming pollution than the statewide fleet in 2016 (CARB 2016b:1).

Executive Order B-48-18, signed into law in January 2018, requires all state entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, as well as 200 hydrogen fueling stations and 250,000 electric vehicle–charging stations installed by 2025. It specifies that 10,000 of these charging stations must be direct-current fast chargers.

CARB adopted the Low Carbon Fuel Standard (LCFS) in 2007 to reduce the carbon intensity of California's transportation fuels. The LCFS applies to fuels used by on-road motor vehicles and by off-road vehicles, including construction equipment (Wade, pers. comm., 2017).

In addition to regulations that address tailpipe emissions and transportation fuels, the state legislature has passed regulations to address the amount of driving by on-road vehicles. Since passage of SB 375 in 2008, CARB requires metropolitan planning organizations (MPOs) to adopt plans showing reductions in GHG emissions from passenger cars and light trucks in their respective regions for 2020 and 2035 (CARB 2018a:1). These plans link land use and housing allocation to transportation planning and related mobile-source emissions. The Sacramento Area Council of Governments (SACOG) serves as the MPO

for Sacramento, Placer, El Dorado, Yuba, Sutter, and Yolo Counties, excluding those lands located in the Tahoe Basin. Under SB 375, SACOG adopted its most recent *Metropolitan Transportation Plan/Sustainable Communities Strategy 2035* (MTP/SCS) in 2016. SACOG was tasked by CARB to achieve a 7-percent per capita reduction compared to 2012 emissions by 2020 and a 16-percent per capita reduction by 2035, both of which CARB confirmed the region would achieve by implementing the MTP/SCS (SACOG 2016:172; CARB 2018a:1). In March 2018, CARB promulgated revised targets tasking SACOG to achieve a 7-percent and a 19-percent per capita reduction by 2020 and 2035, respectively (CARB 2018a:1). SACOG adopted their 2020 MTP/SCS on November 18, 2019.

SB 743 of 2013 required that the Governor's Office of Planning and Research (OPR) proposed changes to the State CEQA Guidelines to address transportation impacts in transit priority areas and other areas of the State. In response, Section 15064.3 was added to CEQA in December 2018, requiring that transportation impacts no longer consider congestion but instead focus on the impacts of vehicle miles traveled (VMT). Agencies have until July 1, 2020 to implement these changes, but can also choose to implement these changes immediately. In support of these changes, OPR published its *Technical Advisory on Evaluating Transportation Impacts in CEQA*, which recommends that the transportation impact of a project be based on whether the project would generate a level of VMT per capita (or VMT per employee or some other metric) that is 15 percent lower than that of existing development in the region (OPR 2017:12–13), or that a different threshold is used based on substantial evidence. OPR's technical advisory explains that this criterion is consistent with Section 21099 of the California Public Resources Code, which states that the criteria for determining significance must "promote the reduction in greenhouse gas emissions" (OPR 2017:18). This metric is intended to replace the use of delay and level of service to measure transportation-related impacts. More detail about SB 743 is provided in the "Regulatory Setting" section of Section 4.12, "Transportation and Circulation"

Legislation Associated with Electricity Generation

The state has passed legislation requiring the increasing use of renewables to produce electricity for consumers. California utilities are required to generate 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011); 52 percent by 2027 (SB 100 of 2018); 60 percent by 2030 (also SB 100 of 2018); and 100 percent by 2045 (also SB 100 of 2018).

Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the state's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Commission (CEC) updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions. The current California Energy Code (2016) is scheduled to be replaced by the 2019 standards on January 1, 2020. The 2019 California Energy Code will require builders to use more energy-efficient building technologies for compliance with increased restrictions on allowable energy use. Additionally, new residential units will be required to include solar panels, sized to offset the estimated electrical requirements of each unit (CCR, Title 24, Part 6, Section 150.1[c]14). CEC estimates that the combination of required energy-efficiency features and mandatory solar panels in the 2019 California Energy Code will result in new residential buildings that use 53 percent less energy than those designed to meet the 2016 California Energy Code. The CEC also estimates that the 2019 California Energy Code will result in new commercial buildings that use 30 percent less energy than those designed to meet the 2016 standards, primarily through the transition to high-efficacy lighting (CEC 2018a).

LOCAL

City of Sacramento 2035 General Plan

The City of Sacramento 2035 General Plan includes the following policies related to reducing GHG emissions in Sacramento (City of Sacramento 2015).

- **Policy ER 6.1.5:** The City shall reduce community GHG emissions by 15 percent below 2005 baseline levels by 2020, and strive to reduce community emissions by 49 percent and 83 percent by 2035 and 2050, respectively.
- **Policy ER 6.1.7:** The City shall reduce GHG emissions from new development by discouraging auto-dependent sprawl and dependence on the private automobile; promoting water conservation and recycling; promoting development that is compact, mixed use, pedestrian friendly, and transit oriented; promoting energy-efficient building design and site planning; improving the job/housing ratio in each community; and other methods of reducing emissions.
- **Policy LU 2.6.6: Efficiency through Density.** The City shall support an overall increase in average residential densities throughout the City consistent with the adopted General Plan Land Use & Urban Form Diagram, as new housing types shift from lower-density, large lot developments to higher density, small lot and multifamily developments as a means to increase energy efficiency, conserve water, and reduce waste.
- **Policy M 2.1.1: Pedestrian Master Plan.** The City shall maintain and implement a Pedestrian Master Plan that carries out the goals and policies of the General Plan. All new development shall be consistent with the applicable provisions of the Pedestrian Master Plan.
- **Policy M 4.3.2: Traffic Calming Measures.** Consistent with the Roadway Network and Street Typology policies in this General Plan and Goal M 4.3, the City shall use traffic calming measures to reduce vehicle speeds and volumes while also encouraging walking and bicycling. Specific measures may include, but are not limited to, marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts, traffic circles, on-street parking, planter strips with street trees, chicanes/chokers, and geometric design features.
- **Policy M 4.4.4: Traffic Signal Management.** To improve traffic flow and associated fuel economy of vehicles traveling on city streets, the City shall synchronize the remaining estimated 50 percent of the City's eligible traffic signals by 2035, while ensuring that signal timing considers safe and efficient travel for all modes.
- **Policy U 2.1.10: Water Conservation Standards.** The City shall achieve a 20 percent reduction in per-capita water use by 2020 consistent with the State's 20x2020 Water Conservation Plan (California Water Resources Control Board 2010).

Sacramento Climate Action Plan

The Sacramento Climate Action Plan (CAP) was adopted on February 14, 2012 by the Sacramento City Council and was incorporated into the 2035 General Plan. The CAP includes GHG emission targets, strategies, and implementation measures to help the city reach these targets. Reduction strategies address GHG emissions associated with transportation and land use; energy consumption; water use; waste management and recycling; agriculture; and open space. The City's goals related to transportation and energy use are described below.

- Improve accessibility and system connectivity by removing physical and operational barriers to safe travel.
- Reduce reliance on the private automobile.
- Use emerging transportation technologies and services to increase transportation system efficiency.
- Design, construct, and maintain a universally accessible, safe, convenient, integrated and well-connected pedestrian system that promotes walking.
- Create and maintain a safe, comprehensive, and integrated transit system as an essential component of a multimodal transportation system.
- Support the development and provision of privately funded and/or privately-operated transit services that support citywide and regional goals by reducing single-occupant vehicle (SOV) trips, vehicle miles traveled and GHG emissions.
- The City and other agencies with jurisdiction over roadways within City limits shall plan, design, operate and maintain all streets and roadways to accommodate and promote safe and convenient travel for all users—pedestrians, bicyclists, transit riders, and persons of all abilities, as well as freight and motor vehicle drivers.
- Enhance the quality of life within existing neighborhoods through the use of neighborhood traffic management and traffic calming techniques, while recognizing the City's desire to provide a grid system that creates a high level of connectivity.
- Maintain an interconnected system of streets that allows travel on multiple routes by multiple modes, balancing access, mobility and place-making functions with sensitivity to the existing and planned land use context of each corridor and major street segment.
- Create and maintain a safe, comprehensive, and integrated bicycle system and set of support facilities throughout the city that encourage bicycling that is accessible to all. Provide bicycle facilities, programs and services and implement other transportation and land use policies as necessary to achieve the City's bicycle mode share goal as documented in the Bicycle Master Plan.
- Provide and manage parking such that it balances the citywide goal of economic development, livable neighborhoods, sustainability, and public safety with the compact multi-modal urban environment prescribed by the General Plan.
- Provide for the energy needs of the city and decrease dependence on nonrenewable energy sources through energy conservation, efficiency, and renewable resource strategies.

City of Sacramento CAP Consistency Review Checklist

As part of the City of Sacramento CAP, the City has adopted the CAP Consistency Review Checklist (CAP Checklist) to ensure new projects remain consistent with the goals set forth in the City's CAP. Because the CAP established GHG reduction targets that are consistent with the overall State GHG emissions targets, individual development projects occurring within the City of Sacramento that are consistent with the CAP goals and policies, shown by completing the CAP Checklist, would also be consistent with State GHG reduction targets and GHG reduction planning efforts. The CAP Checklist includes a series of required project design features that must be incorporated into projects to remain consistent with the City's CAP.

4.7.2 Environmental Setting

THE PHYSICAL SCIENTIFIC BASIS OF GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected toward space. The absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. The earth has a much lower temperature than the sun; therefore, the earth emits lower frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are CO_2, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forcing (IPCC 2014:5).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any GHG molecule depends on multiple variables and cannot be determined with any certainty, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO_2 emissions, approximately 55 percent are estimated to be sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remain stored in the atmosphere (IPCC 2013:467).

The quantity of GHGs in the atmosphere responsible for climate change is not precisely known, but it is enormous. No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

GREENHOUSE GAS EMISSION SOURCES

As discussed previously, GHG emissions are attributable in large part to human activities. The total GHG inventory for California in 2016 was 429 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) (CARB 2018b). This is less than the 2020 target of 431 $MMTCO_2e$ (CARB 2018c:1). Table 4.7-1 summarizes the statewide GHG inventory for California.

Table 4.7-1 Statewide GHG Emissions by Economic Sector

Sector	Percent
Transportation	41
Industrial	23
Electricity generation (in state)	10
Electricity generation (imports)	6
Agriculture	8
Residential	7
Commercial	5
Not specified	<1

Source: CARB 2018b

As shown in Table 4.7-1, transportation, industry, and electricity generation are the largest GHG emission sectors.

Emissions of CO_2 are byproducts of fossil fuel combustion. Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Nitrous oxide is also largely attributable to agricultural practices and soil management. CO_2 sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution (CO_2 dissolving into the water), respectively, two of the most common processes for removing CO_2 from the atmosphere.

A GHG inventory for the City of Sacramento and summarized in Table 4.7-2.

Table 4.7-2 City of Sacramento Greenhouse Gas Emissions Inventory for 2005 and Building-as-Usual Forecast Years (MTCO2e)

Emissions Sector	2005	2020	2030	2040
Residential Energy Use	748,792	993,900	1,157,307	1,484,125
Commercial/Industrial Energy Use	979,777	1,243,593	1,419,470	1,771,224
Industrial Specific	28,656	32,789	35,544	41,054
On-Road Transportation	2,013,962	2,193,916	2,313,886	2,553,825
Off-Road Transportation	192,768	244,673	279,276	348,483
Solid Waste	241,862	285,143	313,248	378,605
Water Consumption	12,810	15,757	17,928	21,724
Wastewater Treatment	57,380	70,579	80,306	97,307
Agriculture	2,054	2,087	2,198	2,596
Total	**4,443,977**	**5,286,520**	**5,851,370**	**6,980,309**

Notes: Totals may not equal the sum of the numbers because of independent rounding.

$MTCO_2e$ = metric tons of carbon dioxide equivalent.

Source: City of Sacramento 2014

EFFECTS OF CLIMATE CHANGE ON THE ENVIRONMENT

According to the Intergovernmental Panel on Climate Change, which was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme, global average temperature will increase by 3.7 to 4.8 degrees Celsius (°C) (6.7 to 8.6 degrees Fahrenheit [°F]) by the end of the century unless additional efforts to reduce GHG emissions are made (IPCC 2014:10). According to CEC, temperatures in California will warm by approximately 2.7°F above 2000 averages by 2050 and by 4.1°F to 8.6°F by 2100, depending on emission levels (CEC 2012:2).

Other environmental resources could be indirectly affected by the accumulation of GHG emissions and the resulting rise in global average temperature. In recent years, California has been marked by extreme weather and its effects. According to CNRA's *Safeguarding California Plan: 2018 Update*, California experienced the driest 4-year statewide precipitation on record from 2012 through 2015; the warmest years on average in 2014, 2015, and 2016; and the smallest and second smallest Sierra snowpack on record in 2015 and 2014 (CNRA 2018:55). In contrast, the northern Sierra Nevada experienced its wettest year on record during the 2016-2017 water year (CNRA 2018:64). The changes in precipitation exacerbate wildfires throughout California, increasing their frequency, size, and devastation. As temperatures increase, the amount of precipitation falling as rain rather than snow also increases, which could lead to increased flooding because water that would normally be held in the snowpack of the Sierra Nevada and Cascade Range until spring would flow into the Central Valley during winter rainstorm events. This scenario would place more pressure on California's levee/flood control system (CNRA 2018:190–192). Furthermore, in the extreme scenario involving the rapid loss of the Antarctic ice sheet, the sea level along California's coastline could rise up to 10 feet by 2100, which is approximately 30–40 times faster than the sea-level rise experienced over the last century (CNRA 2017:102). Changes in temperature, precipitation patterns, extreme weather events, wildfires, and sea-level rise have the potential to threaten transportation and energy infrastructure and crop production (CNRA 2018:64, 116–117, 127).

Cal-Adapt is a climate change scenario planning tool developed by CEC that downscales global climate model data to local and regional resolution under two emissions scenarios. The Representative Concentration Pathway (RCP) 8.5 scenario represents a business-as-usual future emissions scenario, and the RCP 4.5 scenario represents a future with reduced GHG emissions. According to Cal-Adapt, annual average temperatures in the City of Sacramento are projected to rise by 5.6°F to 8.4°F by 2099, with the low and high ends of the range reflecting the lower and higher emissions increase scenarios (CEC 2018b).

The City of Sacramento experienced an annual average high temperature of 74.1°F between 1950 and 2005. Under the RCP 4.5 scenario, the City's annual average high temperature is projected to increase by 4.2°F to 78.3°F by 2050 and increase an additional 1.4°F to 79.7°F by 2099 (CEC 2018b). Under the RCP 8.5 scenario, the City's annual average high temperature is projected to increase by 5.2°F to 79.3°F by 2050 and increase an additional 3.7°F to 82.5°F by 2099 (CEC 2018b).

The American River Basin, the Integrated Regional Water Management Region which includes the City of Sacramento, experienced an average precipitation of 20.6 inches per year between 1950 and 2005. Under the RCP 4.5 scenario, the American River Basin is projected to experience an increase of 2.2 inches to 22.8 inches per year by 2050 and decrease to 22.7 inches per year by 2099 (CEC 2018b). Under the RCP 8.5 scenario, the American River Basin is projected to experience an increase of 2.3 inches to 22.9 inches per year by 2050 and increase to 24.6 inches per year by 2099 (CEC 2018b).

4.7.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Construction-Related Greenhouse Gas Emissions

Short-term construction-generated GHG emissions were calculated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2 (CAPCOA 2016), as recommended by the Sacramento Air Quality Management District (SMAQMD) and other air districts in California. Modeling was based on WBSP-specific information (e.g., total acres by land uses type, area to be graded, area to be paved, and buildout timeline) where available; assumptions based on typical construction activities; and default values in CalEEMod that are based on the location and land use types. Construction activities associated with implementation of the WBSP were assumed to begin in 2020 and end in 2035. Construction modeling assumes demolition of 228,750 square feet (sf) of industrial space. It is assumed that demolition of this industrial space would be demolished incrementally between 2020 and 2035. For further details regarding modeling inputs and assumptions refer to Appendix C.

Operational Greenhouse Gas Emissions

Operation-related emissions of GHGs were estimated for the following sources: area sources (e.g., landscape maintenance equipment), energy use (i.e., electricity and natural gas consumption), water use, solid waste generated, and mobile sources. Operation-related mobile-source GHG emissions were modeled based on the estimated level of VMT by land use types and intensities that may occur with implementation of the WBSP. VMT estimates were derived from data generated during the traffic impact analysis conducted for the WBSP (see Section 4.12, “Transportation and Circulation”). Mobile source emissions were calculated using the WBSP’s annual VMT estimate and vehicle emissions factors specific to Sacramento County for the year 2035, generated with CARB’s EMFAC 2014 emission factors, which are included in the CalEEMod software.

Indirect emissions associated with electricity and natural gas consumption were estimated using GHG emissions factors for the Sacramento Municipal Utility District. Because implementation of the WBSP would not begin until 2020, the electricity and natural gas usage rates for both residential and nonresidential land use types were adjusted to account for anticipated energy efficiency improvements included in the 2019 Title 24 energy standards which will go into effect on January 1, 2020.

The emissions estimate for existing conditions was conducted using existing condition land use assumptions included in Chapter 2, “Project Description.” Existing VMT estimates for the Specific Plan Area were taken from Section 4.12, “Transportation and Circulation,” based on trip generation uses for current development within the Specific Plan Area. Existing conditions emissions were then estimated using CalEEMod software for the baseline year of 2019. The net increase in GHG emissions associated with implementation of the WBSP was then calculated by subtracting the existing emissions from the gross emissions associated with plan implementation.

THRESHOLDS OF SIGNIFICANCE

Global climate change is inherently a cumulative issue because the GHG emissions of individual projects cannot be shown to have any material effect on global climate. Thus, the WBSP’s impact on climate change is addressed only as a cumulative impact.

State CEQA Guidelines Section 15064 and relevant portions of Appendix G recommend that a lead agency consider a project's consistency with relevant, adopted plans and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. Under Appendix G of the State CEQA Guidelines, implementing a project would result in a cumulatively considerable contribution to climate change if it would:

- generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or
- conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?

Further, pursuant to State CEQA Guidelines Section 15183.5, lead agencies may:

> choose to analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions or similar document. A plan to reduce greenhouse gas emissions may be used in a cumulative impacts analysis as set forth below. Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.

Pursuant to section 15183.5 of the State CEQA Guidelines the Sacramento CAP qualifies as a plan for the reduction of GHG emissions for use in cumulative impact analysis pertaining to development projects. Thus, for purposes of this EIR, impacts to global climate change would be considered significant if the proposed project would conflict with the City's CAP. The WBSP was compared against the City CAP Checklist to ensure that all applicable design features (e.g., bikeway infrastructure, renewable energy) are included so that development under the WBSP remains consistent with the goals set forth in the City's CAP. Additionally and based on the anticipated buildout of the Specific Plan Area under the WBSP, consistency with the State's 2017 Scoping Plan was also used as a threshold of significance.

CARB's 2017 Scoping Plan demonstrates how the State will achieve its emissions reduction target set forth SB 32 (i.e., reducing statewide emissions to 40 percent below 1990 levels by 2030) and makes progress towards the State's long-term reduction target of reducing statewide emissions to 80 percent below 1990 levels by 2050 (Executive Order S-3-05) through GHG reductions from various sectors of the State's economy and, as a result, mitigating the worst impacts of climate change. The scoping plan suggests several approaches for showing a project's consistency with State targets, including showing consistency with an adopted applicable GHG reduction plan or adopted threshold of significance. Given the longer timeline for the implementation of the WBSP (approximately 15 years), no significance thresholds applicable to the WBSP have been established for this time horizon. However, the City is currently in the process of updating its 2035 General Plan and CAP, and any future development that may occur within the Specific Plan Area would be subject to the City's adopted CAP, which will soon be updated to reflect 2035 targets, and the requirements related to future development contained therein that would make progress towards the State's reduction targets.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.7-1: Generate GHG Emissions that May Have a Significant Impact on the Environment or Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of GHGs

Implementation of the WBSP would result in a net increase in GHG emissions. GHG emissions would be generated during the construction of individual development projects built in the Specific Plan Area. GHG emissions would also be generated during normal operations of individual development projects within the Specific Plan Area, however development would occur in a manner consistent with the City's Climate Action Plan (CAP). In addition, the WBSP includes a number of design features that will help reduce GHG emissions associated with implementation of the plan. Additionally, the City is currently developing an update to their CAP document, which will ensure that new development projects built as part of the plan include a set of measures that would reduce GHG emissions in line with the City and State's long-term GHG reduction target for 2030. Therefore, GHG emissions generated during construction and operations of the individual development projects within the Specific Plan Area would not result in a considerable contribution to global climate change and associated significant impacts on the environment. Therefore, this impact would be **less than significant**.

Implementation of the WBSP would result in the development of various new land uses in the Specific Plan Area, resulting in an overall net increase in population, housing units, and commercial square footage compared to baseline conditions. Table 2-2 in Chapter 2, "Project Description" provides a full list of the land use increases that are anticipated as a result of plan implementation. Construction and operational emissions are shown below.

CAP Checklist Consistency

The WBSP includes a set of policies and design features which align with and support the goals and policies in the City's CAP and CAP Consistency Checklist. As discussed in the Regulatory Settings of this chapter, the City has developed the CAP Checklist to ensure that new development projects remain consistent with the goals and policies in the CAP and help to reduce Citywide GHG emissions in line with the City's GHG reduction targets. The following discussion serves as a qualitative analysis of the WBSP's consistency with the City's CAP Checklist and addresses each CAP Checklist question individually.

1. Is the project consistent with the City's over-all goals for land use and urban form, allowable floor area ratio (FAR) and/or density standards in the City's 2035 General Plan?

The WBSP includes proposed changes to the existing land use designations as well as changes to the FAR and density standards of existing land uses in the Specific Plan Area. The land use changes anticipated as part of the WBSP can be seen in Table 2-2 of Chapter 2, "Project Description" of this EIR. In general, land use changes would include the conversion of industrial land uses to residential, commercial, and mixed-use land uses as part of the WBSP's implementation. However, the land uses changes reflect refinements of the existing land use designations, projections of growth, and the general land use form of the downtown and areas adjacent to downtown within the City of Sacramento identified in the City's current 2035 General Plan and, therefore, would be consistent with the growth projections and assumptions used to develop the GHG emissions inventory and projections in the CAP. The WBSP would be consistent with this CAP Checklist question.

2. Would the project incorporate traffic calming measures?

The WBSP includes a set of policies and goals specifically addressing traffic calming measures as part of new development in the Specific Plan Area. Because the WBSP is a specific plan document, the site-specific locations for certain types of traffic calming measures cannot be determined at this time.

However, the WBSP includes policies and guidelines for the incorporation of traffic calming measures for future development within the Specific Plan Area. Listed below are policies and guidelines include in the WBSP related to the development of traffic calming measures within the Specific Plan Area.

- **7.2 Circulation Goals and Policies**
  - **Safe and Accessible Streets:** Policy M-2.2: Design new residential roadways with clearly marked crosswalks, streetlights, and traffic calming where vehicular priority can be reduced and bike and pedestrian priority emphasized, minimizing traffic impacts into Specific Plan and existing residential neighborhood areas.
- **Development Standards and Design Guidelines**
  - **9.2 Urban Design Framework:** A Traditional Street Grid and Block Pattern. A traditional street grid and block pattern will be created by extending the Central City grid into the Specific Plan Area, which supports walkable neighborhood blocks and introduces the connective tissue to support safe and efficient vehicular, bike, and pedestrian access and movement. To discourage cut-through traffic through the center of residential areas, traffic calming devices, such as traffic circles or other approaches should be implemented and the preferred routes for vehicular circulation highlighted with directional signs. On-street parking, parking sited behind buildings, and screening of parking areas will promote a pedestrian-oriented neighborhood environment.
  - **9.5.1 Neighborhood Form Guideline: Complete Streets and Trail Network:**
    - Mid-block east-west alleys are encouraged for property access on blocks served by the commercial or mixed-use streets, including Broadway, First Avenue, and Fifth Street. Alleys provide a safe alternative for parking and service access for commercial, high-density multi-family, or mixed-use developments on higher volume roads and should also support adjacent uses.
    - Sidewalk extensions and landscape bulbouts should be provided at crosswalks, where parking is provided for traffic calming and aesthetic character.
    - At intersections and mid-block crossings on Broadway, Fifth Street, and other high volume roadways, pedestrian refuge islands should be provided. If a midblock crossing is provided on Broadway connecting Alder Grove to O'Neil Field, it should include raised walkways.

The WBSP includes specific policies and guidelines for future individual development projects within the Specific Plan Area to include appropriate traffic calming measures in the Specific Plan Area. As a result, the WBSP would be consistent with this CAP Checklist question.

3. Would the project incorporate pedestrian facilities and connections to public transportation consistent with the City's Pedestrian Master Plan?

The WBSP includes goals, policies, and design guidelines specifically focused on pedestrian infrastructure in the Specific Plan Area. Chapter 7, "Circulation and Mobility," in the WBSP includes discussion of the City's Pedestrian Master Plan and streets in the Specific Plan Area designated for improvements in the Pedestrian Master Plan. The WBSP also discusses how these improvements have been integrated into the design guidelines within the WBSP. Figure 7-25 in the WBSP illustrates the planned pedestrian circulation improvements in the Specific Plan Area including existing sidewalks as well as and planned sidewalks and greenways. The following list highlights portions of the WBSP which include policies and guidelines for the development of pedestrian infrastructure as part of its implementation.

- **7.2 Circulation Goals and Policies**
  - Safe and Accessible Streets: M-1.5: As new development occurs, provide enhanced bicycle and pedestrian improvements along 5th Street and Muir Way, including wide sidewalks and dedicated space for bike share and bicycle parking.
- **7.4 Pedestrian Circulation System**
  - **7.4.2 Planned Improvements:** An interconnected pedestrian network is planned for the Specific Plan Area created through new greenways within the open space network and walkways that will be provided along the improved street grid within the Specific Plan Area. This pedestrian network allows residents to conveniently walk from their homes to open space amenities, schools, transit, retail, and other neighborhood services in the local vicinity. The City's Pedestrian Master Plan also identifies 5th Street and Muir Way to be designed as enhanced pedestrian facilities. Opportunities to widen the sidewalks and provide additional bike and pedestrian amenities on these streets is recommended. The bike/pedestrian paseo created on the north end of Muir Way provides an opportunity for a shaded open space or plaza space with a bike and pedestrian gateway into the neighborhood.
- **9.3 Sustainability: Sustainable Design Principles**
  - **Walkable, Pedestrian-Friendly Neighborhood Design**
    - Wide sidewalks and active street uses
    - Pedestrian-scaled architecture and pedestrian amenities
    - Continuation, additions to the urban canopy
- **9.5.1 Neighborhood Form Guideline: Complete Streets and Trail Network:**
  - Comfortable sidewalks shall line both sides of every public street. To achieve this consistently, sidewalk easements may be required into private property adjacent to a right-of-way.
  - All streets should provide sidewalks sized to support safe pedestrian access and to serve the intended use. For example, wider sidewalks of a minimum of 6 feet is encouraged on McClatchy Way, adjacent to the existing school facilities. Wider sidewalks should also be provided adjacent to commercial and mixed-use development.
- **9.6 Residential Design**
  - **Common and Private Open Space**
    - On-site pedestrian circulation should connect all units to common open space and neighborhood sidewalks and paths.
- **Section 9 Development Standards and Design Guidelines**
  - This section of the WBSP provides specific design guidelines for sidewalks, landscaping, and public amenities for commercial and mixed-use zones in the Specific Plan Area.

The WBSP, as proposed, takes into consideration the guidance and planned improvements of the City's Pedestrian Master Plan and works to support and enhance the pedestrian circulation in the Specific Plan Area. As a result, the WBSP would be consistent with this CAP Checklist question.

4. Would the project incorporate bicycle facilities consistent with the City's Bikeway Master Plan, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen?

The WBSP includes a set of policies and guidelines which serve to support the development of a bicycle circulation system as the WBSP is implemented. Section 7.5, "Bicycle Circulation System," of the WBSP document includes a discussion of the existing bicycle facilities in the Specific Plan Area as well as planned improvements for new bicycle facilities as part of the WBSP's implementation. Figure 7-26 in the WBSP illustrates the planned bike facility improvements. The following list highlights portions of the WBSP which include policies, guidelines, and planned improvements for the development of bicycle infrastructure as part of plan implementation.

Planned bike facility improvements within the Specific Plan Area neighborhood include:

- **7.5.3 Planned Improvements**
  - Enhanced Class II buffered bike lanes planned along the length of Broadway
  - Class I shared-use paths, west of 5th Street, linking neighborhoods to the new parks in The Mill at Broadway and Marina Vista subareas and to schools for safe neighborhood routes to schools
  - A distributed network of Class II bike lanes through the neighborhood created along 3rd Street, 5th Street, 7th Street/ McClatchy Way, and Crate Avenue
  - Class III bike routes closing gaps in the bicycle network to connect with Vallejo Way
- **9.3 Sustainability: Sustainable Design Principles**
  - Walkable, Multimodal Circulation and Connectivity
    - Multimodal streets for vehicular, transit, bike, pedestrian, and other alternative transportation modes connecting to the Central City and riverfront bike trails

In addition to the planned bicycle facilities in the Specific Plan Area, the WBSP would include a street typology for specific roadways in the Specific Plan Area which include allocated space in the right of way for both pedestrian and bicycle facilities. Figure 7-4 through 7-21 in Chapter 7 of the WBSP document include cross section illustrations of the various roadway designs planned for the Specific Plan Area. Because the WBSP is a specific plan document, bicycle parking specifications for individual development projects are not known at this time. Individual development projects, as they are developed within the Specific Plan Area, will be required to adhere to the both the City's bicycle parking requirements (Sacramento City Code Section 17.608.030) and the CALGreen bicycle parking requirements for both residential and nonresidential developments. The WBSP takes into consideration and incorporates the planned facilities in the City's Bicycle Master Plan and includes additional details regarding the planned roadway design for specific roadways in the Specific Plan Area, such as additional bicycle facilities that are not included in the City's Bicycle Master Plan. Additionally, individual development projects undertaken as part of plan implementation will adhere to the City's bicycle parking standards and CALGreen standards as they are developed in the Specific Plan Area. As a result, the WBSP would be consistent with this CAP Checklist question.

5. For residential projects of 10 or more units, commercial projects greater than 25,000 square feet, or industrial projects greater than 100,000 square feet, would the project include on-site renewable energy systems (e.g., photovoltaic systems) that would generate at least a minimum of 15% of the project's total energy demand on-site? or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen?

The WBSP includes consideration for the development of photovoltaic systems in several areas within the planning document. The following list highlights portions of the WBSP which include policies and guidelines for the development of photovoltaic systems on individual development projects as the WBSP is implemented.

- **9.5.1 Neighborhood Form**
  - **Walkable Neighborhood Block and Street Grid Pattern**
    - **Guideline 1:** Multimodal Blocks and buildings are encouraged to be laid out in a pattern that enables units to maximize solar access and incorporate features, such as solar panels, natural daylighting, and podium or rooftop gardens.
  - **Building Articulation and Details**
    - **Guideline 5:** Energy conservation strategies, including window shading devices, selection of colors to reduce heat gain, energy efficient windows, cool roofs, high-quality insulation and radiant barriers, solar panels, and whole house energy systems are encouraged, to reduce energy consumption associated with heating and air conditioning during winter and summer months.
    - **Guideline 14:** Photovoltaic solar panels or solar shingles are also encouraged, to generate energy for home use and reduce reliance on grid power.

While the WBSP document does include several policies and guidelines related to photovoltaic systems, the WBSP does not include any specific requirements for the incorporation of these systems into individual development projects in the Specific Plan Area. However, development under the WBSP would be undertaken in compliance with the 2019 California Energy Code and would require that residential projects include appropriate solar photovoltaic systems to offset electricity demand associated with WBSP implementation. As a result, the WBSP would be considered consistent with this checklist question.

6. Would the project (if constructed on or after January 1, 2014) comply with minimum CALGreen Tier I water efficiency standards?

The WBSP includes several goals and policies related to water conservation and water efficiency. Section 9.3, “Sustainability,” of the WBSP document includes a set of sustainable design principles for implementation of the WBSP including water conservation. The following policies in the WBSP relate specifically to water conservation.

- **Table 9-1: Sustainable Design Principles**
  - **Natural Resource Conservation and Urban Greening**
    - Water-efficient and drought-tolerant landscape selections and design solutions
    - Water conservation and site-integrated, stormwater management strategies

While the WBSP does include consideration of water conservation for individual development projects, it does not specify requirements for the inclusion of the CALGreen Tier 1 water efficiency standards. However, in accordance with the City's 2035 General Plan policies identified above, new development within the Specific Plan Area would be required to reduce water demands, consistent with the CAP's water efficiency requirement. As a result, the WBSP would be consistent with this checklist question.

As discussed above, the WBSP document includes a set of goals, policies, guidelines, and planned facilities which demonstrate consistency with many of the requirements in the CAP Checklist. Furthermore and as documented above, the WBSP would be consistent with all applicable CAP checklist requirements and, therefore, would be aligned with the City's GHG emissions reduction targets established in its CAP.

Construction Emissions

The development of new land uses would generate GHG emissions from the use of heavy-duty construction equipment, haul truck trips to and from projects being developed, and construction worker commute trips. GHG emissions associated with construction activity would vary depending on the type and size of land uses being developed. Construction-related GHG emissions would be temporary and intermittent in nature for any given project but when considered for the projected development under the WBSP, construction emissions could be cumulatively considerable. Table 4.7-3 provides a summary of the total construction-related emissions that would occur as a result of new land uses.

Table 4.7-3 Construction Related GHG Emissions Through 2035

Scenario	MTCO2e
Total Construction Emissions	77,019
Annual Construction Emissions 2020-2035	5,135

Note: $MTCO_2e$ = metric tons carbon dioxide equivalent per year.

Source: Modeling performed by Ascent Environmental in 2019.

Operational Emissions

Projected development as part of WBSP implementation would include new land use types that would generate operational GHG emissions. Activity associated with the operation of these new land uses would result in project-generated vehicle trips (i.e., project-generated VMT); area-source emissions from operation of landscape maintenance and other equipment; energy-source emissions from the consumption of electricity and natural gas; water-source emissions from water use and the conveyance and treatment of wastewater; and waste-source emissions from the transport and disposal of solid waste. GHG emissions associated with each land use would vary based on the activities that would occur and by the size and type of each land use. Table 4.7-4 provides a summary of the total operational GHG emissions under existing conditions in the Specific Plan Area, the total operational emissions for the project, and the net increase in GHG emissions anticipated from new development in the Specific Plan Area.

Table 4.7-4 Operational Greenhouse Gas Emissions Summary

Sector	$MTCO_2e$/year
Operational Greenhouse Gas Emissions – Existing Conditions	
Area	19
Energy Use	3,942
Mobile-Source	10,800
Waste Generation	674

Sector	$MTCO_2e$/year
Operational Greenhouse Gas Emissions – Existing Conditions	
Water-Related	344
Total Annual Operational Emissions	**15,779**
Operational Greenhouse Gas Emissions	
Area	85
Energy Use	5,275
Mobile-Source	21,806
Waste Generation	1,627
Water-Related	438
Total Annual Operational Emissions	29,231
Amortized Construction Emissions	5,135
Total Annual Emissions	34, 366
WBSP's Net Increase in Greenhouse Gas Emissions	
Total Annual Emissions	34,366
Total Annual Emissions under Existing Conditions	15,779
Total Net Increase in Annual Emissions	18,587

Notes: Totals may not add due to rounding.

CO_2e = carbon dioxide equivalent; MT = metric tons.

See Appendix C for detailed input parameters and modeling results.

Source: Modeling performed by Ascent Environmental in 2019.

As discussed above and shown in Table 4.7-3 and Table 4.7-4, the project would result in construction and operational GHG emissions totaling 34,366 $MTCO_2e$/year. Operation of land uses under existing conditions result in 15,779 $MTCO_2e$/year. As shown in Table 4.7-4, annual emissions within the Specific Plan Area as a result of WBSP implementation would result in a net increase of 18,587 $MTCO_2e$/year over existing conditions.

Although the project would result in a net increase in GHG emissions, the project would include a number of factors that would help reduce operational GHG emissions associated with development within the Specific Plan Area. The project is emblematic of the type of urban development (i.e., close to a regional job center and nearby services) that would reduce VMT and associated GHG emissions. Based on the SACOG's 2020 RTP/SCS, the project is located in an area where the annual VMT per capita is only 50 to 85 percent of the regional average (SACOG 2019). Locating new residents within the Specific Plan Area would result in fewer GHG emissions compared to development within a less central location, which would result in higher per capita VMT and require residents to drive further on a daily basis. As discussed above and also in Section 4.2 "Air Quality," the WBSP includes a number of design features that would help reduce GHG emissions, particularly transportation features that encourage walk and biking as primary travel modes.

Further, as demonstrated above, the WBSP would be consistent with the measures included in the City's current CAP, which includes emissions reductions applicable to new development and redevelopment that may occur within the Specific Plan Area. Also, the City is currently in the process of updating its CAP, which will include a suite of measure that will apply to new development that will ensure the City is consistent with recent updates to the State's GHG reduction targets. Once the update to the CAP is adopted, new development within the Specific Plan Area will be subject to the requirements of the City's

update CAP and further reduce GHG emissions consistent with recently established State targets. Finally, although not required for the purposes of this impact, implementation of Mitigation Measure 4.2-2, which requires new development to provide a percentage of new residential uses as all-electric residences, would also reduce GHG emissions. As a result, individual development undertaken as part of the WBSP would be consistent with the City's existing CAP, and upon adoption of the City's update to its CAP, new development within the Specific Plan Area will be required to comply with the updated CAP, thereby ensuring consistency with the State's GHG reduction targets identified in the 2017 Scoping Plan. As a result and as established in State CEQA Guidelines Section 15183.5, this impact would be **less than significant**.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. Scenario B option would result in less development as part of the project and, therefore, would result in less GHG emissions. The land use scenario in Scenario B would result in an increase in the intensity of the land uses in the Specific Plan Area and, therefore, would still result in a net increase in GHG emissions. However, similar to Scenario A, development under the Scenario B option would be required to maintain consistency with the City's CAP, and therefore, this impact would be **less than significant**.

CUMULATIVE IMPACTS

As noted previously, climate change is an inherently cumulative and global issue. The quantity of greenhouse gas (GHG) emissions required to induce climate change is not precisely known; however, it is clear that the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature, or to global, local, or micro climate. The analysis of GHG emissions and climate change that is provided above is considered to address both project-specific and cumulative impacts.

4.8 HAZARDS AND HAZARDOUS MATERIALS

This section describes the potential impacts of the West Broadway Specific Plan (WBSP) related to hazardous materials and public health. The evaluation provided in this section is based, in part, on review of the City of Sacramento 2035 Background Report, the City of Sacramento 2035 General Plan Master Environmental Impact Report (MEIR), and the Upper Land Park/Broadway Study Area Background Report and Community Needs Assessment.

Comments received in response to the Notice of Preparation for the EIR included comment letters from the Central Valley Regional Water Quality Control Board (CVRWQCB) and the Pacific Gas and Electric Company (PG&E). The letters included specific recommendations regarding stormwater pollution, waste discharge requirements and gas transmission pipelines. Comments regarding stormwater pollution and waste discharge requirements are addressed in Section 4.9, "Hydrology and Water Quality." Comments regarding gas transmission pipelines are addressed in this section. A copy of the Notice of Preparation (NOP) and comment letters received in response to the NOP are included in Appendix A and Appendix B of this Draft EIR, respectively.

4.8.1 Regulatory Setting

FEDERAL

Management of Hazardous Materials

Various federal laws address the proper handling, use, storage, and disposal of hazardous materials, as well as requiring measures to prevent or mitigate injury to health or the environment if such materials are accidentally released. The U.S. Environmental Protection Agency (EPA) is the agency primarily responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials. Applicable federal regulations pertaining to hazardous materials are primarily contained in Code of Federal Regulations (CFR) Titles 29, 40, and 49. Hazardous materials, as defined in the Code, are listed in 49 CFR 172.101. Management of hazardous materials is governed by the following laws.

- The Toxic Substances Control Act of 1976 (15 U.S. Code [USC] Section 2601 et seq.) regulates the manufacturing, inventory, and disposition of industrial chemicals, including hazardous materials. Section 403 of the Toxic Substances Control Act establishes standards for lead-based paint hazards in paint, dust, and soil.
- The Resource Conservation and Recovery Act of 1976 (also called RCRA) (42 USC 6901 et seq.) is the law under which EPA regulates hazardous waste from the time the waste is generated until its final disposal ("cradle to grave").
- The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (also called the Superfund Act or CERCLA) (42 USC 9601 et seq.) gives EPA authority to seek out parties responsible for releases of hazardous substances and ensure their cooperation in site remediation.
- The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499; USC Title 42, Chapter 116), also known as SARA Title III or the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), imposes hazardous materials planning requirements to help protect local communities in the event of accidental release.

- The Spill Prevention, Control, and Countermeasure (SPCC) rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires specific facilities to prepare, amend, and implement SPCC Plans. The SPCC rule is part of the Oil Pollution Prevention regulation, which also includes the Facility Response Plan rule.

Transport of Hazardous Materials

The U.S. Department of Transportation (DOT) regulates transport of hazardous materials between states and is responsible for protecting the public from dangers associated with such transport. The federal hazardous materials transportation law, 49 USC 5101 et seq. (formerly the Hazardous Materials Transportation Act 49 USC 1801 et seq.) is the basic statute regulating transport of hazardous materials in the United States. Hazardous materials transport regulations are enforced by the Federal Highway Administration, the U.S. Coast Guard, the Federal Railroad Administration, and the Federal Aviation Administration.

Worker Safety

The federal Occupational Safety and Health Administration (OSHA) is the agency responsible for assuring worker safety in the handling and use of chemicals identified in the Occupational Safety and Health Act of 1970 (Public Law 91-596, 9 USC 651 et seq.). OSHA has adopted numerous regulations pertaining to worker safety, contained in CFR Title 29. These regulations set standards for safe workplaces and work practices, including standards relating to the handling of hazardous materials and those required for excavation and trenching.

Protection of Underground Pipelines from Excavation Activity

Title 49 of the CFR Part 196 prescribes the minimum requirements that excavators must follow to protect underground pipelines from excavation-related damage and establishes an enforcement process for violations of the requirements.

Prior to and during excavation activity, the excavator must:

(a) Use an available one-call system before excavating to notify operators of underground pipeline facilities of the timing and location of the intended excavation;

(b) If underground pipelines exist in the area, wait for the pipeline operator to arrive at the excavation site and establish and mark the location of its underground pipeline facilities before excavating;

(c) Excavate with proper regard for the marked location of pipelines an operator has established by taking all practicable steps to prevent excavation damage to the pipeline;

(d) Make additional use of one-call as necessary to obtain locating and marking before excavating to ensure that underground pipelines are not damaged by excavation.

If a pipeline is damaged in any way by excavation activity, the excavator must promptly report such damage to the pipeline operator and whether a leak occurs, at the earliest practicable moment following discovery of the damage.

Uniform Fire Code

The Uniform Fire Code (UFC) contains regulations relating to construction and maintenance of buildings and the use of premises. Topics addressed in the code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and premises. The code contains specialized technical regulations related to fire and life safety.

STATE

Management of Hazardous Materials

In California, both federal and state community right-to-know laws are coordinated through the Governor's Office of Emergency Services. The federal law, SARA Title III or EPCRA, described above, encourages and supports emergency planning efforts at the state and local levels and to provide local governments and the public with information about potential chemical hazards in their communities. Because of the community right-to-know laws, information is collected from facilities that handle (e.g., produce, use, store) hazardous materials above certain quantities. The provisions of EPCRA apply to four major categories:

- emergency planning,
- emergency release notification,
- reporting of hazardous chemical storage, and
- inventory of toxic chemical releases.

The corresponding state law is Chapter 6.95 of the California Health and Safety Code (Hazardous Materials Release Response Plans and Inventory). Under this law, qualifying businesses are required to prepare a Hazardous Materials Business Plan (HMBP), which would include hazardous materials and hazardous waste management procedures and emergency response procedures, including emergency spill cleanup supplies and equipment. At such time as the applicant begins to use hazardous materials at levels that reach applicable state and/or federal thresholds, the plan is submitted to the administering agency.

The California Department of Toxic Substances Control (DTSC), a division of the California Environmental Protection Agency, has primary regulatory responsibility over hazardous materials in California, working in conjunction with EPA to enforce and implement hazardous materials laws and regulations. As required by Section 65962.5 of the California Government Code, DTSC maintains a hazardous waste and substances site list for the State, known as the Cortese List. Individual regional water quality control boards (RWQCBs) are the lead agencies responsible for identifying, monitoring, and cleaning up leaking underground storage tanks (LUSTs). The CVRWQCB has jurisdiction over the Specific Plan Area.

California Code of Regulations

State regulations applicable to hazardous materials are contained in the CCR. Title 22 and 26 of the CCR pertain to hazardous materials and the management of hazardous materials. Title 8 contains Construction Safety Orders pertaining to hazardous materials, including, but not limited to, lead. In addition to Construction Safety Order 1532.1 from Title 8 of the CCR, lead-based paint exposure guidelines are provided by the Housing and Urban Development Department. In California, lead based paint abatement must be performed and monitored by contractors with appropriate certification from the California Department of Health Services. Along with the DTSC, the RWQCB is responsible for implementing regulations pertaining to management of soil and groundwater investigation and cleanup. RWQCB regulations are contained in Title 27 of the CCR.

The California Accidental Release Prevention Program (CalARP; CCR Title 19, Division 2, Chapter 4.5) covers certain businesses that store or handle more than a specified volume of regulated substances at their facilities. The CalARP program regulations became effective on January 1, 1997, and include the provisions of the federal Accidental Release Prevention program (Title 40, CFR Part 68), with certain additions specific to the state pursuant to Article 2, Chapter 6.95, of the Health and Safety Code. The list of regulated substances is found in Article 8, Section 2770.5 of the CalARP program regulations.

Businesses that use a regulated substance above the noted threshold quantity must implement an accidental release prevention program, and some may be required to complete a risk management plan (RMP). An RMP is a detailed engineering analysis of the potential accident factors present at a business and the mitigation measures that can be implemented to reduce this accident potential. The purpose of an RMP is to decrease the risk of an off-site release of a regulated substance that might harm the surrounding environment and community. An RMP includes the following components: safety information, hazard review, operating procedures, training, maintenance, compliance audits, and incident investigation. The RMP must consider the proximity to sensitive populations located in schools, residential areas, general acute care hospitals, long-term health care facilities, and child daycare facilities, as well as external events such as seismic activity.

Disposal of Fluorescent Lamps and Tubes

Section 66261.50 of the California Code of Regulations Title 22 identifies all fluorescent lamps and tubes as hazardous waste when they are discarded because they contain mercury. All fluorescent lamps and tubes must be recycled, or taken to a household hazardous waste disposal facility, a universal waste handler (e.g., storage facility or broker), or an authorized recycling facility (Title 22, division 4.5, chapter 23, section 66273.8).

Transport of Hazardous Materials and Hazardous Materials Emergency Response Plan

The State of California has adopted DOT regulations for the movement of hazardous materials originating within the state and passing through the state; state regulations are contained in Title 26 of the California Code of Regulations (CCR). State agencies with primary responsibility for enforcing state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans). Together, these agencies determine container types used and license hazardous waste haulers to transport hazardous waste on public roads.

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local governments and private agencies. Response to hazardous materials incidents is one part of the plan. The plan is managed by the Governor's Office of Emergency Services, which coordinates the responses of other agencies in the Specific Plan Area.

Management of Construction Activities

Through the Porter-Cologne Water Quality Act and the National Pollution Discharge Elimination System (NPDES) program, RWQCBs have the authority to require proper management of hazardous materials during project construction. For a detailed description of the Porter-Cologne Water Quality Act, the NPDES program, and the role of the CVRWQCB, see Section 4.9, "Hydrology and Water Quality."

The State Water Board adopted the statewide NPDES General Permit in August 1999. The state requires that projects disturbing more than one acre of land during construction file a Notice of Intent with the RWQCB to be covered under this permit. Construction activities subject to the General Permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters. A stormwater pollution prevention plan (SWPPP) must be developed and implemented for each site covered by the permit. The SWPPP must include best management plans (BMPs) designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the project; the BMPs must address source control and, if necessary, pollutant control.

Worker Safety

The California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations within the state. Cal/OSHA standards are typically more stringent than federal OSHA regulations and are presented in Title 8 of the CCR. Cal/OSHA conducts onsite evaluations and issues notices of violation to enforce necessary improvements to health and safety practices.

Title 8 of the CCR also includes regulations that provide for worker safety when blasting and explosives are utilized during construction activities. These regulations identify licensing, safety, storage, and transportation requirements related to the use of explosives in construction.

California Excavation Manual

Underground Service Alert of Northern California and Nevada (USA North 811) provides free and effective damage prevention service that protects citizens, communities, environment, essential public services, and underground facilities in California. The California Excavation Manual includes guidance and recommendations to ensure safe excavation.

California Department of Forestry and Fire Protection

California Department of Forestry and Fire Protection (CAL FIRE) implements statewide laws aimed at reducing wildfire hazards in state responsibility areas. State responsibility areas are lands for which the state has primary financial responsibility for preventing and suppressing fires, as determined by the California Board of Forestry and Fire Protection under Public Resources Code (PRC) Sections 4125 and 4102. The state also provides protection to private, undeveloped land. Fire-safe regulations address road standards for fire equipment access, standards for signage, minimum water supply requirements for emergency fire use, and fuel breaks and greenbelts, among others. Fire protection outside state responsibility areas is the responsibility of federal or local jurisdictions. These areas are referred to by CAL FIRE as federal responsibility areas and local responsibility areas, respectively.

CAL FIRE maps the fire hazard severity of wildland areas that contain substantial forest fire risks and hazards in state responsibility areas. Meanwhile, the California Board of Forestry and Fire Protection is responsible for identifying Very High Fire Hazard Severity Zones in both state responsibility areas and local responsibility areas.

California Fire Code

The California Fire Code is Part 9 of the CCR, Title 24, also referred to as the California Building Standards Code. The California Fire Code incorporates the UFC with necessary California amendments. It prescribes regulations consistent with nationally recognized good practices for the safeguarding to a reasonable degree of life and property from the hazards of fire, explosion, and dangerous conditions arising from the storage, handling, and use of hazardous materials and devices and from conditions hazardous to life or property in the use or occupancy of buildings or premises and provisions to assist emergency response personnel.

Government Code Section 66474.02

Before approving a tentative map (or a parcel map where a tentative map is not required) for an area located in a state responsibility area or a Very High Fire Hazard Severity Zone, the legislative body of the County must find that the design and location of each lot in the subdivision, and the subdivision as a whole, are consistent with applicable regulations adopted by CAL FIRE under PRC Sections 4290 and 4291, ensure that structural fire protection and suppression services will be developed, and find that points of ingress and egress meet the road standards for fire equipment access adopted under PRC Section 4290 and any applicable local ordinance.

2018 Strategic Fire Plan for California

The revised 2018 Strategic Fire Plan for California is the state's road map for reducing the risk of wildfire. By emphasizing fire prevention, the plan seeks to reduce firefighting costs and property losses, increase firefighter safety, and contribute to ecosystem health.

LOCAL

Sacramento County Environmental Management Department, Hazardous Materials Division

The Hazardous Materials Division of the Sacramento County Environmental Management Department (EMD) is the designated Certified United Program Agency for the City of Sacramento and Sacramento County and is responsible for implementing six statewide environmental programs for Sacramento County, including:

- Underground storage tanks of hazardous substances;
- HMBP requirements;
- Hazardous Waste Generator requirements;
- California Accidental Release Prevention program;
- UFC hazardous materials management plan; and
- Above Ground Storage Tanks (Spill Prevention Control and Countermeasures Plan).

City of Sacramento 2035 General Plan

The following goals and policies from the 2035 General Plan Public Health and Safety (PHS) and Land Use (LU) elements are relevant to Hazards and Hazardous Substances.

GOAL PHS 2.2: Fire Prevention Programs and Suppression. The City shall deliver fire prevention programs that protect the public through education, adequate inspection of existing development, and incorporation of fire safety features in new development.

- **Policy PHS 2.2.1: Education.** The City shall provide fire safety, prevention, and emergency preparedness educational programs to the public.
- **Policy PHS 2.2.2: Development Review.** The City shall continue to include the Fire Department in the review of development proposals to ensure projects adequately address safe design and on-site fire protection and comply with applicable fire and building codes.
- **Policy PHS 2.2.3: Fire Sprinkler Systems.** The City shall promote installation of fire sprinkler systems in new commercial and residential development, and shall encourage the installation of sprinklers in existing structures when it is reasonable and not cost prohibitive.
- **Policy PHS 2.2.4: Water Supply for Fire Suppression.** The City shall ensure that adequate water supplies are available for fire-suppression throughout the city, and shall require development to construct all necessary fire suppression infrastructure and equipment.
- **Policy PHS 2.2.5: High-Rise Development.** The City shall require that high rise structures include sprinkler systems and on-site fire suppression equipment and materials, and be served by fire stations containing truck companies with specialized equipment for high-rise fire and/or emergency incidents.
- **Policy PHS 2.2.6: Fire Safety Inspections.** The City shall continue to maintain a program consistent with requirements of State law to inspect buildings not under authority of the Office of the State Fire Marshall.

- **Policy PHS 2.2.7: Wildland Hazards on City-Owned Spaces.** The City shall continue to remove excessive/overgrown vegetation (e.g., trees, shrubs, weeds) and rubbish from City-owned property to prevent and minimize fire risks to surrounding properties.
- **Policy PHS 2.2.8: Wildland Hazards on Private Properties.** The City shall continue to require private property owners to remove excessive/overgrown vegetation (e.g., trees, shrubs, weeds) and rubbish to the satisfaction of the Fire Department to prevent and minimize fire risks to surrounding properties.
- **Policy PHS 2.2.9: Development Review for Emergency Response.** The City shall continue to include appropriate emergency responders (e.g., Fire Department staff) in the review of development proposals to ensure emergency response times can be adequately maintained.

GOAL PHS 3.1: Reduce Exposure to Hazardous Materials and Waste. Protect and maintain the safety of residents, businesses, and visitors by reducing, and where possible, eliminating exposure to hazardous materials and waste.

- **Policy PHS 3.1.1: Investigate Sites for Contamination.** The City shall ensure buildings and sites are investigated for the presence of hazardous materials and/or waste contamination before development for which City discretionary approval is required. The City shall ensure appropriate measures are taken to protect the health and safety of all possible users and adjacent properties.
- **Policy PHS 3.1.2: Hazardous Material Contamination Management Plan.** The City shall require that property owners of known contaminated sites work with Sacramento County, the State, and/or Federal agencies to develop and implement a plan to investigate and manage sites that contain or have the potential to contain hazardous materials contamination that may present an adverse human health or environmental risk.
- **Policy PHS 3.1.4: Transportation Routes.** The City shall restrict transport of hazardous materials within Sacramento to designated routes.
- **Policy PHS 3.1.6: Compatibility with Hazardous Materials Facilities.** The City shall ensure that future development of treatment, storage, or disposal facilities is consistent with the County's Hazardous Waste Management Plan, and that land uses near these facilities, or proposed sites for the storage or use of hazardous materials, are compatible with their operation.
- **Policy PHS 3.1.8: Risks from Hazardous Materials Facilities.** The City shall review proposed facilities that would produce or store hazardous materials, gas, natural gas, or other fuels to identify, and require feasible mitigation for, any significant risks. The review shall consider, at a minimum, the following: presence of seismic or geologic hazards; presence of hazardous materials; proximity to residential development and areas in which substantial concentrations of people would occur; and nature and level of risk and hazard associated with the proposed project.

GOAL LU 7.2: Industrial Development. Maintain industrial districts that provide for the manufacturing of goods, flex space, and research and development that are attractive, compatible with adjoining nonindustrial uses, and well-maintained.

- **Policy LU 7.2.8: Hazardous Industries.** The City shall require industrial uses that use solvents and/or other toxic or hazardous materials to be sited in concentrated locations away from existing or planned residential, commercial, or employment uses and require the preparation of Hazardous Substance Management Plans to limit the possibility of contamination.

Emergency Response

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local government and private agencies. Responding to hazardous materials incidents is one part of this plan. Sacramento County has adopted the Area Plan for Emergency Response to Hazardous Materials Incidences in Sacramento County, which is administered by the EMD (Sacramento County 2012). The area plan outlines the procedures that County regulatory and response agencies will use to coordinate management, monitoring, containment, and removal of hazardous materials in the event of an accidental release. The area plan also provides guidance for coordinating the responses of other agencies, including the DTSC, CHP, California Department of Fish and Wildlife (CDFW), RWQCB, and local fire departments.

Sacramento County Well Ordinance

Chapter 6.28 of the Sacramento County Code is intended to protect the health, safety, and general welfare of the people by ensuring that the groundwater of the county is not polluted or contaminated by improper well construction, modification, repair, or abandonment. The ordinance prohibits digging, boring, drilling, deepening, modifying, repairing or destroying a well without receiving a permit to do so from the EMD.

City of Sacramento Municipal Code

Chapter 8.64 Hazardous Materials Disclosure

The city council finds and declares hazardous substances and hazardous wastes present in the community may pose acute and chronic health hazards to individuals who live and work in this city, and who are exposed to such substances as a result of fires, spills, industrial accidents, or other types of releases or emissions. It is the intent of the city council that this chapter recognize the community's right and need for basic information on the use and disposal of hazardous materials in the city and that it establish an orderly system for the provision of such information. It is further the intent of the city council that the system of disclosure set forth in this chapter shall provide the information essential to firefighters, health officials, planners, elected officials and residents in meeting their responsibilities for the health and welfare of the community in such a way that the statutory privilege of trade secrecy is not abridged. Section 8.644.040 of the city code requires that any person who uses or handles a hazardous material must annually submit a completed disclosure form.

Chapter 12.20 Closure of Primary Streets for Construction

Except when performing emergency repairs, no person shall perform any work that will obstruct vehicular or pedestrian traffic on a city street unless a traffic control plan has been approved by the City of Sacramento director of public works or utilities departments. The traffic control plan must include the location of areas where the public right-of-way will be closed or obstructed, the placement of traffic control devices and the time periods when the traffic control will be in effect. All persons performing work shall conform to any public notification requirements included in the permit, contract documents, or approved plans.

Chapter 15.36 Fire Code Adopted

This chapter, also known as the "fire prevention code" of the City, generally adopts the UFC with deletions, amendments, and additions, as appropriate.

Section 8.100.630 Fire Hazard

Listed under Chapter 8.100 (Housing Code), which provides minimum requirements for the protection of life, limb, health, property, safety, and welfare of the general public and the owners and occupants of residential buildings, this section defines fire hazards. Specifically, "any building or portion thereof,

device, apparatus, equipment, combustible waste, or vegetation which, in the opinion of the city fire marshal or his or her deputy, is in such a condition as to cause a fire or explosion or provide a ready fuel to augment the spread and intensity of fire or explosion arising from any cause, shall be deemed to be a fire hazard."

4.8.2 Environmental Setting

For purposes of this section, the term "hazardous materials" refers to both hazardous substances and hazardous wastes. A "hazardous material" is defined in the CFR as "a substance or material that … is capable of posing an unreasonable risk to health, safety, and property when transported in commerce" (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

"Hazardous material" means any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

"Hazardous wastes" are defined in California Health and Safety Code Section 25141(b) as wastes that: … because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause, or significantly contribute to an increase in mortality or an increase in serious illness [or] pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

General Historical and Present Land Uses

Much of the development in Sacramento was initially driven by the city's connection to the Sacramento River waterfront and the commercial transport of lumber and agriculture. The central city area, located north of the Specific Plan Area, was generally developed in the 1840s and has a long history of mixed commercial, industrial, and residential use that has continued to the present.

The riverfront consisted of industrial uses to support commercial freight. Docks extended into the river at numerous locations along the banks, erected for both commercial and industrial ventures. By the early 1900s, tankers transferred fuel oil into tank farms near private company docks on the riverfront at Broadway, north of the existing marina. Tank farms located on the western end of Broadway are generally no longer in operation, however, hazardous materials have constrained further development.

Development south of Y Street (now Broadway) began after 1923 when the Y Street levee was moved and improved flood protection was provided to the formerly swampy area now known as Land Park. Residential developments including the Alder Grove and Marina Vista housing projects were constructed in 1942 and 1953, respectively. In addition, the William Land Woods affordable housing community, located directly south of Marina Vista, was constructed in 1969 and renovated in 1994. Industrial uses were developed south of Broadway, including the 31-acre Setzer Forest Products site and Sacramento Farmers Market Inc. The Leataata Floyd Elementary School, previously known as Jedidiah Smith Elementary, and Arthur A. Benjamin Health Professions High School were constructed just north of McClatchy Way.

Hazardous Building Materials Associated with Demolition and Renovation

As described above, structures within the Specific Plan Area were primarily constructed during the mid-1900s. Because of the age of some buildings and structures within the Specific Plan Area, the potential exists for the structures to contain hazardous building materials. Older buildings and structures can

contain building materials that include hazardous components such as lead-based paint (LBP), asbestos containing materials (ACMs), mercury, polychlorinated biphenyls (PCBs), and termiticides.

Among its numerous uses and sources, lead can be found in paint, water pipes, solder in plumbing systems, and in soils around buildings and structures painted with LBP. Old peeling paint can contaminate near surface soil, and exposure to residual lead can have adverse health effects especially in children. LBP was phased out in the United States beginning with the passage of the Lead-Based Paint Poisoning Prevention Act in 1971. Prior to the EPA ban in 1978, LBP was commonly used on interior and exterior surfaces of buildings. Structures built prior to 1978 may have LBP and some paints manufactured after 1978 for industrial or marine uses legally contain more than 0.06 percent lead. Exposure to lead can result in the accumulation of lead in the blood, soft tissues, and bones. Children are particularly susceptible to potential lead-related health problems because it is easily absorbed into developing systems and organs (EPA 2019a; EPA 2019b).

Asbestos, a naturally-occurring fibrous material, was used as a fireproofing and insulating agent in building construction before such uses were terminated due to liability concerns in the late 1970s. From 1973 through 1990, several laws were passed banning the manufacture and use of ACM in insulation, spray-on applications and other building materials. However, some materials are still allowed to contain asbestos, such as cement flat sheets, roofing materials, and vinyl floor tile (EPA 2018). The demolition of structures with ACM can result in airborne fibers. Inhalation of the tiny asbestos fibers can lead to lung disease. Structures that predate 1981 and structural materials installed before 1981 are presumed to potentially contain asbestos. Because it was widely used prior to the discovery of its health effects, asbestos can be found in a variety of building materials and components such as insulation, walls and ceilings, floor tiles, and pipe insulation. Friable (easily crumbled) materials are particularly hazardous because inhalation of airborne fibers is the primary mode of asbestos entry into the body. Nonfriable asbestos is generally bound to other materials such that it does not become airborne under normal conditions. Non-friable asbestos and encapsulated friable asbestos do not pose substantial health risks. Asbestos exposure is a human respiratory hazard. Asbestos-related health problems include lung cancer and asbestosis. Any activity that involves cutting, grinding, or drilling during building renovation or demolition or relocation of underground utilities could release friable asbestos fibers unless proper precautions are taken. Inhalation of airborne fibers is the primary mode of asbestos entry into the body, making friable materials the greatest potential health risk (OSHA 2019).

Spent fluorescent light tubes commonly contain mercury vapors. In February 2004, regulations took effect in California that classified all fluorescent lamps and tubes as hazardous waste. When these lamps or tubes are broken, mercury is released to the environment. Mercury can be absorbed through the lungs into the bloodstream and can be washed by rain water into waterways. Mercury switches may also be present in some buildings. A mercury switch (also known as a mercury tilt switch) is a switch which opens and closes an electrical circuit through a small amount of liquid mercury (CalRecycle 2018).

PCBs are organic oils that were formerly used primarily as insulators in many types of electrical equipment such as transformers and capacitors. After PCBs were determined to be carcinogenic in the mid-to-late 1970s, the EPA banned PCB use in most new equipment and began a program to phase out certain existing PCB-containing equipment. Fluorescent lighting ballasts manufactured after January 1, 1978, do not contain PCBs and are required to have a label clearly stating that PCBs are not present in the unit. PCBs are highly persistent in the environment, and exposure to PCBs has been demonstrated to cause cancer, as well as a variety of other adverse health effects on the immune system, reproductive system, nervous system, and endocrine system (EPA 2017).

Chlordane was a primary component of pesticides used to control termites from 1948 until 1988 when the EPA banned the manufacture and use of chlordane. The health risk from chlordane is derived through ingestion and inhalation. The acute (short-term) effects of chlordane in humans consist of

gastrointestinal distress and neurological symptoms, such as tremors and convulsions. Chronic (long-term) inhalation exposure of humans to chlordane results in adverse effects on the nervous system. Chlordane is persistent in soil and is slow to degrade (EPA 2000).

Sites with Known Contamination and/or Regulatory Agency Oversight

A Phase I Environmental Site Assessment (ESA) was not conducted for the Specific Plan Area prior to the preparation of this report. However, public materials including the Cortese List were reviewed to identify sites with known contamination. The Specific Plan Area contains sites that were historically contaminated but have been remediated, sites that are known or believed to be contaminated that are being characterized or cleaned up, and sites that are regulated because they use or store hazardous materials and wastes (see Table 4.8-1). Such hazardous material sites are listed on the Cortese List, a list compiled by several agencies that provides information about the location of hazardous materials release sites.

The DTSC maintains the EnviroStor electronic database, which contains information on properties in California where hazardous substances have been, or have potential to be, released. This database contains the "Cortese List" (a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5). EnviroStor provides a brief history of cleanup activities, contaminants of concern, and scheduled future cleanup activities.

Extensive federal and state legislation addresses LUSTs, including replacement and cleanup. The State of California requires that older tanks be replaced with new double-walled tanks with flexible connections and monitoring systems. The State Water Resources Control Board (SWRCB) has been designated the lead regulatory agency in the development of LUST regulations and policy. The RWQCB, in cooperation with the Office of Emergency Services, maintains an inventory of LUSTs in a statewide database.

Table 4.8-1 shows sites of past or current regulatory concern within the Specific Plan Area that are listed in the DTSC EnviroStor database and/or the SWRCB GeoTracker database.

Table 4.8-1 Sites with Known Contamination and/or Regulatory Agency Oversight

Site	Location	Type	Status	Year
Fire Station #5	731 Broadway	LUST Cleanup Site	Closed	2/7/1996
Roy S. Hall Trust Property	401 Broadway	Cleanup Program Site	Closed	5/17/2012
Sacramento City Unified School District Maint. Yard	425 1st Avenue (AKA 5th St @ 1st Ave)	LUST Cleanup Site	Closed	2/25/2014
Merideth Fish Company	2601 5th St (AKA: 518 1st Ave)	LUST Cleanup Site	Closed	10/2/2001
Setzer Forest Products & Sacramento Farmers Market	2570 Third St	LUST Cleanup Site	Closed	5/25/2018
Sacramento Farmers Market Inc	2630 5th St	LUST Cleanup Site	Closed	11/10/1997
Duartie Property	2681 5th St	LUST Cleanup Site	Closed	12/12/1996
McClatchy Way Property	401 McClatchy Way	School Investigation	No action required	9/22/2004
Setzer Forest Products, Inc	2570 3rd Street and 2630 5th Street	Voluntary Cleanup	No further action	4/3/2018
PG&E Manufactured Gas Plant SV-SA-SAC-3	South of Western End of Broadway	Evaluation	Inactive Needs Evaluation	10/6/1995
Miller Park	2701 Harbor View Dr	LUST Cleanup Site	Closed	5/23/1988
Tosco – 76 Broadway	76 Broadway St	Cleanup Program Site	Open-Remediation	9/27/2002

Site	Location	Type	Status	Year
ToSco Refining Co.	66 Broadway	Cleanup Program Site	Open-Verification Monitoring Land Use Restrictions	9/18/2012
Chevron Sacramento Terminal	2420 Front St	Cleanup Program Site	Open-Verification Monitoring	3/28/2012

Source: DTSC 2019; SWRCB 2015

With respect to sites that are currently undergoing cleanup and/or verification of cleanup, the Chevron Sacramento Terminal, Tosco Refining Co, and the Tosco 76 Broadway cleanup program sites are located in the northeastern portion of the Specific Plan Area, known as the tank farm, located west of Interstate 5 (I-5) and near Miller Park. The area was used as a bulk fuel facility during the 1900s and consisted of aboveground storage tanks, associated above- and below- ground piping, a loading rack, and several buildings. The aboveground storage tanks contain jet fuel A, diesel, unleaded gasoline, and unleaded supreme gasoline. Previous investigations performed at the facility indicated that soil and groundwater beneath the area has been impacted by petroleum hydrocarbons. Groundwater monitoring was initiated in 1988. Groundwater monitoring is currently conducted in conjunction with monitoring activities at the Chevron Bulk Fuel Terminal facility and the Former Tosco Terminal facility at 66 Broadway. A total of 20 wells are monitored at the Tosco 76 Broadway site. An additional 20 wells are monitored at the Former Tosco Terminal facility, and 50 wells are monitored at the Chevron Bulk Fuel Terminal (SWRCB 2015).

PG&E site has been identified by the DTSC and requires evaluation. A preliminary assessment completed by PG&E in 1986 states that a gas plant operated at the south edge of Broadway on the Sacramento River from 1914 until 1926. The plant was constructed by the Sacramento Gas Company which supplied both natural and manufactured gas to its customers. The facility used oil delivered by ship to manufacture its gas. PG&E purchased the plant in 1926. The plant was dismantled in 1926-1927 and PG&E supplied gas from its other manufactured gas plants in Sacramento. The site is currently occupied by oil storage tanks (DTSC 2019).

Airports

The Sacramento Executive Airport is the nearest public airport to the Specific Plan Area and is located at 6151 Freeport Boulevard, approximately 3 miles south of the Specific Plan Area. The Specific Plan Area is not located within height, noise, or safety restriction areas outlined in the Sacramento Executive Airport Comprehensive Land Use Plan (SACOG 1999).

The nearest private airport is located approximately 3.25 miles northwest of the Specific Plan Area at the California Highway Patrol Academy in West Sacramento.

Schools

Two schools, operated by the Sacramento City Unified School District, are located in the center of the Specific Plan Area. Leataata Floyd Elementary School, a public elementary school, is located at 401 McClatchy Way. Arthur A. Benjamin Health Professions High School, a public high school with a health care focus and theme, is located at 451 McClatchy Way.

In addition, two Sacramento Employment & Training Agency (SETA) Head Start preschools are located within the Specific Plan Area. The Alder Grove Early Learning Center is located at 816 Revere Street and the Marina Vista Early Learning Center is located at 263 Seavey Circle.

Although the Met Sacramento High School is not located within the Specific Plan Area, the campus is located within one-quarter mile of the Specific Plan Area. Project activities along Broadway and at or near

the existing Alder Grove housing project would be located approximately 1,070 feet or 0.20 mile from the high school campus. No other schools are located within one-quarter mile of the Specific Plan Area.

Wildfire Hazards

CAL FIRE maps identify fire hazard severity zones in state and local responsibility areas for fire protection. The Specific Plan Area is located within a local responsibility area for fire protection and is not located within or near a very high or high fire hazard severity zone (CAL FIRE 2007; CAL FIRE 2008).

The Specific Plan Area is a largely developed area and does not include any wildland areas. Therefore, the risk of wildland fire is low. However, older commercial buildings and older dwelling units in lower socio-economic neighborhoods located within the Specific Plan Area present an increased risk of urban fire. Structural fires can occur in any developed area; however, older building standards and fire codes used in the construction of these structures, use of non-fire-resistive construction materials, and lack of internal sprinklers or other fire safety systems may make these structures more susceptible to fires.

4.8.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The evaluation of potential hazards and hazardous materials is based on information obtained from available literature, including documents published by federal, State, County, and City agencies; applicable elements from the City of Sacramento 2035 General Plan; the City of Sacramento 2035 General Plan Master Environmental Impact Report; and City of Sacramento 2035 General Plan Background Report. The construction and operational characteristics of uses anticipated under the WBSP were evaluated against the hazardous materials information gathered from these sources to determine whether any risks to public health and safety or other conflicts would occur.

The California Supreme Court recently found that “agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project’s future users or residents.” In *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369, the Supreme Court explained that an agency is only required to analyze the potential impact of such hazards on future residents if the project would exacerbate those existing environmental hazards or conditions. CEQA analysis is therefore concerned with a project’s impact on the environment, rather than with the environment’s impact on a project and its users or residents. Thus, the City is not required to consider the effects of bringing a new population into an area where there are already hazardous materials or hazardous materials already transported on adjacent roadways or rail lines. However, in the interest of disclosure, this EIR discusses potential effects of the environment on people in the Specific Plan Area, including hazardous materials exposure.

THRESHOLDS OF SIGNIFICANCE

An impact related to hazards and hazardous materials is considered significant if implementation of the project would do any of the following:

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment;

- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- 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;
- impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;
- expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires;
- due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants, either directly or indirectly to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
- 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; and/or
- 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.

ISSUES NOT DISCUSSED FURTHER

The Specific Plan Area is not located within 2 miles of an airport or within a height, noise, or safety restriction area identified in a land use compatibility plan. As a result, no potential impacts related to safety hazards or excessive airport-related noise are anticipated. Therefore, this issue is not addressed further as part of this EIR.

The Specific Plan Area is also highly developed, with some areas of maintained open space/parkland, and is not located within or near a very high or high fire hazard severity zone identified in a state or local responsibility area (CAL FIRE 2007; CAL FIRE 2008). As such, the project would not result in impacts related to wildland fire risk and this issue is also not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.8-1: Exposure to Hazardous Materials During Construction

Construction of residential, commercial, industrial, and public facilities under the WBSP would involve the use, storage, and transport of hazardous materials. All such hazardous materials and activities would be typical for such uses, and would be expected to be used in compliance with local, state, and federal regulations, which would minimize but not eliminate the potential for upset or accident conditions. A Phase I ESA has not been completed for the Specific Plan Area, although one would be prepared for individual developments within it. As a result, unknown environmental conditions could be encountered during construction. The impact to the public and the environment from exposure to these unknown hazardous materials and other hazards during construction would be **potentially significant**.

Construction activities associated with residential, commercial, industrial, and public facilities would temporarily increase the regional transportation, use, storage, and disposal of hazardous materials and petroleum products such as gasoline, diesel fuel, lubricants, paints and solvents, and cement products, that are commonly used at construction sites. Improper handling or use of these materials, accidents that occur during transport, or releases during a fire or other emergency could result in accidents or upset of hazardous materials that could increase risk to people, including construction workers, the general public, and the environment. The extent of the risk would depend in large part on the type of material, the volume released, and the mechanism of release.

Implementation of the project would result in urban infill and redevelopment, which could necessitate demolition of existing structures, including the existing fuel storage tanks within the West Broadway Gateway subarea. Such demolition could result in exposure of construction personnel and the public to hazardous substances, such as asbestos, LBP or PCBs. Exposure pathways by which receptors could be exposed to hazardous materials include:

- direct dermal contact with hazardous materials;
- incidental ingestion of hazardous materials (e.g., if workers fail to wash their hands before eating, drinking, or smoking); and
- inhalation of airborne dust released from dried hazardous materials.

Various regulations and guidelines pertaining to abatement of, and protection from, exposure to asbestos and lead have been adopted for demolition activities. These requirements include: Sacramento Metropolitan Air Quality Management District's Rule 902 pertaining to asbestos abatement; Construction Safety Orders 1529 (pertaining to asbestos) and 1532.1 (pertaining to lead) from Title 8 of the California Code of Regulations; Part 61, Subpart M of the CFR (pertaining to asbestos); and lead exposure guidelines provided by the U.S. Department of Housing and Urban Development. In California, asbestos and lead abatement must be performed and monitored by contractors with appropriate certifications from the State Department of Health Services. In addition, Cal/OSHA has regulations concerning the use of hazardous materials, including requirements for safety training, availability of safety equipment, hazardous materials exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces the hazard communication program regulations, which include provisions for identifying and labeling hazardous materials, describing the hazards of chemicals, and documenting employee-training programs. All demolition that could result in the release of lead and/or asbestos must be conducted according to Cal/OSHA standards.

The identification, removal, and disposal of PCBs is regulated under RCRA (4 CFR 7610, TSCA (15 USC 2695) and California regulations (22 CCR 66261.24). Electrical transformers and older fluorescent light ballasts not previously tested and verified to not contain PCBs must be tested. If PCBs are detected above action levels, the materials must be disposed of at a licensed facility permitted to accept the materials.

The identification, removal, and disposal of mercury in fluorescent light tubes and switches is regulated under 22 CCR 67426.1 – 67428.1 and 66261.50. Under these regulations, the light tubes must be removed without breakage and disposed of at a licensed facility permitted to accept the materials.

The project applicant, builders, contractors, business owners, and others would be required to use, store, and transport hazardous materials in accordance with local, state, and federal regulations discussed above in "Regulatory Setting," including Cal/OSHA standards in Title 8 of the CCR to conduct on-site evaluations and issue notices of violations to enforce necessary improvements to health and safety practices and DTSC requirements under the RCRA, to implement permitting, inspection, compliance, and corrective action programs to ensure that people who manage hazardous

waste follow state and federal requirements. Transportation of hazardous materials on area roadways is also regulated by DOT, CHP, and Caltrans. As part of construction, a SWPPP and Construction Site Monitoring and Reporting Plan would be prepared and implemented that would include BMPs and other measures to prevent releases of hazardous materials and contain and clean-up any accidental releases that might occur.

In the Specific Plan Area, there are several sites, see Section 4.8.2, "Environmental Setting," that are listed on the Cortese List. It is possible that development under the WBSP would be located on a site that is included on the Cortese list. Development of any of these sites would be required to comply with all Cal/OSHA and DTSC requirements, regarding the evaluation and potential remediation of on-site soil conditions prior to development.

A major 24-inch gas transmission main, Line 108, runs through the Specific Plan Area. The line enters the Specific Plan Area from the north on 3rd Street to the intersection at Broadway and then runs easterly on Broadway to Muir Way where it turns southerly along Muir Way exiting at the southern WSBP boundary. This is identified by PG&E as a critical infrastructure facility. There is also a 20-inch high pressure distribution main located in Broadway from the easterly edge of I-5 that extends beyond the WBSP easterly boundary. Smaller gas pipelines, ranging in size from 2-inch to 6-inch diameter, are dispersed throughout the Marina Vista, Alder Grove, and William Land Woods developments. A 10-inch petroleum pipeline operated by Kinder Morgan crosses the Sacramento River from West Sacramento at the westerly end of Broadway. The pipeline turns southward just east of the railroad tracks and terminates at the existing fuel storage facility south of Broadway. These pipelines could produce hazardous conditions during construction in the event of an accident caused by construction activities. In response to the NOP, PG&E wrote a letter to the City dated July 11, 2018, regarding coordination between the utility provider and the project to ensure safety and accessibility of gas lines. Applicants of site-specific projects under the WBSP would be responsible for coordinating with PG&E to ensure appropriate measures are taken to allow for inspection, access, and ensure proper grading and excavating practices.

Compliance with federal, state, and local regulations and implementation of BMPs would minimize but not eliminate the risk of a spill or accidental release of hazardous materials during construction of development pursuant to the WBSP. Further, unknown and potentially hazardous environmental conditions could be encountered during construction. The impact on the public and the environment from exposure to these unknown hazardous materials and other hazards would be **potentially significant**.

Mitigation Measures

Mitigation Measure 4.8-1a: Complete a Phase I ESA and Implement Recommended Actions

A site-specific Phase I ESA shall be completed by project applicants for individual projects within the Specific Plan Area. Each Phase I ESA shall be performed in general conformance with the scope and limitations of ASTM E 1527-13 "Standard Practice for Environmental Site Assessments" and EPA "Standards and Practices for All Appropriate Inquires," 40 CFR Part 312. If existing hazardous materials contamination is identified in the Phase I ESA, and the Phase I ESA recommends further review, the project applicant shall retain a Registered Environmental Assessor or other qualified professional to conduct follow-up sampling to characterize the contamination and to identify and require appropriate remediation that shall be conducted. Recommendations may include, but are not limited to, guidance on mitigating hazards from encountering contaminated groundwater, including measures related to disturbance of existing treatment systems, drilling, groundwater extraction, or vapor intrusion. These recommendations shall be implemented, and the site shall be deemed remediated by the appropriate agency (DTSC or Sacramento County EMD) or Sacramento County shall issue a no further action letter before earth disturbance in the vicinity of the contamination.

Mitigation Measure 4.8-1b: Adhere to California Excavation Laws and Coordinate with Local Utilities to Ensure Safety and Accessibility of Pipelines

Before issuance of grading permits or improvement plans, project applicants shall coordinate with local utility providers to prepare final site design that adheres to pipeline setback recommendations. Project applicants shall coordinate with local utilities prior to and during construction to ensure appropriate inspection, access, grading, and excavation. Project applicants shall comply with Excavation Law detailed in the California Excavation Manual (USA North 811 2018) and Title 49 CFR Part 196, discussed in Section 4.8.1, "Regulatory Setting."

For projects located near gas pipelines owned or maintained by PG&E, project applicants shall coordinate with PG&E to ensure the following as appropriate:

- A PG&E Gas Transmission Standby Inspector must be present during any demolition or construction activity that comes within 10 feet of the gas pipeline.
- Access to gas pipelines shall be available at any time. Any construction equipment, materials, or spoils may need to be removed upon notice. Any temporary construction fencing installed within PG&E's easement would also need to be capable of being removed at any time upon notice.
- Weight limits shall be enforced whenever any equipment gets within 10 feet of traversing the pipe.
- A minimum of 36 inches of cover over gas pipelines (or existing grade if less) and a maximum of 7 feet of cover at all locations shall be required. The graded surface cannot exceed a cross slope of 1:4.
- Any digging within 2 feet of a gas pipeline shall be dug by hand. Note that while the minimum clearance is only 12 inches, any excavation work within 24 inches of the edge of a pipeline shall be done with hand tools.
- PG&E Pipeline Services must review and approve all plans to bore across or parallel to (within 10 feet) a gas transmission pipeline.
- All utility crossings of a gas pipeline should be made as close to perpendicular as feasible (90° +/- 15°). All utility lines crossing the gas pipeline must have a minimum of 12 inches of separation from the gas pipeline.
- No structures are to be built within the PG&E gas pipeline easement. This includes buildings, retaining walls, fences, decks, patios, carports, septic tanks, storage sheds, tanks, loading ramps, or any structure that could limit PG&E's ability to access its facilities.
- Permanent fencing is not allowed within PG&E easements except for perpendicular crossings which must include a 16-foot-wide gate for vehicular access.
- Landscaping must be designed to allow PG&E to access the pipeline for maintenance and not interfere with pipeline coatings or other cathodic protection systems.
- Any proposed facilities, such as metal conduit, pipes, service lines, ground rods, anodes, wires, etc. that might affect the pipeline cathodic protection system must be reviewed and approved by PG&E Corrosion Engineering.
- Pipeline marker signs that are in direct conflict with proposed developments may only be temporarily relocated to accommodate construction work with prior written approval from PG&E Pipeline Services.
- Any plans that impact PG&E's facilities must be reviewed and approved by PG&E to ensure that no impact occurs which may endanger the safe operation of its facilities.

Significance after Mitigation

Implementation of Mitigation Measures 4.8-1a and b would identify areas of unknown hazardous materials, adhere to recommended setbacks from transmission lines, and implement construction hazardous materials management plans in the Specific Plan Area. These measures reduce potential hazards to workers, the public, and the environment associated with use of hazardous materials and exposure to potentially contaminated soil during project construction. Because these mitigation measures would ensure that hazardous conditions are avoided or removed from the site, the impacts from exposure to hazardous material during construction in the Specific Plan Area would be **less than significant**.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. Similar to the proposed WBSP, all future development within the Specific Plan Area would be required to comply with applicable federal, state, and local regulations and implementation of BMPs, however, the potential to encounter unknown environmental conditions, including potentially hazardous soil conditions, exists. As a result, potential impacts related to risks to people or structures would also be considered potentially significant and would require implementation of Mitigation Measures 4.8-1a and b, which would reduce impacts to **less-than-significant** levels, similar to the proposed WBSP.

Impact 4.8-2: Exposure to Hazardous Materials During Operation

During the operation of land uses associated with implementation of the WBSP, the transport, use, and disposal of hazardous or potentially hazardous materials would occur. General commercial and household hazardous materials are typically handled and transported in small quantities and would be required to comply with regulations covering the use, storage, and disposal of hazardous materials and wastes. Any businesses that would store hazardous materials and/or waste at its business site would be required by the State of California Office of Emergency Services to submit business information and hazardous materials inventory forms contained in a Hazardous Materials Management Plan and/or HMBP. With adherence to existing regulatory requirements, impacts related to routine use or disposal of hazardous materials would be minimized. Additionally, future discretionary projects in the Specific Plan Area would be subject to environmental review in which any potential exposure to hazardous materials sites would be addressed in accordance with existing laws and regulations adopted to protect public and environmental health. Because compliance with all applicable laws and regulations at the federal, State, and local levels would prevent exposure of individuals and the environment to hazards, this impact would be **less than significant**.

During the operation of uses within the Specific Plan Area, the storage, use, and disposal of hazardous materials would be associated with residential, commercial, and industrial uses. Household hazardous materials such as household cleaners, paint, landscape maintenance chemicals, and hazardous materials similar to those used during construction could also be used periodically as part of operation, maintenance, and repair of facilities and infrastructure. Fluorescent lamps and tubes would be disposed as hazardous waste and would be recycled, taken to a household hazardous waste disposal facility, or a universal waste handler. Chemicals used for landscape maintenance, such as fertilizers and pesticides, would be used in limited quantities, in accordance with instructions provided by the manufacturer. Transportation of hazardous materials is regulated by the DOT, CHP and Caltrans, which together determine driver-training requirements, load labeling procedures, and container specifications designed to minimize the risk of accidental release. Businesses that use or store hazardous materials above reportable quantities would be required to prepare and submit a HMBP to the Sacramento County EMD. Pursuant to Chapter 6.95 of the California Health and Safety Code

(Hazardous Materials Release Response Plans and Inventory), operators of any commercial and industrial facilities would be required to prepare and implement a HMBP and inventory of hazardous materials, if inventory would exceed threshold quantities of 500 pounds or more of solids, 55 gallons or more of liquids, 200 cubic feet or more of compressed gases, or include extremely hazardous substances. The HMBP would be prepared before occupancy of subject buildings and would include:

- an inventory of hazardous materials handled,
- facility floor plans showing where hazardous materials are stored,
- an emergency response plan, and
- provisions for employee training in safety and emergency response procedures.

Because numerous laws and regulations govern the transportation and management of hazardous materials to reduce the potential hazards, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. Similar to the proposed WBSP, all future development within the Specific Plan Area would be required to comply with applicable federal, state, and local regulations related to the transport, use, and disposal of hazardous materials. As a result, potential impacts related to risks to people or structures during operation of uses allowed under the WBSP would be **less than significant**, similar to the proposed WBSP.

Impact 4.8-3: Exposure of School Sites to Hazardous or Acutely Hazardous Materials, Substances, or Waste within 0.25 mile of a Proposed School

Leataata Floyd Elementary School and Arthur Benjamin Health Professional High School are located within the Specific Plan Area. In addition, two other child care centers are located within Specific Plan Area. The use of common construction and household hazardous materials would be required during construction and operation of land uses associated with implementation of the WBSP. However, the anticipated uses under the WBSP are not typically associated with the use of substantial quantities of acutely hazardous materials. Furthermore, the use, transport, and storage of such materials would be regulated by the DOT, CHP, Caltrans, and EMD and businesses would be required to implement HMBPs. This impact would be **less than significant**.

Four school sites are located within the Specific Plan Area and one school site is located within 0.25 mile of the Specific Plan Area, see Section 4.8.2, “Environmental Setting.” No changes will be made directly to the Leataata Floyd Elementary School and Arthur A. Benjamin Health Professions High School sites. However, an urban farm would be constructed on the western portion of the Leataata Floyd Elementary School and the Mill at Broadway residential community is located directly north and east of the school sites. The Alder Grove Early Learning Center and the Marina Vista Early Learning Center could be impacted by potential redevelopment and reconfigurations of the Alder Grove and Marina Vista subareas. In addition, construction along Broadway could result in exposure to hazardous materials at the Met High School campus.

Construction activities within the Specific Plan Area would require the use of limited quantities of hazardous materials such as fuels for construction equipment; oils and lubricants; paints and thinners; and solvents and cleaners. These materials would be transported to and from the Specific Plan Area

and would pass near schools. The improper handling and transport of hazardous materials could result in accidental release of hazardous materials near schools, thereby exposing school occupants to hazardous materials.

Operation of the urban farm and existing and proposed residences near schools within the Specific Plan Area would involve the use of small quantities of common hazardous materials including paints and thinners, cleaning solvents, and fuels, oils, and lubricants.

As discussed in the Regulatory Setting, transportation of hazardous materials is regulated by the DOT, CHP, and Caltrans. Together, federal and State agencies determine driver-training requirements, load labeling procedures, and container specifications designed to minimize the risk of accidental release. In addition, businesses that use hazardous materials, including construction companies, are required to prepare and implement HMBPs describing procedures for the handling, transportation, generation, and disposal of hazardous materials. Finally, construction on sites larger than one acre would be required to comply with the Construction General Permit and implement a SWPPP and its associated BMPs to control runoff from the given site, such that the potential for transport of materials from one site to the next (and near a school) would be minimal. Because numerous laws and regulations govern the transportation and management of hazardous materials to reduce the potential hazards, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

Implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. Development elsewhere within the Specific Plan Area would be similar to the proposed WBSP. All future development within the Specific Plan Area under this option would also be required to comply with applicable federal, state, and local regulations related to the transport, use, and disposal of hazardous materials, the potential for accidental release of emissions proximate to a school is considered minimal. Impacts would be **less than significant**, similar to the proposed WBSP.

Impact 4.8-4: Impair Implementation of or Physically Interfere with an Emergency Response Plan or Emergency Evacuation Area

Development under the WBSP may require temporary road closures during construction that could restrict the movement of vehicular traffic and may interfere with emergency response or emergency evacuation. Once operational, a future developments pursuant to the WBSP would not interfere with emergency response and would ensure adequate access. Because construction activities within the Specific Plan Area could result in roadway closures and could interfere with an emergency response plan or emergency evacuation area, impacts would be **potentially significant**.

Depending on the nature of a future development project within the Specific Plan Area, temporary road closures may be required that could restrict the movement of vehicular traffic. The duration and extent of closures would depend on the duration of construction, number of trucks, truck routing, and a variety of other construction-related activities that are unknown at this time. Lane restrictions or temporary closures could restrict emergency vehicle access locally and could conflict with an emergency response plan or emergency evacuation area.

Upon completion of development pursuant to the WBSP, temporary lane closures would no longer be required and the existing road network would allow for emergency response or evacuation. As part of

the WBSP, several circulation improvements would be provided within the Specific Plan Area, including the extension of 6th Street, increased circulation within the Alder Grove, Marina Vista, and Industrial subareas. New construction would be required to ensure that adequate site egress and emergency access is provided in accordance with building code requirements.

Because the construction of future development could require temporary road closures that could restrict vehicular access and could impede with emergency access within the Specific Plan Area, impacts related to an adopted emergency response plan or emergency evacuation plan would be **potentially significant**.

Mitigation Measures

Mitigation Measure 4.8-4: Prepare Construction Traffic Management Plan
Implement Mitigation Measure 4.12-7.

Significance after Mitigation
Implementation of Mitigation Measure 4.8-4 would require implementation of Mitigation 4.12-7 which involves the preparation of a construction traffic management plan. The plan would identify detour routes, provide advance warning and signage concerning street/lane closures, and maintain safe and efficient access routes for emergency vehicles. In addition, the plan would be subject to review and approval by the City Department of Public Works, in consultation with local emergency service providers. Because this mitigation measure would ensure that acceptable operating conditions on local roadways are maintained, implementation of the WBSP would not interfere with an emergency response plan or emergency evacuation area and this impact would be **less than significant**.

Scenario B Option

If selected, implementation of the Scenario B option would retain the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. Construction activities within the Specific Plan Area under this option could require the temporary closure of existing roadways/lanes, as well as large numbers of trucks and employee trips entering and exiting the area. Therefore, because of the extent and duration of construction that may occur within the Specific Plan Area and the associated potential for prolonged lane closures, damage to roadbeds, and traffic hazards to bikes/pedestrians, potential transportation-related impacts during construction would require implementation of Mitigation Measure 4.12-7 to ensure that impacts would be reduced to **less-than-significant** levels, similar to the proposed WBSP.

CUMULATIVE IMPACTS

Impact 4.8-5: Potential for the Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Hazards and Hazardous Materials

Implementation of the WBSP, in combination with other cumulative development in the area, would involve development and redevelopment activities within the Specific Plan Area. Through adherence to applicable regulatory requirements and implementation of project-specific mitigation, the contributions of individual projects under the WBSP within the cumulative context would be less than cumulatively considerable. Impacts would be **less than significant**.

Although some hazardous materials releases can cover a large area and interact with other releases (e.g., atmospheric contamination, contamination of groundwater aquifers), incidents of hazardous materials contamination are more typically isolated to a small area, such as leaking underground

storage tank sites or release at individual businesses. These relatively isolated areas of contamination typically do not interact in a cumulative manner with other sites of hazardous materials contamination. However, if construction would create a new site of contamination, or contribute substantially to a hazardous condition in the general area, it could be considered to contribute to a cumulative impact. Impacts related to emergency vehicle access and response are considered site specific and not cumulatively considerable.

There are several contamination sites documented within the Specific Plan Area. However, the assessment, cleanup, and monitoring of these sites would be required prior to any further development. Unknown environmental conditions, including potential hazardous materials, may exist within the Specific Plan area, due to the wide range of land uses and long history of chemical use, described under Section 4.8.2, “Environmental Setting.” Due to the proximity of documented contamination sites, historical land use, and proximity to a major roadway there is potential for contamination to be encountered during construction. With implementation of Mitigation Measures 4.8-1a, a Phase I ESA would be conducted to identify hazardous materials contamination and appropriately remediate and identified contamination. Mitigation Measure 4.8-1b would ensure appropriate inspection, access, grading, and excavation and would require compliance with excavation law and pipeline setback recommendations.

Transportation of hazardous materials is regulated by the DOT, CHP, and Caltrans and driver-training requirements, load labeling procedures, and container specifications are required to minimize the risk of accidental release. Businesses that use hazardous materials, during both construction and operation, are required to prepare and implement HMBPs describing procedures for the handling, transportation, generation, and disposal of hazardous materials.

Given the limited potential for hazardous materials contamination to occur as a result of the construction, the legal requirements to clean up any releases, and the limited potential for any project-generated contamination to interact on a cumulative basis with other incidents of contamination, the WBSP (with implementation of Mitigation Measures 4.8-1a and b) would not make a cumulatively considerable contribution to a significant cumulative impact related to hazardous materials. Therefore, this would be a **less-than-significant** cumulative impact.

Mitigation Measures

No additional mitigation is required to reduce the WBSP’s contribution to cumulative impacts.

4.9 HYDROLOGY AND WATER QUALITY

This section identifies the regulatory context and policies related to hydrology and water quality, describes the existing hydrologic conditions within and near the West Broadway Specific Plan (WBSP) Specific Plan Area (Specific Plan Area), and evaluates potential hydrology and receiving water-quality impacts associated with implementation of the WBSP. Potential effects on the capacity of City of Sacramento water-supply, sewer/wastewater, and drainage/stormwater facilities are addressed in Section 3.15, “Utilities and Service Systems.”

In response to the Notice of Preparation for this EIR, a comment letter was received from the Central Valley Regional Water Quality Control Board (CVRWQCB) that identified applicable regulations and potential permitting needs associate with implementation of the WBSP.

4.9.1 Regulatory Setting

FEDERAL

Clean Water Act

The U.S. Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) is the primary federal law that governs and authorizes water quality control activities by EPA as well as the states. Various elements of the CWA address water quality. These are discussed below.

CWA Water Quality Criteria/Standards

Pursuant to federal law, EPA has published water quality regulations under Title 40 of the Code of Federal Regulations (CFR). Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the act, water quality standards consist of designated beneficial uses of the water body in question and criteria that protect the designated uses. Section 304(a) requires EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. As described in the discussion of state regulations below, the State Water Resources Control Board (State Water Board) and its nine regional water quality control boards (RWQCBs) have designated authority in California to identify beneficial uses and adopt applicable water quality objectives.

CWA Section 303(d) Impaired Waters List

Under Section 303(d) of the CWA, states are required to develop lists of water bodies that do not attain water quality objectives after implementation of required levels of treatment by point source dischargers (municipalities and industries). Section 303(d) requires that the state develop a total maximum daily load (TMDL) for each of the listed pollutants. The TMDL is the amount of the pollutant that the water body can receive and still comply with water quality objectives. The TMDL is also a plan to reduce loading of a specific pollutant from various sources to achieve compliance with water quality objectives. In California, implementation of TMDLs is achieved through water quality control plans, known as Basin Plans, of the State RWQCBs. See “State Plans, Policies, Regulations, and Laws,” below.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. NPDES permit regulations have been established for broad categories of discharges including point source waste discharges and nonpoint source stormwater runoff. Each NPDES permit identifies limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits.

"Nonpoint source" pollution originates over a wide area rather than from a definable point. Nonpoint source pollution often enters receiving water in the form of surface runoff and is not conveyed by way of pipelines or discrete conveyances. Two types of nonpoint source discharges are controlled by the NPDES program: discharges caused by general construction activities and the general quality of stormwater in municipal stormwater systems. The goal of the NPDES nonpoint source regulations is to improve the quality of stormwater discharged to receiving waters to the maximum extent practicable. The RWQCBs in California are responsible for implementing the NPDES permit system (see the discussion of State Regulatory Setting below).

National Flood Insurance Act

The Federal Emergency Management Agency (FEMA) is tasked with responding to, planning for, recovering from and mitigating against disasters. The Federal Insurance and Mitigation Administration within FEMA is responsible for administering the National Flood Insurance Program (NFIP) and administering programs that aid with mitigating future damages from natural hazards.

FEMA prepares Flood Insurance Rate Maps (FIRMs) that delineate the regulatory floodplain to assist local governments with the land use planning and floodplain management decisions needed to meet the requirements of NFIP. Floodplains are divided into flood hazard areas, which are areas designated per their potential for flooding, as delineated on FIRMs. Special Flood Hazard Areas are the areas identified as having a one percent chance of flooding in each year (otherwise known as the 100-year flood). In general, the NFIP mandates that development is not to proceed within the regulatory 100-year floodplain, if the development is expected to increase flood elevation by 1 foot or more.

STATE

California Porter-Cologne Act

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Board and each of the nine RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Clean Water Act. The applicable RWQCB for WBSP is the Central Valley RWQCB. The State Water Board and the Central Valley RWQCB have the authority and responsibility to adopt plans and policies, regulate discharges to surface and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substances, sewage, or oil or petroleum products.

Under the Porter-Cologne Act, each RWQCB must formulate and adopt a water quality control plan (known as a "Basin Plan") for its region. The Basin Plan for the Central Valley Region includes a comprehensive list of waterbodies within the region and detailed language about the components of applicable Water Quality Objectives (WQOs). The Basin Plan recognizes natural water quality, existing

and potential beneficial uses, and water quality problems associated with human activities throughout the Sacramento and San Joaquin River Basins. Through the Basin Plan, the Central Valley RWQCB executes its regulatory authority to enforce the implementation of TMDLs, and to ensure compliance with surface WQOs. The Basin Plan includes both narrative, and numerical WQOs designed to provide protection for all designated and potential beneficial uses in all its principal streams and tributaries. Applicable beneficial uses include municipal and domestic water supply, irrigation, non-contact and contact water recreation, groundwater recharge, freshwater replenishment, hydroelectric power generation, and preservation and enhancement of wildlife, fish, and other aquatic resources.

The Central Valley RWQCB also administers the adoption of waste discharge requirements (WDRs), manages groundwater quality, and adopts projects within its boundaries under the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit).

NPDES Construction General Permit for Stormwater Discharges Associated with Construction Activity

The State Water Board adopted the statewide NPDES General Permit in August 1999. The state requires that projects disturbing more than one acre of land during construction file a Notice of Intent with the RWQCB to be covered under this permit. Construction activities subject to the General Permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non stormwater discharges to storm sewer systems and other waters. A stormwater pollution prevention plan (SWPPP) must be developed and implemented for each site covered by the permit. The SWPPP must include best management plans (BMPs) designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the project; the BMPs must address source control and, if necessary, pollutant control.

NPDES Stormwater Permit for Discharges from Small Municipal Separate Storm Sewer Systems

The Municipal Stormwater Permitting Program regulates stormwater discharges from municipal separate storm sewer systems (MS4s). Stormwater is runoff from rain or snow melt that runs off surfaces such as rooftops, paved streets, highways or parking lots and can carry with it pollutants such as oil, pesticides, herbicides, sediment, trash, bacteria and metals. The runoff can then drain directly into a local stream, lake or bay. Often, the runoff drains into storm drains which eventually drain untreated into a local waterbody.

The City of Sacramento is covered under an MS4 General Permit (Order No. R5-2016-0040, NPDES No. CAS0085324). This permit requires the implementation of controls to reduce the discharge of pollutants in stormwater discharges to the maximum extent practicable, including management practices, control techniques and systems, design and engineering methods, and other measures. As part of permit compliance, the City has prepared a stormwater quality improvement plan (SQIP), which outlines the requirements for municipal operations, industrial and commercial businesses, illegal discharges, construction sites, planning and land development, public outreach and education, and watershed stewardship. These requirements include measures to prevent the release of pollutants in stormwater discharge and are reflected in City ordinances and design standards. New development and redevelopment projects included under the WBSP would be required to adhere to the requirements of the latest edition of the *Stormwater Quality Design Manual for the Sacramento Region*.

California Water Code

The California Water Code is enforced by the California Department of Water Resources (DWR). The mission of DWR is "to manage the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments." DWR is responsible for promoting California's general welfare by ensuring beneficial water use and development statewide.

Groundwater Management

Groundwater Management is outlined in the California Water Code, Division 6, Part 2.75, Chapters 1-5, Sections 10750 through 10755.4. The Groundwater Management Act was first introduced in 1992 as Assembly Bill (AB) 3030 and has since been modified by Senate Bill (SB) 1938 in 2002, AB 359 in 2011, and the Sustainable Groundwater Management Act (SB 1168, SB 1319, and AB 1739) in 2014. The intent of the Acts is to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdictions and to provide a methodology for developing a Groundwater Management Plan.

The Sustainable Groundwater Management Act of 2014 (SGMA) became law on January 1, 2015, and applies to all groundwater basins in the state (Water Code Section 10720.3). By enacting the SGMA, the legislature intended to provide local agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater within their jurisdiction (Water Code Section 10720.1).

Pursuant to the SGMA, any local agency that has water supply, water management or land use responsibilities within a groundwater basin may elect to be a "groundwater sustainability agency" for that basin (Water Code Section 10723). The Sacramento Central Groundwater Authority has notified DWR that it has elected to become a GSA pursuant to Water Code Section 10723.8, and intends to undertake sustainable groundwater management in area roughly coincident with the Sacramento Valley Groundwater Basin, South American Subbasin.

Central Valley Flood Protection Act

The Central Valley Flood Protection Act of 2008 establishes the 200-year flood event as the minimum level of protection for urban and urbanizing areas. As part of the state's FloodSAFE program, those urban and urbanizing areas protected by flood control project levees must receive protection from the 200-year flood event level by 2025. The DWR and Central Valley Flood Protection Board (CVFPB) collaborated with local governments and planning agencies to prepare the 2012 Central Valley Flood Protection Plan (CVFPP), which the CVFPB adopted on June 29, 2012. The objective of the 2012 CVFPP is to create a system-wide approach to flood management and protection improvements for the Central Valley and San Joaquin Valley. The Central Valley Flood Protection Act calls for updates to the CVFPP every 5-years. In August 2017, the 2017 CVFPP Update was adopted and now serves as the long-range plan that guides the State's participation in managing flood risk in the Central Valley.

State Plan of Flood Control

Section 9110(f) of the California Water Code defines the SPFC as follows, "'State Plan of Flood Control' means the state and federal flood control works, lands, programs, plans, policies, conditions, and mode of maintenance and operations of the Sacramento River Flood Control Project described in Section 8350, and of flood control projects in the Sacramento River and San Joaquin River watersheds authorized pursuant to Article 2 (commencing with Section 12648) of Chapter 2 of Part 6 of Division 6 for which the board or the department has provided the assurances of nonfederal cooperation to the United States, and those facilities identified in Section 8361."

The SPFC encompasses a wide network of facilities, which range from major structures such as levees, drainage pumping plants, drop structures, dams and reservoirs, and major channel improvements, to minor components such as stream gauges, pipes, and bridges.

LOCAL

City of Sacramento 2035 General Plan

The City of Sacramento 2035 General Plan includes the following goals and policies related to hydrology and water quality.

GOAL EC 2.1: Flood Protection. Protect life and property from flooding.

- **Policy EC 2.1.11: New Development.** The City shall require evaluation of potential flood hazards prior to approval of development projects and shall regulate development in urban and urbanizing areas per state law addressing 200-year level of flood protection.
- **Policy EC 2.1.12: New Development Design.** The City shall require new development located within a special (100-year) flood hazard area to be designed to minimize the risk of damage in the event of a flood.
- **Policy EC 2.1.14: Levee and Floodway Encroachment Permit.** The City shall require applicants to secure an encroachment permit from the Central Valley Flood Protection Board for any project that falls within the jurisdiction regulated by the Board (e.g., levees, designated floodways).
- **Policy EC 2.1.15: Levee Setbacks for New Development.** The City shall require adequate setbacks from flood control levees consistent with local, regional, State, and Federal design and management standards.
- **Policy EC 2.1.17: Levees for Infill Development.** The City shall support the construction of levees that can increase levee stability and improve site characteristics, recreation, and river access where infill development and redevelopment occurs next to a levee.

GOAL ER 1.1: Water Quality Protection. Protect local watersheds, water bodies and groundwater resources, including creeks, reservoirs, the Sacramento and American Rivers, and their shorelines.

- **Policy ER 1.1.3: Stormwater Quality.** The City shall control sources of pollutants and improve and maintain urban runoff water quality through storm water protection measures consistent with the City's National Pollution Discharge Elimination System (NPDES) Permit.
- **Policy ER 1.1.4: New Development.** The City shall require new development to protect the quality of water bodies and natural drainage systems through site design (e.g., cluster development), source controls, storm water treatment, runoff reduction measures, best management practices (BMPs) and Low Impact Development (LID), and hydromodification strategies consistent with the city's NPDES Permit.
- **Policy ER 1.1.5: Limit Stormwater Peak Flows.** The City shall require all new development to contribute no net increase in stormwater runoff peak flows over existing conditions associated with a 100-year storm event.

- **Policy ER 1.1.6: Post-Development Runoff.** The City shall impose requirements to control the volume, frequency, duration, and peak flow rates and velocities of runoff from development projects to prevent or reduce downstream erosion and protect stream habitat.
- **Policy ER 1.1.7: Construction Site Impacts.** The City shall minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City's erosion and sediment control ordinance and stormwater management and discharge control ordinance.

City of Sacramento Municipal Code

Chapter 13.16 is known as the Stormwater Management and Discharge Control Code. This chapter mandates point source and/or treatment controls to minimize long-term, post-construction discharge of stormwater pollutants from new development or modifications to existing development. Specific control measures must be developed to reduce the risk of non-stormwater discharges and/or pollutant discharge into the City's drainage system or other receiving waters.

Chapter 15.88 is known as grading ordinance. This chapter includes rules and regulations to control land disturbances, landfill, soil storage, pollution, and erosion and sedimentation resulting from construction activities. The grading ordinance establishes procedures for issuance, administration and enforcement of permits for such activities.

City of Sacramento Department of Utilities Engineering Services Policy No. 0001

All new groundwater discharges to the City's stormwater and/or sewer systems are regulated and monitored by the City's Utilities Department under Engineering Services Policy No. 0001, adopted as Resolution No. 92-439 by the Sacramento City Council. Groundwater discharges to the City's system are defined as construction dewatering discharges, foundation or basement discharges, treated or untreated contaminated groundwater cleanup, discharges, and uncontaminated groundwater discharges.

The City requires that any short-term discharge be permitted, or an approved Memorandum of Understanding (MOU) for long-term discharges be established between the discharger and the City, Short-term limited discharges of seven-days duration or less must be approved through the City Department of Utilities by acceptance letter. Long-term discharges of greater duration than seven days must he approved through the City Department of Utilities and the Director of the Department of Utilities through the MOU process. The MOU must specify the type of groundwater discharge, flow rates, discharge system design, a City-approved contaminant assessment of the proposed groundwater discharge indicating tested levels of constituents, and a City-approved effluent monitoring plan to ensure contaminant levels remain in compliance with State standards or the Sacramento County Regional Sanitation District and CVRWQCB-approved levels. All groundwater discharges to the sewer must be granted a discharge permit from the Sacramento County Regional Sanitation District. If the discharge is part of a groundwater cleanup effort or contains excessive contaminants, CVRWQCB approval is also required.

4.9.2 Environmental Setting

HYDROLOGY AND DRAINAGE

Regional and Local Hydrology

The City of Sacramento is located at the confluence of the Sacramento and American Rivers. The Specific Plan Area lies adjacent to the east side of the Sacramento River, approximately 2 miles south of the aforementioned confluence with the American River. The total length of the Sacramento River is approximately 327 miles with a drainage area that includes approximately 27,200 square miles. The drainage area is bound by the Sierra Nevada to the east, the Coast Ranges to the west, the Cascade Range and Trinity Mountains to the north, and the Delta-Central Sierra to the south. The Sacramento River is the principal stream in the basin. Major tributaries include the Pit and McCloud Rivers which join the Sacramento River from the north, and the American and Feather Rivers which are tributaries from the east. Numerous tributary creeks flow from the east and west.

The Sacramento River basin captures approximately 22 million acre-feet of runoff annually. The melting snowpack in the Sierra Nevada maintains stream flow during most of the summer. The Sacramento River system experiences water level variations throughout the month and year. Two factors affecting water level are the amount of runoff entering the system from watersheds and releases from upriver dams. The system is also subject to tidal influences from the Sacramento-San Joaquin Delta. Finally, the river channel is confined by a levee system on each bank of the river. During periods of high flows, primarily in the winter, a system of bypass channels allows water to leave the river channel and bypass the urbanized areas of the valley, thus reducing potential flood hazard. Chief of these in the project vicinity is the Yolo Bypass, which is located north and west of the confluence with the American River.

The Sacramento River, beginning at the “I” Street Bridge and including all portions downstream, is considered part of the Delta. Flooding has historically been a problem for Sacramento, prompting the City to build levees beginning in the 1860’s. The Specific Plan Area is approximately 1.2 miles downstream of the I Street Bridge, to the east of the river.

The American River drains the central portion of the Sierra Nevada from the crest near Lake Tahoe to the reservoir at Folsom Lake, and the secondary reservoir below it at Nimbus Dam. The American River basin drains an area of roughly 1,875 square miles. An average of 2.2 million acre-feet drains from the basin annually. The Lower American River comprises the 24-mile stretch of river below Nimbus Dam to the confluence. Flows in the Lower American River are controlled by releases from Folsom Dam and Nimbus Dam.

Stormwater Drainage

The Central City area of Sacramento, including the Specific Plan Area, is served by a system in which sanitary sewage and storm drainage are collected and conveyed in the same system of pipelines, referred to as the Combined Sewer System, to the Sacramento Regional Wastewater Treatment Plant (SRWTP). When flows exceed capacity of the SRWTP, flows are diverted to the Combined Wastewater Treatment Plant or the Pioneer Reservoir Treatment Plant. Treated water is then discharged to the Sacramento River, consistent with the WDRs for the City of Sacramento Combined Wastewater Collection and Treatment System for Sacramento County (RWQCB Order R5-2015-0045, NPDES No. CA0079111).

Flood Conditions

The Specific Plan Area includes a levee that separates Miller Regional Park and the Marina/Miller Regional Park Special Study Area from the rest of the Specific Plan Area. As shown in Figure 4.9-1, Miller Regional Park includes the Sacramento Marina and is designated as Zone AE – Special (100-year) Flood Hazard Area (City of Sacramento 2015:Figure 7.2). The remainder of the Specific Plan Area is designated as Zone X – Moderate (100 to 500-year) Flood Hazard Area and is within the 200-year floodplain (City of Sacramento 2015:Figure 7.3).

Groundwater Hydrology

The majority of the City's water supply comes from a combination of surface water from the American and Sacramento Rivers, with supporting groundwater supplies pumped from the area (City of Sacramento 2015:4-25). The City of Sacramento overlies two subbasins of the Sacramento Valley Groundwater Basin, the North American and South American subbasins. The two subbasins are separated and recharged from the American River. The Specific Plan Area is within the South American subbasin. Multiple water purveyors use groundwater from the subbasins, including the City of Sacramento. The City operates 22 municipal groundwater supply wells, 20 of which are in the North American subbasin and 2 in the South American subbasin (City of Sacramento 2016:3-4). Recharge to the local aquifer system occurs along active river and stream channels where extensive sand and gravel deposits exist, particularly along the American, Cosumnes, and Sacramento River channels (SCWA 2004:14).

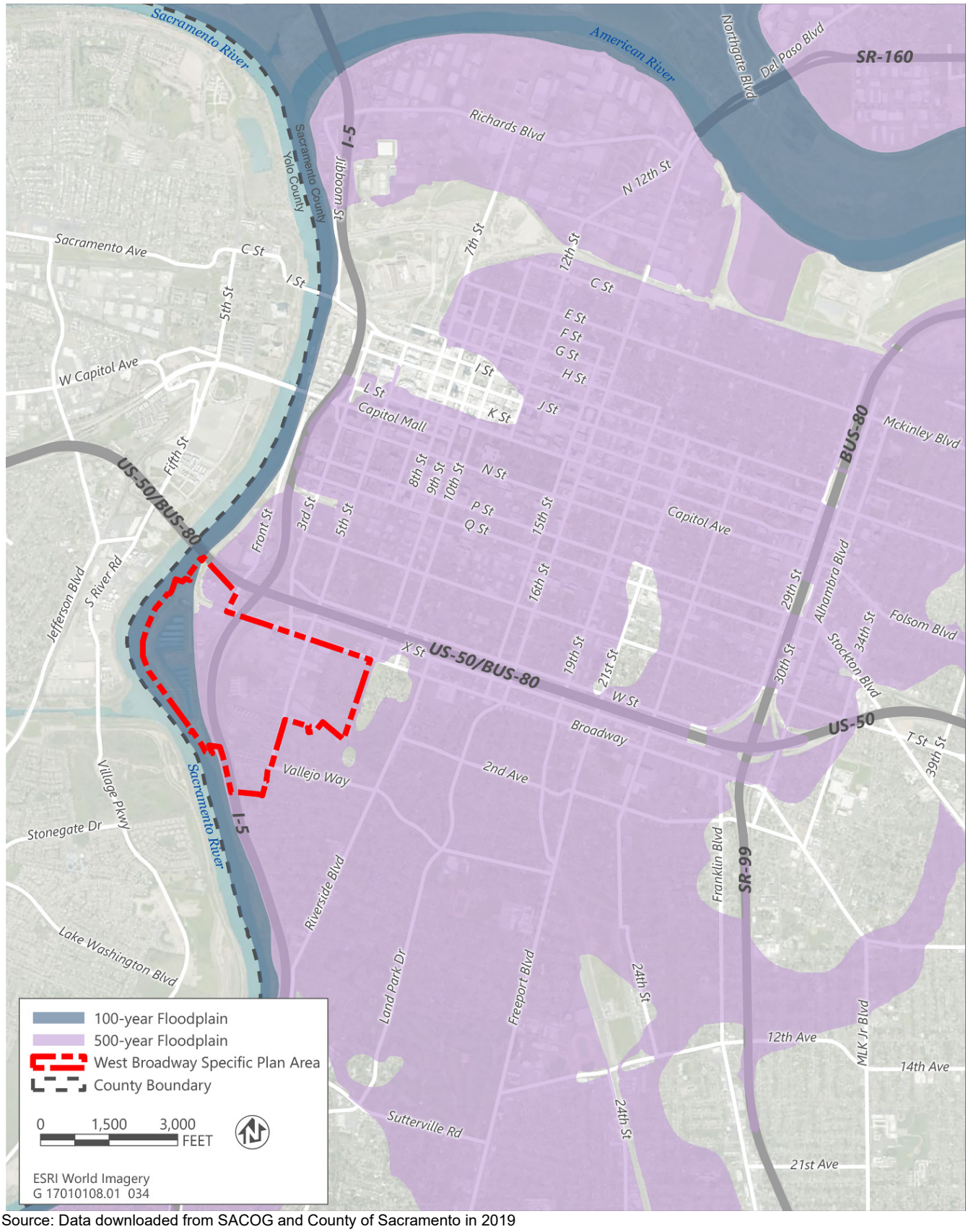
WATER QUALITY

Surface Water Quality

The Sacramento River has been classified by the CVRWQCB as having numerous beneficial uses, including providing a municipal, agricultural, and recreational water supply. Other beneficial uses include freshwater habitat, spawning grounds, wildlife habitat, and navigation on the Sacramento River. The Sacramento River Basin covers approximately 27,210 square miles and includes the entire area drained by the Sacramento River. For planning purposes, this includes all watersheds tributary to the Sacramento River that are north of Cosumnes River watershed. It also includes the closed basin of Goose Lake and drainage sub-basins of Cache and Putah Creeks. The principal streams are the Sacramento River and its larger tributaries: the Pit, Feather, Yuba, Bear, and American Rivers to the east; and Cottonwood, Stony, Cache, and Putah Creeks to the west. Major reservoirs and lakes include Shasta, Oroville, Folsom, Clear Lake, and Lake Berryessa.

Reaches of the Sacramento River flow through the Sacramento urban area that are considered impaired and listed on the CWA Section 303(d) list of impaired and threatened waters for California. Section 303(d) establishes the TMDL process to assist in guiding the application of state water quality standards, requiring the states to identify streams in which water quality is impaired (affected by the presence of pollutants or contaminants) and to establish the TMDL or the maximum quantity of a particular contaminant that a water body can assimilate without experiencing adverse effects. The 303(d) list breaks up the Sacramento River into four sections, Keswick Dam to Cottonwood Creek, Cottonwood Creek to Red Bluff, Red Bluff to Knights Landing, and Knights Landing to the Delta. All sections of the Sacramento River are listed on the 303(d) list for unknown toxicity, and Red Bluff to the Delta is also listed for mercury. Mercury is primarily a legacy of gold mining (EPA 2018).

Ambient water quality in the Sacramento and American Rivers is influenced by numerous natural and artificial sources, including soil erosion, discharges from industrial and residential wastewater plants, stormwater runoff, agriculture, recreation activities, mining, and timber harvesting.



Source: Data downloaded from SACOG and County of Sacramento in 2019

Figure 4.9-1 Flood Zones within and in the Vicinity of the Specific Plan Area

Groundwater Quality

Groundwater quality can be affected by many things, but the chief controls on the characteristics of groundwater quality are the source and chemical composition of recharge water, properties of the host sediment, and history of discharge or leakage of pollutants.

This section is focused on the South American subbasin, because groundwater quality within this subbasin is separated from that of the North American subbasin, except at much greater depths. The South American subbasin covers approximately 248,000 acres (388 square miles) and lies within the southernmost extent of the Sacramento Valley Basin, extending into northern portions of the Delta. Except for areas of localized groundwater contamination, groundwater underlying the City's service area generally meets primary and secondary drinking water standards for municipal water use, and is described as being calcium magnesium-bicarbonate type water, with minor fractions of sodium-magnesium bicarbonate. Due to high concentrations of iron and manganese in the lower aquifer system, the upper aquifer system is usually the preferred source of groundwater. The lower aquifer system also contains higher concentrations of total dissolved solids than the upper aquifer. (City of Sacramento 2015:6-50)

4.9.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential hydrologic and water quality impacts is based on a review of existing documents and studies that address water resources in the vicinity of the project. Information obtained from these sources was reviewed and summarized to describe existing conditions and to identify potential environmental effects, based on the standards of significance presented in this section. In determining the level of significance, the analysis assumes that the project would comply with relevant federal, state, and local laws, ordinances, and regulations.

THRESHOLDS OF SIGNIFICANCE

An impact on hydrology or water quality is considered significant if implementation of the WBSP would do any of the following:

- violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;
- substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- 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 that would
  - result in substantial erosion or siltation on- or off-site;
  - result in flooding on-site or off-site;
  - create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

- be located in flood hazard, tsunami, or seiche zones, and /or risk release of pollutants due to project inundation; and/or
- conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

As noted above, potential effects on the availability and reliability of the City of Sacramento's water supply, including groundwater, is addressed in Section 3.15, "Utilities and Service Systems." For this reason, the second threshold listed above and as evaluated within this section focuses on the potential for implementation of the WBSP to interfere with groundwater recharge.

ISSUES NOT DISCUSSED FURTHER

The Specific Plan Area is not located near the Pacific Ocean or other body of water that could generate a tsunami. While a seiche could occur within the Sacramento River, it is highly unlikely because the river is only partially enclosed. Because the risk of tsunami or seiche is extremely low, flood hazards related to tsunami or seiche are not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.9-1: Construction-Related Effects on Water Quality

Construction associated with the development of uses under the WBSP would include land disturbance that could result in soil erosion, sedimentation, or release of pollutants into receiving waters. However, compliance with applicable federal, state, and local regulations and standards, including acquisition of and adherence to permits, mandate implementation of best management practices to minimize potential effects on water quality and establish discharge limits. Adherence to applicable regulations and standards would ensure that water quality effects from construction activities would be **less than significant**.

Construction activities within the Specific Plan Area may include various land-disturbing activities (e.g., grading, excavation, and trenching), which would expose soils and increase the potential for soil erosion and sedimentation in runoff. In addition, improper use/storage of fuels, oils, or other construction-related hazardous construction materials could also pose a threat to surface or groundwater quality. Sediment and contaminants may be transported to local creeks, the Sacramento or American Rivers, and downstream drainages and water bodies. Due to shallow groundwater conditions, project construction may also require dewatering activities, which has the potential to impair receiving waters if the dewatering discharge is laden with sediment or contaminants. Although ground-disturbing activities associated with project construction would be temporary, on-site or off-site erosion, siltation, and discharge of pollutants could degrade downstream water quality.

However, development within the Specific Plan Area and under the WBSP would be required to comply with several regulations designed to reduce or eliminate construction-related water quality effects, including the NPDES General Construction Permit, SQIP, Stormwater Management and Discharge Control Code, Grading Ordinance, and a project-specific dewatering discharge permit. Before initiation of any construction activities that would disturb one acre or more, an application for coverage under the General Construction Permit, as well as an erosion and sediment control plan, must be submitted to the City. Before construction may begin, a SWPPP would be developed and a notice of intent (NOI) filed with the CVRWQCB. Following approvals of coverage under the General Construction Permit, the erosion and sediment control plan, and the SWPPP are obtained, construction would begin and include

all BMPs in detailed in the erosion and sediment control plan and SWPPP. BMPs may consist of a wide variety of measures to reduce pollutants in stormwater and other non-point source runoff. The City would inspect each development site, as development occurs, to verify proper implementation of the erosion and sediment control plan and SWPPP.

The City would also require the erosion and sediment control plans to include BMPs designed to minimize the potential for, and effects from, spills of hazardous, toxic, or petroleum substances during construction activities for all contractors. Implementation of these measures would comply with federal and state water quality regulations. The federal reportable spill quantity for petroleum products, as defined in 40 CFR 110, is any oil spill that:

- violates applicable water quality standards;
- causes a file or sheen on, or discoloration of, the water surface or adjoining shoreline; or
- causes a sludge or emulsion to be deposited beneath the surface of the water or adjoining shoreline.

If a spill occurs, the contractor's superintendent shall notify the City, and the contractor would take action to contact the appropriate safety and clean-up crews to ensure that a Spill Prevention and Control Program is followed. In addition, the City would respond and investigate any reported spills. A written description of the reportable release would be prepared by the contractor or landowner and submitted to the CVRWQCB and California Department of Toxic Substances Control (DTSC). If an appreciable spill occurs and results determine that construction activities have adversely affected surface water or groundwater quality, a detailed analysis would be performed to the specifications of DTSC to identify the likely cause of contamination. The analysis would include recommendations for reducing or eliminating the source or mechanisms of contamination. Based on this analysis, contractors would select and implement measures to control contamination, with a performance standard that surface water and/or groundwater quality must be returned to baseline conditions. These measures would be subject to approval by the City and/or CVRWQCB.

Prior to discharge of dewatered effluent, the contractor would be required to obtain a project-specific permit from CVRWQCB that includes specific requirements and establishes discharge limits. A project-specific permit is required because the Specific Plan Area is located above areas of known groundwater contamination.

The combination of developed and undeveloped conditions within the Specific Plan Area, compliance with the City's erosion and sediment control ordinance and stormwater management and discharge control ordinance, SQIP, NPDES Construction General Permit, and project-specific dewatering permit would prevent substantial degradation of water quality during project construction. These regulatory instruments are designed to ensure that discharges from construction projects do not result in violation of the State Water Board's water quality objectives. For the foregoing reasons, adherence to applicable regulations and standards would reduce water quality impacts from construction activities to a **less-than-significant** level.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. However,

similar to the proposed WBSP, all future development within the Specific Plan Area would be required to comply with applicable federal, state, and local requirements related to the control of erosion and construction-related materials such that the potential for water quality impacts related to construction activities pursuant to the WBSP would be minimized. As a result, potential impacts related to risks to water quality during construction would also be **less than significant**, similar to the proposed WBSP.

Impact 4.9-2: Operational Effects on Water Quality

Project operation would include impervious surfaces which could allow pollutants in urban runoff to degrade the quality of receiving waters. The City has existing policies and programs designed to reduce stormwater pollution, including the MS4 General Permit. Compliance with applicable regulations and standards would ensure that water quality effects from project operation would be **less than significant**.

During operation of the WBSP, runoff would contain pollutants common to urban runoff, including metals, oils and grease, pesticides, herbicides, nutrients, pet waste, and garbage. Without BMPs to remove these pollutants, stormwater leaving the Specific Plan Area could degrade the quality of receiving waters. The City of Sacramento currently implements the SQIP, which is designed to reduce stormwater pollution to the maximum extent practicable and eliminate prohibited non-stormwater discharges through an NPDES municipal stormwater discharge permit. The City also provides direction on post-construction BMPs in the *Stormwater Quality Design Manual for the Sacramento Region*. The project would be subject to City 2035 General Plan Policies ER 1.1.3, ER 1.1.4, ER 1.1.5, and ER 1.1.6 (listed above); the City's ordinances; the SQIP; and the *Stormwater Quality Design Manual for the Sacramento Region*. Specifically, the project would be required to comply with the following permits and plans:

- *Stormwater Quality Design Manual for the Sacramento Region* BMPs and LID measures to reduce pollutants in stormwater and non-stormwater discharges to the maximum extent practicable;
- City of Sacramento Stormwater Management and Discharge Control Code; and
- City of Sacramento 2035 General Plan policies related to hydrology and water quality, and the protection and preservation of natural resources.

Permanent on-site water quality treatment meeting the requirements specified in the *Stormwater Quality Design Manual for the Sacramento Region* will be required for any applicable project with surface drainage in the Specific Plan Area. Specific BMPs are approved for use in the City for treatment control, such as stormwater planters, vegetated swales, and media filters in catch basins. Other potential BMPs for use on private parcels have not been identified because plan design in an early phase and the BMPs used on each site would differ based on design-level details and site conditions. The plan development process includes identification of BMPs that respond to the design and construction methods within each area of the WBSP. The BMPs would be implemented to ensure that water quality would not be degraded and violation of water quality or waste discharge objectives set by the State Water Board would not occur. City review would confirm that BMP implementation complies with all applicable regulations and standards. Because regulations and standards are in place to ensure that development in the Specific Plan Area would not result in an impact to water quality, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. However, similar to the proposed WBSP, all future development within the Specific Plan Area would implement on-site BMPs to prevent the degradation of water quality and prevent water quality from exceeding applicable water quality standards or waste discharge requirements. As a result, potential impacts related to operational water quality would also be **less than significant**, similar to the proposed WBSP.

Impact 4.9-3: Substantially Alter the Drainage Pattern of the Specific Plan Area Such that Substantial Erosion, Flooding, or Polluted Runoff Could Occur

The WBSP would involve the redevelopment of the Specific Plan Area but would not substantially alter drainage patterns on-site or in the area such that additional and substantial erosion, flooding, or water quality impacts could occur. While a portion of the Specific Plan Area is located within the 100-year flood zone, this area is limited to the Marina/Miller Regional Park Special Study Area, and redevelopment under the WBSP would not involve the placement of substantial fill or structures that could substantially alter flood flows along the Sacramento River. Further, the remainder of the Specific Plan Area is currently developed, and its redevelopment under the WBSP would not substantially alter drainage patterns in the area. This impact would be **less than significant**.

Over the course of the City's history, floods have been the most frequent and considerable natural hazard affecting the City's environment and economy. There are three different types of flood events in the Sacramento area: flash, riverine, and urban stormwater. These floods are often the result of severe weather and excessive rainfall, either in the city or in areas upstream of the city, such as the Sacramento River watershed in the northern portion of the valley. Flood hazards can be defined based on the potential to be affected by a 100-year (1% annual chance of inundation), 200-year (0.5% annual chance of inundation), or 500-year flood (0.2% annual chance of inundation).

As discussed in the Environmental Setting, the Marina/Miller Regional Park Special Study Area is located within the 100-year flood hazard area (Zone AE), while the remainder of the Specific Plan Area is located outside of the 100-year flood hazard area (Zone X – Moderate [100 to 500-year)). As part of the WBSP, Miller Regional Park and the Marina would be reconfigured to allow for greater variety of recreational opportunities such that marina-related operations (i.e., the use of boat slips) would be concentrated within the southern portion of the special study area and a water sports basin with lawn area would be provided in the northern portion of the existing marina. Modifications to the marina would occur to the east of the Sacramento River and would not involve modifications to the flow, direction, or capacity of the Sacramento River. Further, no major structures would be located within this zone such that flood flows, should they occur, could be redirected and cause additional flooding elsewhere. As noted above, all future development of residential and mixed-use facilities within the Specific Plan Area would occur within Zone X and is considered to a have a reduced flood zone risk due to the existing levee along the Sacramento River. Therefore, development undertaken pursuant to the WBSP would not place structures within identified flood zones, and no redirected flood flows or subsequent flooding would result.

The proposed bridgeway crossings of the marina and the Sacramento River that may occur as part of implementation of the WBSP could involve the placement of abutments and piers within the Sacramento River and/or at the marina entrance. As the proposed bridge crossings would be intended to allow for bicycles and pedestrians only, the size of the bridge piers and abutments are anticipated to be relatively small in size and scale such that they would not impede flood flows within the Sacramento River or result in the redirection of flood flows. The exact dimensions of each pier and/or abutment

would be subject to further design and engineering, as well as hydrologic modeling to ensure that flood flows are not impeded but would be anticipated to provide a minimum of 2 feet of freeboard between flood flows and the deck of the bridge during a 50-year flood event and a minimum of 1 foot of freeboard during a 100-year event. As a result, the potential bridge crossings would not be anticipated to impede flood flows or result in redirection of flood flows.

As noted above, the Specific Plan Area is largely developed and pervious surfaces are limited to landscaped areas within existing parkland or adjacent to residential structures. Development that may occur as part of WBSP implementation would likely include similar greenspaces and pervious surfaces such that the potential increase in impervious surfaces would be minimal. However, as specific site designs have yet to be completed, it is assumed, for the purposes of this analysis, that implementation of the WBSP could create new impervious surfaces which could reduce the ability of the site to capture rainwater and could affect runoff, including the potential for erosion, in the immediate vicinity. Although the addition of impervious surfaces could concentrate runoff and increase runoff from the developed areas of the Specific Plan Area, each project to be approved under the WBSP would be required (by City policy) to incorporate on-site BMPs and LID stormwater management measures that would infiltrate stormwater on-site to the maximum extent possible. This may include on-site stormwater detention, which would be designed to capture and infiltrate additional runoff generated by proposed developed during a 100-year storm event. Additional LID features would be integrated into each project design to capture and infiltrate stormwater at the source of runoff. Such LID stormwater management components would continue to allow rainwater infiltration and would minimize the potential affects to groundwater recharge.

Development within the Specific Plan Area may create impervious surfaces which could increase the overall volume of runoff within the vicinity of the project. However, implementation of BMPs and LID stormwater management components would infiltrate precipitation on site would minimize potential impacts to runoff/erosion. Further, as noted above, implementation of the WBSP is not anticipated to impede or redirect flood flows such that additional flooding could occur. This would be a **less-than-significant** impact.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. However, similar to the proposed WBSP, all future development within the Specific Plan Area would be required to comply with applicable 2035 General Plan policies and implement on-site BMPs and LID stormwater management components. As a result, potential impacts associated with modifications to existing drainage patterns would also be **less than significant**, similar to the proposed WBSP.

Impact 4.9-4: Interfere Substantially with Groundwater Recharge

Buildout of the WBSP would add impervious surfaces to the area, which could reduce the land available for groundwater recharge. However, the land along the Sacramento River would remain the primary location for groundwater recharge. Adherence to applicable regulations regarding dewatering and discharges would ensure that project effects on groundwater supply, quality, and recharge would be **less than significant**.

As discussed in the Environmental Setting, the Specific Plan Area overlies the South American subbasin of the Sacramento Valley Groundwater Basin. Section 4.13, "Utilities and Service Systems," evaluates impacts related to supplying potable water to development in the Specific Plan Area. As noted above in Impact 4.9-3, development of the Specific Plan Area under the WBSP could increase the overall level of impervious surfaces, which would reduce the ability for precipitation to percolate down to the aquifer, thereby reducing groundwater recharge. However, as noted above, on-site LID and BMPs would be incorporated into each project's design, consistent with the City's 2035 General Plan policies, such that the overall level of impermeability is not anticipated to increase with WBSP implementation. Further and as noted above, implementation of the WBSP would not involve modifications to the flow or capacity of the Sacramento River, which is the main source of groundwater recharge in the vicinity of the Specific Plan Area. Implementation of the City's Standard Specification for Dewatering, the CVRWQCB's General Dewatering Permit, and NPDES General Construction Permit BMPs would prevent impacts to groundwater quality during construction. During operation, the WBSP would not include dewatering activities or direct use of groundwater. Compliance with the same regulations discussed in Impact 4.8.2 above would also result in implementation of BMPs for source control and treatment to prevent contamination in stormwater runoff.

For the reasons discussed above, the project would result in a **less-than-significant** impact related to groundwater supply, recharge, and quality.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. However, similar to the proposed WBSP, all future development within the Specific Plan Area would be required to comply with applicable 2035 General Plan policies and incorporate LID components and BMPs to retain/detain rainwater on-site. As a result, potential impacts to groundwater recharge would also be **less than significant**, similar to the proposed WBSP.

CUMULATIVE IMPACTS

Impact 4.9-5: Potential for the Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Hydrology and Water Quality

Development of past, present, and future projects in the area, including the WBSP, could have a significant cumulative effect on hydrology and water quality due to changes in permeability of land surfaces and the potential for increased pollutants within groundwater and surface water. Adherence to the policies, permits, and regulations would ensure that the WBSP's contribution to the significant cumulative impact would be less than cumulatively considerable, and this impact would be **less than significant**.

Water Quality

Non-point source water pollution from the combination of past, present, and future projects in the Sacramento River watershed and the Delta, including residential, commercial, and industrial land use and development, agriculture, parks, transit, infrastructure, and other land uses, have contributed to a general degradation of water quality over time. With increased urbanization, new land uses and associated impermeable surfaces have resulted in runoff of various pollutants into local and regional waterways. A variety of programs have been implemented with the goal of halting degradation of water

quality and reversing this trend. Several state and federal agencies are involved in these programs, many of which are required by or originate in the federal Clean Water Act. Nonetheless, a cumulative adverse water quality condition exists.

The City of Sacramento currently implements the SQIP, which is designed to reduce stormwater pollution to the maximum extent practicable and eliminate prohibited non-stormwater discharges through its NPDES MS4 permit. The City also provides direction on post-construction BMPs in the *Stormwater Quality Design Manual for the Sacramento Region*. As noted above, development of the Specific Plan Area would be required to meet the requirements of the City's 2035 General Plan policies (ER 1.1.3, ER 1.1.4, ER 1.1.5, ER 1.1.6, and ER 1.1.7); City ordinances; the SQIP; the *Stormwater Quality Design Manual for the Sacramento Region*; the NPDES General Construction Permit; CVRWQCB General Dewatering Permit; and the City's MS4 permit. As discussed in Impacts 4.9-1 and 4.9-2, compliance with these policies, permits, and regulations would reduce the generation of water pollutants to the maximum extent practicable, consistent with the goals of the State Water Board and CVRWQCB water quality criteria and stormwater regulations through the use of structural and non-structural BMPs. Therefore, the WBSP's contribution to the significant cumulative impact would be less than cumulatively considerable, and this impact would be **less than significant**.

Flooding

Cumulative development within the City of Sacramento could substantially increase the exposure of people and/or property to flood risk, particularly if development is located within a FEMA flood hazard zone or the 200-year floodplain. The EIR prepared for the 2035 General Plan identified that growth within the City and region would increase population in the future (City of Sacramento 2014:4.7-17). This growth would likely increase exposure to flood risk. This is considered a significant cumulative impact.

As described above, most of the Specific Plan Area is located within an area designated by FEMA to be protected from the 100-year flood primarily by levees. During operation, the project would not expose people or property to the risk of loss, injury, damage, or death in the event of a flood nor would it place structures that could impede or redirect flood flows within the floodplain during construction. Further, as described previously, policies proposed under the Sacramento 2035 General Plan include levee requirements, new development evaluations, and regional flood management planning efforts (Policies EC 2.1.2 through 2.1.21). Development projects would not be approved unless flood risk is consistent with plans that are aimed to provide a 200-year flood protection standard for the entire city (Policy EC 2.1.11) and would be consistent with on-going planning associated with the CVFPB. Therefore, the project would have a less-than-considerable contribution and this impact would be **less than significant**.

Groundwater

While new development in the area, including within the Specific Plan Area, is less likely to significantly degrade groundwater quality because of existing regulations, older development, agriculture, and other non-point sources would continue to impair groundwater quality. This is considered a significant cumulative impact. However, as noted above, the WBSP would not introduce new uses that are anticipated to affect groundwater and it would not substantially interfere with groundwater recharge. Development within the Specific Plan Area would be required to meet the water quality regulations listed in the regulatory setting and Impact 4.9-4 to prevent degradation of groundwater quality. Therefore, implementation of the WBSP would not be cumulatively considerable, and the impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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4.10 NOISE AND VIBRATION

This section includes a summary of applicable regulations related to noise and vibration, a description of ambient-noise conditions, and an analysis of potential short-term construction and long-term operational-source noise impacts associated with the West Broadway Specific Plan (WBSP) (project). Mitigation measures are recommended as necessary to reduce significant noise impacts. Additional data is provided in Appendix F, "Noise Modeling Results."

No comments regarding noise and vibration were received in response to the Notice of Preparation for the EIR.

4.10.1 Regulatory Setting

FEDERAL

U.S. Environmental Protection Agency Office of Noise Abatement and Control

The U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate Federal noise control activities. In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at more local levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to state and local governments. However, documents and research completed by the EPA Office of Noise Abatement and Control continue to provide value in the analysis of noise effects.

Federal Transit Administration

To address the human response to ground vibration, the Federal Transit Administration (FTA) has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines are presented in Table 4.10-1.

Table 4.10-1 Ground-Borne Vibration (GBV) Impact Criteria for General Assessment

Land Use Category	GVB Impact Levels (VdB re 1 micro-inch/second)		
	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations.	65 [4]	65 [4]	65 [4]
Category 2: Residences and buildings where people normally sleep.	72	75	80
Category 3: Institutional land uses with primarily daytime uses.	75	78	83

Notes: VdB = vibration decibels referenced to 1 µ inch/second and based on the root mean square (RMS) velocity amplitude.

[1] "Frequent Events" is defined as more than 70 vibration events of the same source per day.

[2] "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

[3] "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.

[4] This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define acceptable vibration levels.

Source: FTA 2018:124.

STATE

California General Plan Guidelines

The State of California General Plan Guidelines 2017, published by the California Governor's Office of Planning and Research (OPR) (2017), provides guidance for the compatibility of projects within areas of specific noise exposure. Acceptable and unacceptable community noise exposure limits for various land use categories have been determined to help guide new land use decisions in California communities. In many local jurisdictions, these guidelines are used to derive local noise standards and guidance. Citing EPA materials and the State Sound Transmissions Control Standards, the State's general plan guidelines recommend interior and exterior CNEL of 45 and 60 decibels (dB) for residential units, respectively (OPR 2017:378).

California Department of Transportation

In 2013, Caltrans published the Transportation and Construction Vibration Manual (Caltrans 2013a). The manual provides general guidance on vibration issues associated with construction and operation of projects in relation to human perception and structural damage. Table 4.10-2 presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

Table 4.10-2 Caltrans Recommendations Regarding Levels of Vibration Exposure

PPV (in/sec)	Effect on Buildings
0.4-0.6	Architectural damage and possible minor structural damage
0.2	Risk of architectural damage to normal dwelling houses
0.1	Virtually no risk of architectural damage to normal buildings
0.08	Recommended upper limit of vibration to which ruins and ancient monuments should be subjected
0.006-0.019	Vibration unlikely to cause damage of any type

Notes: PPV= Peak Particle Velocity; in/sec = inches per second

Source: Caltrans 2013a:24.

LOCAL

City of Sacramento 2035 General Plan

The City of Sacramento 2035 General Plan includes the following goals and policies related to noise and vibration.

GOAL EC 3.1: Noise Reduction. Minimize noise impacts on human activity to ensure the health and safety of the community.

- **Policy EC 3.1.1: Exterior Noise Standards.** The City shall require noise mitigation for all development where the projected exterior noise levels exceed those shown in Table [4.10-3], to the extent feasible.

Table 4.10-3 Exterior Noise Compatibility Standards for Various Land Uses

Land Use Type	Highest Level of Noise Exposure That Is Regarded as "Normally Acceptable"[1] (L_{dn}[2] or CNEL[3])
Residential—Low Density Single Family, Duplex, Mobile Homes	60 dBA[4,5]
Residential—Multi-family[7]	65 dBA
Urban Residential Infill[8] and Mixed-Use Projects[9,10]	70 dBA
Transient Lodging—Motels, Hotels	65 dBA
Schools, Libraries, Churches, Hospitals, Nursing Homes	70 dBA
Auditoriums, Concert Halls, Amphitheaters	Mitigation based on site-specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site-specific study
Playgrounds, Neighborhood Parks	70 dBA
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75 dBA
Office Buildings—Business, Commercial and Professional	70 dBA
Industrial, Manufacturing, Utilities, Agriculture	75 dBA

Notes:

1. As defined in the Guidelines, "Normally Acceptable" means that the "specified land use is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise insulation requirements."
2. L_{dn} or Day Night Average Level is an average 24-hour noise measurement that factors in day and night noise levels.
3. CNEL or Community Noise Equivalent Level measurements are a weighted average of sound levels gathered throughout a 24-hour period.
4. Applies to the primary open space area of a detached single-family home, duplex, or mobile home, which is typically the backyard or fenced side yard, as measured from the center of the primary open space area (not the property line). This standard does not apply to secondary open space areas, such as front yards, balconies, stoops, and porches.
5. dBA or A-weighted decibel scale is a measurement of noise levels.
6. The exterior noise standard for the residential area west of McClellan Airport known as McClellan Heights/Parker Homes is 65 dBA.
7. Applies to the primary open space areas of townhomes and multi-family apartments or condominiums (private year yards for townhomes; common courtyards, roof gardens, or gathering spaces for multi-family developments).These standards shall not apply to balconies or small attached patios in multistoried multi-family structures.
8. With land use designations of Central Business District, Urban Neighborhood (Low, Medium, or High) Urban Center (Low or High), Urban Corridor (Low or High).
9. All mixed-use projects located anywhere in the City of Sacramento
10. See notes d and g above for definition of primary open space areas for single-family and multi-family developments. New Development.

Source: Governor's Office of Planning and Research, State of California General Plan Guidelines 2003, October 2003.

- **Policy EC 3.1.2 Exterior Incremental Noise Standards.** The City shall require noise mitigation for all development that increases existing noise levels by more than the allowable increment shown in Table [4.10-4], to the extent feasible.

Table 4.10-4 Exterior Incremental Noise Impact Standards for Noise-Sensitive Uses (dBA)

Residences and buildings where people normally sleep[1]		Institutional land uses with primarily daytime and evening uses[2]	
Existing L_{dn}	Allowable Noise Increment	Existing Peak Hour L_{eq}	Allowable Noise Increment
45	8	45	12
50	5	50	9
55	3	55	6
60	2	60	5

Residences and buildings where people normally sleep[1]		Institutional land uses with primarily daytime and evening uses[2]	
Existing L_{dn}	Allowable Noise Increment	Existing Peak Hour L_{eq}	Allowable Noise Increment
65	1	65	3
70	1	70	3
75	0	75	1
80	0	80	0

Source: Federal Transit Administration, Transit Noise Impact and Vibration Assessment, May 2006

1. This category includes homes, hospitals, and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.

2. This category includes schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, meditation, and concentration on reading material

- **Policy EC 3.1.3: Interior Noise Standards.** The City shall require new development to include noise mitigation to assure acceptable interior noise levels appropriate to the land use type: 45 dBA L_{dn} (with windows closed) for residential, transient lodgings, hospitals, nursing homes and other uses where people normally sleep; and 45 dBA L_{eq} (peak hour with windows closed) for office buildings and similar uses.

- **Policy EC 3.1.4: Interior Noise Review for Multiple, Loud Short-Term Events.** In cases where new development is proposed in areas subject to frequent, high-noise events (such as aircraft over-flights, or train and truck pass-bys), the City shall evaluate substantiated noise impacts on any sensitive receptors from such events when considering whether to approve the development proposal, taking into account potential for sleep disturbance, undue annoyance, and interruption in conversation, to ensure that the proposed development is compatible within the context of its surroundings.

- **Policy EC 3.1.5: Interior Vibration Standards.** The City shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City or Federal Transit Administration (FTA) criteria.

- **Policy EC 3.1.7: Vibration.** The City shall require an assessment of the damage potential of vibration-induced construction activities, highways, and rail lines in close proximity to historic buildings and archaeological sites and require all feasible measures be implemented to ensure no damage would occur.

- **Policy EC 3.1.8: Operational Noise.** The City shall require mixed-use, commercial, and industrial projects to mitigate operational noise impacts to adjoining sensitive uses when operational noise thresholds are exceeded.

- **Policy EC 3.1.9: Compatibility with Park and Recreation Uses.** The City shall limit the hours of operation of parks and active recreation areas in residential areas to minimize disturbance to residences.

- **Policy EC 3.1.10: Construction Noise.** The City shall require development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on these uses, to the extent feasible.

- **Policy EC 3.1.11: Alternatives to Sound Walls.** The City shall encourage the use of design strategies and other noise reduction methods along transportation corridors in lieu of sound walls to mitigate noise impacts and enhance aesthetics.

City of Sacramento Municipal Code (Noise Control Ordinance)

The Sacramento Municipal Code includes noise regulations in Title 8—Health and Safety, Chapter 8.68—Noise Control (referred to generally as the Noise Control Ordinance). The following provisions are applicable to the project.

Section 8.68.060 – Exterior Noise Standards:

a. The noise standards that apply to all agricultural and residential properties are:

   1. From seven a.m. to ten p.m. the exterior noise standard shall be fifty-five (55) dBA.

   2. From ten p.m. to seven a.m. the exterior noise standard shall be fifty (50) dBA.

b. It is unlawful for any person at any location to create any noise which causes the noise levels when measured on agricultural or residential property to exceed for the duration of time set forth following, the specified exterior noise standards in any one hour by:

Cumulative Duration of the Intrusive Sound	Allowance Decibels
Cumulative period of 30 minutes per hour	0
Cumulative period of 15 minutes per hour	+5
Cumulative period of 5 minutes per hour	+10
Cumulative period of 1 minute per hour	+15
Level not to be exceeded for any time per hour	+20

Source: Sacramento Municipal Code 6.68.060

c. Each of the noise limits specified in subsection B of this section shall be reduced by five dBA for impulsive or simple tone noises, or for noises consisting of speech or music.

d. If the ambient noise level exceeds that permitted by any of the first four noise categories specified in subsection B of this section, the allowable noise limit shall be increased in five dBA increments in each category to encompass the ambient noise level. If the ambient noise level exceeds the fifth noise level category, the maximum ambient noise level shall be the noise limit for that category.

Section 8.68.070 - Interior Noise Standards:

a. In any apartment, condominium, townhouse, duplex or multiple dwelling unit it is unlawful for any person to create any noise from inside his or her unit that causes the noise level when measured in a neighboring unit during the periods ten p.m. to seven a.m. to exceed:

   1. Forty-five (45) dBA for a cumulative period of more than five minutes in any hour;

   2. Fifty (50) dBA for a cumulative period of more than one minute in any hour;

   3. Fifty-five (55) dBA for any period of time.

b. If the ambient noise level exceeds that permitted by any of the noise level categories specified in subsection A of this section, the allowable noise limit shall be increased in five dBA increments in each category to encompass the ambient noise level.

4.10.2 Environmental Setting

ACOUSTIC FUNDAMENTALS

Before discussing the noise setting for the project, background information about sound, noise, vibration, and common noise descriptors is needed to provide context and a better understanding of the technical terms referenced throughout this section.

Sound, Noise, and Acoustics

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a human ear. Noise is defined as loud, unexpected, annoying, or unwanted sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

Frequency

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz, or thousands of hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

Sound Pressure Levels and Decibels

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (mPa). One mPa is approximately one hundred billionth (0.00000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 mPa. Because of this large range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of decibels (dB).

Addition of Decibels

Because decibels are logarithmic units, SPLs cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness at the same time, the resulting sound level at a given distance would be 3 dB higher than if only one of the sound sources was producing sound under the same conditions. For example, if one idling truck generates an SPL of 70 dB, two trucks idling simultaneously would not produce 140 dB; rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level approximately 5 dB louder than one source.

A-Weighted Decibels

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within this range better than sounds of the same amplitude with frequencies outside of this range. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an "A-weighted" sound level (expressed in units of A-weighted decibels) can be computed based on this information.

The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgment correlates well with the A-scale sound levels of those sounds. Thus, noise levels are typically reported in terms of A-weighted decibels. All sound levels discussed in this section are expressed in A-weighted decibels. Table 4.10-5 describes typical A-weighted noise levels for various noise sources.

Table 4.10-5 Typical A-Weighted Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 feet	— 100 —	
Gas lawn mower at 3 feet	— 90 —	
Diesel truck at 50 feet at 50 miles per hour	— 80 —	Food blender at 3 feet, Garbage disposal at 3 feet
Noisy urban area, daytime, Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet, Normal speech at 3 feet
Commercial area, Heavy traffic at 300 feet	— 60 —	
Quiet urban daytime	— 50 —	Large business office, Dishwasher next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime	— 30 —	Library, Bedroom at night
Quiet rural nighttime	— 20 —	
	— 10 —	Broadcast/recording studio
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013b: Table 2-5

Human Response to Changes in Noise Levels

The doubling of sound energy results in a 3-dB increase in the sound level. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different from what is measured.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear can discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000–8,000 Hz) range. In general, the healthy human ear is most sensitive to sounds between 1,000 and 5,000 Hz and perceives both higher and lower frequency sounds of the same magnitude with less intensity (Caltrans 2013b:2-18). In typical noisy environments, changes in noise of 1–2 dB are generally not perceptible. However, it is widely accepted that people can begin to detect

sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness (Caltrans 2013b:2-10). Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound would generally be perceived as barely detectable.

Vibration

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, (e.g., operating factory machinery) or transient in nature (e.g., explosions). Vibration levels can be depicted in terms of amplitude and frequency, relative to displacement, velocity, or acceleration.

Vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV and RMS vibration velocity are normally described in inches per second (in/sec) or in millimeters per second. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is typically used in the monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings [Federal Transit Administration (FTA) 2018:110, Caltrans 2013b:6].

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a 1-second period. As with airborne sound, the RMS velocity is often expressed in decibel notation as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration (FTA 2006:7-4; Caltrans 2013a:7). This is based on a reference value of 1 micro inch per second.

The typical background vibration-velocity level in residential areas is approximately 50 VdB. Ground vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (FTA 2006:7-8; Caltrans 2013a:27).

Typical outdoor sources of perceptible ground vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur to fragile buildings. Construction activities can generate sufficient ground vibrations to pose a risk to nearby structures. Constant or transient vibrations can weaken structures, crack facades, and disturb occupants (FTA 2006:7-5).

Vibrations generated by construction activity can be transient, random, or continuous. Transient construction vibrations are generated by blasting, impact pile driving, and wrecking balls. Continuous vibrations are generated by vibratory pile drivers, large pumps, and compressors. Random vibration can result from jackhammers, pavement breakers, and heavy construction equipment.

Table 4.10-6 summarizes the general human response to different ground vibration-velocity levels.

Table 4.10-6 Human Response to Different Levels of Ground Noise and Vibration

Vibration-Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

Notes: VdB = vibration decibels referenced to 1 µ inch/second and based on the root mean square (RMS) velocity amplitude.
Source: FTA 2006:7-8

Common Noise Descriptors

Noise in our daily environment fluctuates over time. Various noise descriptors have been developed to describe time-varying noise levels. The following are the noise descriptors used throughout this section.

Equivalent Continuous Sound Level (L_{eq}): L_{eq} represents an average of the sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound level that occurs during the same period (Caltrans 2013b:2-48). For instance, the 1-hour equivalent sound level, also referred to as the hourly L_{eq}, is the energy average of sound levels occurring during a 1-hour period and is the basis for noise abatement criteria used by California Department of Transportation (Caltrans) and Federal Transit Administration (FTA) (Caltrans 2013b:2-47; FTA 2006:2-19).

Maximum Sound Level (L_{max}): L_{max} is the highest instantaneous sound level measured during a specified period (Caltrans 2013b:2-48; FTA 2006:2-16).

Day-Night Level (L_{dn}): L_{dn} is the energy average of A-weighted sound levels occurring over a 24-hour period, with a 10-dB "penalty" applied to sound levels occurring during nighttime hours between 10 p.m. and 7 a.m. (Caltrans 2013b:2-48; FTA 2006:2-22).

Community Noise Equivalent Level (CNEL): CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to sound levels occurring during the nighttime hours between 10 p.m. and 7 a.m. and a 5-dB penalty applied to the sound levels occurring during evening hours between 7 p.m. and 10 p.m. (Caltrans 2013b:2-48).

Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which a noise level decreases with distance depends on the following factors:

Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Roads and highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources, thus propagating at a slower rate in comparison to a point source. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

Ground Absorption

The propagation path of noise from a source to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective-wave canceling provides additional attenuation associated with geometric spreading. Traditionally, this additional attenuation has also been expressed

in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver, such as soft dirt, grass, or scattered bushes and trees), additional ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the attenuate rate associated with cylindrical spreading, the additional ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance. This would hold true for point sources, resulting in an overall drop-off rate of up to 7.5 dB per doubling of distance.

Atmospheric Effects

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels, as wind can carry sound. Sound levels can be increased over large distances (e.g., more than 500 feet) from the source because of atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also affect sound attenuation.

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receiver attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. A barrier that breaks the line of sight between a source and a receiver will typically result in at least 5 dB of noise reduction (Caltrans 2013b:2-41; FTA 2006:5-6, 6-25). Barriers higher than the line of sight provide increased noise reduction (FTA 2006:2-12). Vegetation between the source and receiver is rarely effective in reducing noise because it does not create a solid barrier unless there are multiple rows of vegetation (FTA 2006:2-11).

EXISTING NOISE ENVIRONMENT

Existing Noise- and Vibration-Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels, and because of the potential for nighttime noise to result in sleep disruption. Additional land uses such as schools, transient lodging, historic sites, cemeteries, and places of worship are also generally considered sensitive to increases in noise levels. These land use types are also considered vibration-sensitive land uses in addition to commercial and industrial buildings where vibration would interfere with operations within the building, including levels that may be well below those associated with human annoyance. The Specific Plan Area includes land that is currently occupied by sensitive receptors, including residences, transient lodging, parks, and schools.

Existing Noise Sources and Ambient Levels

The predominant noise source in the project area is vehicle traffic on the surrounding roadway network (e.g., Interstate 5 [I-5], Business 80/U.S. Highway 50 [U.S. 50], Broadway). Existing traffic noise levels on roadway segments in the project area modeled using calculation methods consistent with FHWA Traffic Noise Model, Version 2.5 (FHWA 2004) and using average daily traffic (ADT) volumes provided in the traffic analysis conducted by Fehr & Peers and summarized in Section 4.10, “Transportation and

Circulation." Table 4.10-7 summarizes the modeled existing traffic noise levels at 100 feet from the centerline of each area roadway segments, and lists distances from each roadway centerline to the 70, 65, and 60 L_{dn} traffic noise contours. For further details on traffic-noise modeling inputs and parameters, refer to Appendix F.

Table 4.10-7 Summary of Modeled Existing Traffic Noise Levels

	Roadway Segment/Segment Description	CNEL at 50 feet from Roadway Centerline	Distance (feet) from Roadway Centerline to CNEL Contour		
			70	65	60
1	3rd Street from V Street to W Street	61.9	7	24	75
2	3rd Street from W Street to X Street	62.0	8	24	76
3	3rd Street from X Street to Broadway	59.6	4	14	43
4	W Street from 3rd Street to 5th Street	52.1	1	2	8
5	W Street from 5th Street to 11th Street	67.8	29	91	287
6	W Street from 11th Street to 12th Street	66.5	21	68	215
7	X Street from I-5 to 3rd Street	58.1	3	10	31
8	X Street from 3rd Street to 5th Street	62.7	9	28	89
9	X Street from 5th Street to Riverside Boulevard	66.6	22	68	217
10	X Street from Riverside Boulevard to 13th Street	67.0	24	75	237
11	5th Street from V Street to W Street	54.9	1	5	15
12	5th Street from W Street to X Street	67.5	27	84	266
13	5h Street from X Street to Broadway	61.5	7	21	68
14	5th Street from Broadway to 1st Avenue	61.0	6	19	59
15	5th Street from 1st Avenue to Mcclatchy Way	59.2	4	13	40
16	5th Street from Mcclatchy Way to Vallejo Way	57.4	3	8	26
17	5th Street from Vallejo Way to 4th Avenue	48.8	NA	1	4
18	8th Street from X Street to Broadway	55.8	2	6	18
19	9th Street from X Street to Broadway	60.5	5	17	53
20	11th Street from V Street to W Street	56.9	2	7	23
21	11th Street from W Street to X Street	58.4	3	10	33
22	11th Street X Street to Broadway	62.5	9	27	85
23	Riverside Boulevard from Broadway to Vallejo Way	64.4	13	42	133
24	Riverside Boulevard from Vallejo Way to 3rd Avenue	64.0	12	38	119
25	Vallejo Way from River Bend Circle to 5th Street	49.8	NA	1	5
26	Vallejo Way from 5th Street to Muir Way	55.8	2	6	18
27	Vallejo Way from Muir Way to Riverside Boulevard	54.0	1	4	12
28	Vallejo Way from Riverside Boulevard to 3rd Avenue	53.5	1	3	11
29	Muir Way from Broadway to Vallejo Way	60.1	5	15	48
30	Muir Way From Vallejo Way to 3rd Avenue	57.6	3	9	28
31	Broadway from American River to Front Street	53.1	1	3	10
32	Broadway from Front Street to I-5	57.5	3	8	27
33	Broadway from I-5 to 3rd Street	61.4	7	21	65

	Roadway Segment/Segment Description	CNEL at 50 feet from Roadway Centerline	Distance (feet) from Roadway Centerline to CNEL Contour		
			70	65	60
34	Broadway from 3rd Street to 5th Street	62.9	9	30	94
35	Broadway from 5th Street to 8th Street	63.9	12	37	118
36	Broadway from 8th Street to 9th Street	64.9	15	47	149
37	Broadway from 9th Street to Riverside Boulevard	66.1	19	61	193
38	Broadway from Riverside Boulevard to 13th Street	64.6	14	44	139
39	Mcclatchy Way from I-5 to 5th Street	52.0	1	2	8
40	1st Avenue from 3rd Street to 5th Street	47.8	NA	1	3
41	1st Avenue, East of 5th Avenue	42.2	NA	NA	1

Notes: CNEL = Community Noise Equivalent Level

All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow, and does not account for shielding of any type or finite roadway adjustments. All noise levels are reported as A-weighted noise levels. For additional details, refer to Appendix F for detailed traffic data, and traffic-noise modeling input data and output results.

Source: Data modeled by Ascent Environmental in 2019

4.10.3 Environmental Impacts and Mitigation Measures

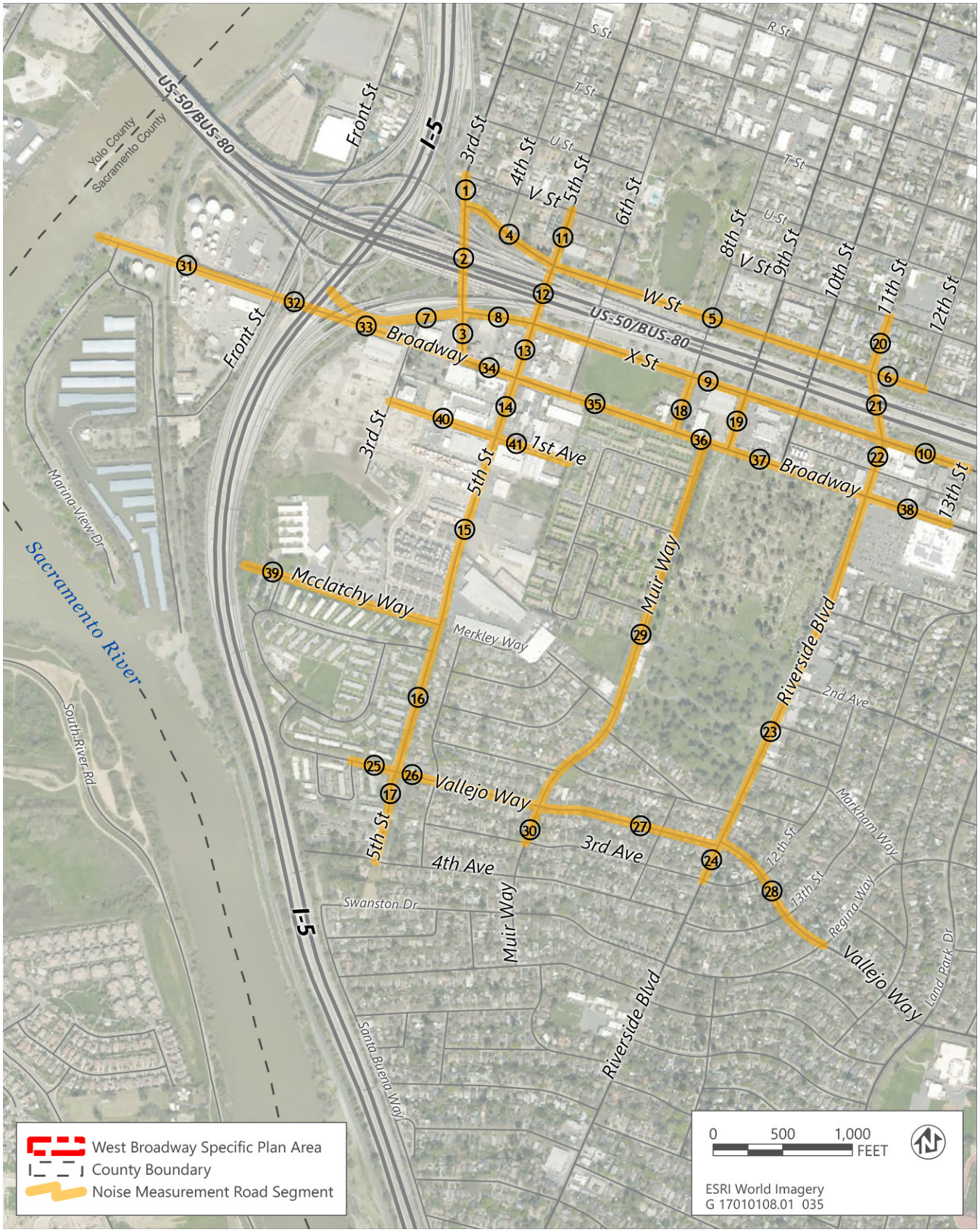
METHODOLOGY

Construction Noise

Construction noise impacts are assessed relative to the increase in noise levels that could result from the operation of specified construction equipment compared to existing noise level conditions. Analysis of the proposed WBSP temporary construction noise effects is based on construction equipment typically used in residential and urban development projects. Analysis of temporary construction noise effects of specific development scenarios are based on typical construction phases and equipment noise levels. In all cases, the analyses accounted for attenuation of those noise levels due to distances between the construction activity and the sensitive land uses in the site vicinity. Construction noise levels at nearby sensitive land uses that would be associated with the proposed WBSP are estimated using FTA's *Guide on Transit Noise and Vibration Impact Assessment* methodology (FTA 2018) and FHWA's *Roadway Construction Noise Model User's Guide* (FHWA 2006). Reference levels for noise and vibration emissions for specific equipment or activity types are well documented and the usage thereof common practice in the field of acoustics.

Ground-borne Vibration

For the purposes of this assessment, the methodology described in the Caltrans' Transportation and Construction Vibration Guidance Manual (2013a) was used to evaluate project-related vibration effects to nearby sensitive land uses. This Caltrans guidance manual focuses entirely on addressing vibration from construction activities. Impact pile driving may occur during the construction of buildings under the proposed WBSP. Impact pile driving is considered a continuous/frequent intermittent source (Caltrans 2013a). The building damage threshold for historic and some older buildings is 0.25 PPV (in/sec) and the vibration threshold where vibration level increases are considered distinctly perceptible is 0.04 PPV (in/sec) for continuous/frequent intermittent sources. On- and off-site sensitive receptors exposed to construction vibration levels that would exceed the latter of these thresholds would be considered to result in a significant impact. Buildings that would be exposed to construction vibration levels that would exceed the former of these thresholds would also be considered to result in a significant impact.



Source: Data downloaded from Sacramento County in 2019

Figure 4.10-1 Noise Measurement Road Segment

Operational Noise

The California Supreme Court recently found that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents." In *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369, the Supreme Court explained that an agency is only required to analyze the potential impact of such hazards on future residents if the project would exacerbate those existing environmental hazards or conditions. CEQA analysis is therefore concerned with a project's impact on the environment, rather than with the environment's impact on a project and its users or residents. Thus, with respect to noise and vibration impacts from existing pass-by events along the Sacramento Southern Railroad rail lines, the City is not required to consider the effects of bringing a new population into an area where such noise and vibration levels exist, because the proposed WBSP would not increase or otherwise affect the number of train trips on the existing rail lines that could result in an increase in vibration levels. Therefore, future noise and vibration effects as a result of the existing Sacramento Southern Railroad operations are not assessed in this EIR.

Roadside noise levels were calculated for the same roadways analyzed in Section 4.12, "Transportation and Circulation." The street segments selected for analysis are those expected to be most directly impacted by project-related traffic, which, for the purpose of this analysis, are the streets that are within the Specific Plan Area that experience the highest traffic volumes. These streets are forecast to experience the greatest percentage increase in traffic generated by the proposed WBSP. The noise levels are calculated using the FHWA's traffic noise prediction equations and traffic volumes identified in the transportation and circulation study conducted for this EIR. Future traffic noise levels that are found to exceed the allowed City of Sacramento's exterior incremental noise impact standards or exterior noise compatibility standards would result in a significant impact.

THRESHOLDS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines identifies potential significance criteria for the evaluation of impacts related to noise and vibration. The proposed WBSP would have a significant impact related to noise and vibration if future development would:

- Result in a substantial permanent increase in ambient exterior noise levels in the project vicinity that exceed standards in the City's General Plan or Noise Control Ordinance;
- Result in construction noise levels that exceed the standards in the City of Sacramento Noise Control Ordinance; or
- Permit existing and/or planned buildings (and persons within) to be exposed to significant vibration because of project construction.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.10-1: Operational Noise

Operation of development permitted under the WBSP would include noise from additional traffic as well as non-transportation sources such as noise associated with loading docks and garbage collection services. These activities would result in increased elevated noise levels near sensitive receptors. Further, it is possible that such activities could occur during non-exempt evening and nighttime hours and exceed the City's nighttime noise standard. This impact would be **potentially significant**.

Operations of development allowed under the WBSP could result in a substantial permanent increase in ambient exterior noise levels.

On-Road Transportation

Most of the long-term noise that would result due to the implementation of the WBSP would primarily be traffic-generated. The proposed WBSP would contribute to an increase in local traffic volumes, resulting in higher traffic noise levels along local roadways. Using algorithms from the FHWA's Traffic Noise Model Technical Manual and the traffic volumes for the proposed WBSP provided by Fehr & Peers, traffic noise levels were estimated for roadway segments within the Specific Plan Area under Existing and Existing plus WBSP conditions. The segments analyzed and the associated results of the modeling are shown in Table 4.10-8.

Table 4.10-8 Existing and Projected Traffic Noise Levels Along Streets in the Specific Plan Area

Roadway Segment/Segment Description	CNEL at 50 feet from Roadway Centerline		Change (dB)
	Existing	Existing + Project	
3rd Street from V Street to W Street	61.9	62.4	+0.4
3rd Street from W Street to X Street	62.0	62.4	+0.4
3rd Street from X Street to Broadway	59.6	62.3	+2.7
W Street from 3rd Street to 5th Street	52.1	52.9	+0.8
W Street from 5th Street to 11th Street	67.8	67.8	+0.0
W Street from 11th Street to 12th Street	66.5	67.3	+0.8
X Street from I-5 to 3rd Street	58.1	59.1	+1.0
X Street from 3rd Street to 5th Street	62.7	64.4	+1.7
X Street from 5th Street to Riverside Boulevard	66.6	67.1	+0.5
X Street from Riverside Boulevard to 13th Street	67.0	67.3	+0.3
5th Street from V Street to W Street	54.9	55.6	+0.7
5th Street from W Street to X Street	67.5	67.9	+0.5
5h Street from X Street to Broadway	61.5	63.6	+2.1
5th Street from Broadway to 1st Avenue	61.0	62.3	+1.4
5th Street from 1st Avenue to Mcclatchy Way	59.2	60.1	+0.9
5th Street from Mcclatchy Way to Vallejo Way	57.4	58.2	+0.8
5th Street from Vallejo Way to 4th Avenue	48.8	49.9	+1.1
8th Street from X Street to Broadway	55.8	60.9	+5.1
9th Street from X Street to Broadway	60.5	61.6	+1.1
11th Street from V Street to W Street	56.9	57.2	+0.3
11th Street from W Street to X Street	58.4	58.5	+0.1
11th Street X Street to Broadway	62.5	63.0	+0.5
Riverside Boulevard from Broadway to Vallejo Way	64.4	64.4	0.0
Riverside Boulevard from Vallejo Way to 3rd Avenue	64.0	64.2	+0.2
Vallejo Way from River Bend Circle to 5th Street	49.8	51.6	+1.8
Vallejo Way from 5th Street to Muir Way	55.8	55.2	-0.6
Vallejo Way from Muir Way to Riverside Boulevard	54.0	54.7	+0.6
Vallejo Way from Riverside Boulevard to 3rd Avenue	53.5	55.3	+1.8

Roadway Segment/Segment Description	CNEL at 50 feet from Roadway Centerline		Change (dB)
	Existing	Existing + Project	
Muir Way from Broadway to Vallejo Way	60.1	61.4	+1.4
Muir Way From Vallejo Way to 3rd Avenue	57.6	57.7	0.0
Broadway from American River to Front Street	53.1	53.4	+0.3
Broadway from Front Street to I-5	57.5	63.2	+5.7
Broadway from I-5 to 3rd Street	61.4	66.0	+4.6
Broadway from 3rd Street to 5th Street	62.9	65.6	+2.6
Broadway from 5th Street to 8th Street	63.9	65.4	+1.5
Broadway from 8th Street to 9th Street	64.9	66.5	+1.6
Broadway from 9th Street to Riverside Boulevard	66.1	66.6	+0.5
Broadway from Riverside Boulevard to 13th Street	64.6	65.6	+1.0
McClatchy Way from I-5 to 5th Street	52.0	52.6	+0.6
1st Avenue from 3rd Street to 5th Street	47.8	55.8	+8.0

Notes: CNEL = Community Noise Equivalent Level

All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow, and does not account for shielding of any type or finite roadway adjustments. All noise levels are reported as A-weighted noise levels. For additional details, refer to Appendix F for detailed traffic data, and traffic-noise modeling input data and output results.

Source: Data modeled by Ascent Environmental in 2019

As shown in Table 4.10-6, no roadway segments were identified under existing or existing + project conditions where traffic noise levels would exceed the normally acceptable CNEL threshold (i.e., 70 dBA) for Urban Residential Infill and Mixed-Use Projects. Although the on-road traffic noise associated with the WBSP would not result in noise levels that would exceed the normally acceptable L_{dn} for Urban Residential Infill and Mixed-Use Projects listed in Table 4.10-3 (see Table 4.10-8 for noise levels), implementation of the WBSP would result in daily L_{dn} noise exposure that would exceed the allowable incremental noise increases detailed in Table 4.10-4 at existing residential uses along 1st Avenue. Therefore, although the on-road traffic noise associated with the WBSP would not result in noise levels that would exceed the normally acceptable L_{dn} for Urban Residential Infill and Mixed-Use Projects, the WBSP would increase daily L_{dn} noise exposures in increments that would exceed the allowable noise incremental increases detailed in Table 4.10-4 at residential uses. This would result in a significant impact.

Non-Transportation Noise Sources

Loading Docks

Uses proposed within the Specific Plan Area could require loading docks. Truck deliveries at loading docks generate noise as a result of truck arrivals and departures from the unloading area, trucks backing into the docks (including backup beepers), air brakes, and other truck unloading-related noise. These activities would be a source of elevated noise levels at nearby sensitive receptors. Noise levels of 80 dBA Lmax and 60 dBA L_{eq} at a distance of 50 feet can be generated during loading dock activities (ESA 2008, cited in City of Sacramento 2018).

Assuming a 7.5 dB per doubling of distance drop-off rate and a reference noise level of 60 dBA L_{eq} at a distance of 50 feet, sensitive land uses located within approximately 120 feet of a loading dock could be exposed to noise levels above the applied City of Sacramento's nighttime noise standard of 50 dBA L_{eq}. The loading docks at commercial buildings within the Specific Plan Area could be placed within 120 feet of an existing sensitive land use. At this distance, sensitive land uses within the Specific Plan Area

could be exposed to levels above the City of Sacramento's nighttime noise standard. Therefore, operation of loading docks at the proposed commercial buildings could expose nearby sensitive land uses to noise levels that could result in a potentially significant impact.

Garbage Collection Services

The future residential and non-residential uses proposed within the SP would be exposed to noise associated with garbage collection along city streets. Noise associated with garbage collection activities includes air-brake release, engine rumble, operation of hydraulic bin lifts, compression of garbage in the truck bed and reversing beepers. Noise from garbage collection is limited by City's Noise Ordinance, which mandates that noise produced by vehicles used for garbage collection is less than 75 dBA L_{max} at 50 feet from the vehicle, and enforced by police department. Garbage trucks servicing the Sacramento downtown area, as well as the WBSP, must comply with the Noise Ordinance. Therefore, this impact would result in a less than significant impact.

Special Events

Under the proposed WBSP, Miller Regional Park would be reconfigured to accommodate up to 15,000 people on the lawn for special events. Special events could include amplified noise as well as the general noise generated by a large congregation of people. Any events that would take place would be subject to the requirements of the City's Noise Ordinance. In addition, the location of special events would be separated from nearby sensitive receptors by the Broadway Bridge, existing railroad tracks, I-5, and Business 80/U.S. 50. Due to required compliance with the City's Noise Ordinance and the separation between special events and nearby sensitive receptors, the impact of special events on ambient noise would be less than significant.

Summary

Future traffic increases associated with the development of the WBSP would result in noise increases along roadway segments within the Specific Plan Area that would expose existing sensitive receptors to substantial noise increases over existing conditions. Future commercial, retail, and office buildings developed under the WBSP could be located near existing and proposed sensitive land uses. These sensitive receptors could be exposed to loading dock that could exceed the City's nighttime noise standard. Therefore, operation of the WBSP could result in a substantial permanent increase in ambient exterior noise levels in the Specific Plan Area that would result in a **significant** impact.

Mitigation Measures

Mitigation Measure 4.10-1: Loading Dock Noise

For development of new commercial or mixed-use buildings within the Specific Plan Area, the applicant shall demonstrate that noise levels from loading docks would not exceed the stationary noise standards established in the City's Code. To demonstrate that a proposed development would meet the City's stationary noise standards, the applicant must implement the following measures:

a) Before the issuance of building permits, the applicant shall submit engineering and acoustical specification for the proposed locations of onsite loading docks to the Planning Director, demonstrating that the loading dock design (types, location, enclosure, specification) will control noise from the equipment to at least 10 dB below existing ambient levels at nearby residential and other noise sensitive land uses.

b) Noise-generating stationary equipment associated with proposed commercial and/or office uses, including portable generators, compressors, and compactors shall be enclosed or acoustically shielded to reduce noise-related impacts to noise-sensitive residential uses.

Significance after Mitigation

Although impacts associated with loading docks and non-transportation noise sources would be reduced to less-than-significant levels with implementation of Mitigation Measure 4.10-1, no feasible mitigation strategies have been identified to reduce the on-road transportation noise impacts to less than significant. Alternative modes of transportation (i.e., walking, biking, and transit) are already accounted for in the above traffic noise estimates. The reduction in roadway traffic volumes needed to mitigate these roadway noise impacts is not feasible for the proposed WBSP. In addition, typical measures to reduce roadway noise impacts, such as noise walls, setbacks, and rubberized asphalt, are not considered feasible mitigation for development within the developed areas of the City, including the Specific Plan Area, as they would either be inconsistent with City policy related to maintaining views and visual character, result in significant secondary impacts to potentially historic structures, or not achieve the necessary reduction due, in part, to the level of increase in noise levels. This impact would be considered **significant and unavoidable**.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and would not include special events at Miller Regional Park. However, similar to the proposed WBSP, development under Scenario B would include residential and commercial/industrial development that would increase traffic noise on roadways. As a result, potential impacts related to risks to people or structures would also be **significant and unavoidable**, similar to the proposed project.

Impact 4.10-2: Construction Noise and Vibration

Construction activities within the WBSP could result in a substantial or temporary periodic increase in ambient noise levels to sensitive receptors in the area. This impact would be **potentially significant**.

Construction activities associated with development allowed under the proposed WBSP could generate noise that would conflict with City standards or result in substantial temporary or periodic increase in ambient noise levels.

Noise levels from construction activity at nearby sensitive receptors would fluctuate depending on the nature of the construction project and the particular type, number, and duration of use of various pieces of construction equipment. Construction-related material haul trips would raise ambient noise levels along haul routes, depending on the number of haul trips made and types of vehicles used. In addition, certain types of construction equipment generate impulsive noises (such as impact pile driving), which can be disruptive. Table 4.10-9 shows typical noise levels produced by the types of construction equipment that would likely be used during construction of the uses anticipated under the WBSP.

Table 4.10-9 Reference Construction Equipment Noise Levels (50 Feet from Source)

Type of Equipment	L_{max} dBA Hourly	L_{eq} dBA/% Use[1]
Backhoe	80	76/40%
Grader	85	81/40%
Concrete Mixer Truck	85	81/40%
Loader	80	76/40%
Pneumatic Tools	85	82/50%
Air Compressor	80	76/40%
Impact Pile Driver	95	88/20%
Auger Drill Rig	85	78/20%
Excavator	85	81/40%

1. Percent used during the given time period (usually an hour – hourly L_{eq}) were obtained from the FHWA Roadway Construction Noise Model User's Guide.

Source: FHWA 2006.

As previously discussed above, City Municipal Code Section 8.68.080 exempts construction activities from noise standards as long as these activities are limited to between the hours of 7:00 am and 6:00 pm Monday through Saturday, and between the hours of 9:00 am and 6:00 pm on Sunday. Construction activities that occur outside of the City of Sacramento construction exempt hours must comply with Municipal Code Section 8.68.060, which allows for a maximum noise level of 75 dBA from 7:00 am to 10:00 pm, and 70 dBA from 10:00 pm to 7:00 am.

Construction of the proposed residential and non-residential uses would require site grading, excavation for infrastructure and building foundations, building construction, and paving and landscaping installation. All of these construction activities would require onsite staging areas to store off-road equipment and to temporarily hold building materials and infill soil. Construction of proposed residential and commercial uses under the WBSP is assumed to begin in 2020 and last at least approximately one decade. For the purposes of analysis and to present a conservative analysis, this EIR has assumed construction over a period of approximately 10 years, with buildout completed in 2030, but the actual period of construction would depend on market conditions.

The operation of each piece of off-road equipment within the Specific Plan Area would not be constant throughout the day, as equipment would be turned off when not in use. Most of the time over a typical work day, the equipment would be operating at different locations within the Specific Plan Area and would not likely be operating concurrently. However, for a more conservative approximation of construction noise levels to which the nearest sensitive receptor would be exposed, it is assumed for this analysis that two of the loudest pieces of construction equipment would be operating at the same time and located within the Specific Plan Area nearest to an offsite sensitive receptor. The exact locations of the proposed residential and commercial uses are unknown. However, construction equipment would operate on property parcels that would be immediately adjacent to existing sensitive receptors. Therefore, it is conservatively assumed that construction equipment would operate within 20 feet of the nearest existing sensitive receptors within the Specific Plan Area. Using the reference noise levels provided in Table 4.10-9 and a 7.5 dB per doubling of distance drop-off, a backhoe and grader running at the same time and location could generate a maximum noise level of 98 dBA from a distance of 20 feet. It is important to note that this maximum noise level may be conservative as some construction activities could occur near commercial areas where no sensitive uses exist. Therefore, for this analysis, it is assumed that the nearest sensitive receptors located near construction areas could be exposed to a maximum noise level of 98 dBA during WBSP construction.

The WBSP could result in the construction of high-rise buildings. If high-rise buildings are constructed, the use of impact pile drivers could be required to construct the deep foundations for these structures. Using the reference noise levels provided in Table 4.10-9, an impact pile driver could generate a maximum noise level of 95 dBA from a distance of 50 feet. Therefore, the nearest sensitive receptors located near where high-rise building construction sites could be exposed to a maximum noise level of 95 dBA during project construction.

All construction activities proposed under the WBSP would comply with Section 4.10.3 of the Municipal Code by restricting construction hours to within the City's noise exempt hours (between the hours of 7:00 am and 6:00 pm Monday through Saturday and between the hours of 9:00 am and 6:00 pm on Sunday). Although construction activities would comply with the City's construction exempt hours and would not conflict with the City's noise standards, construction of new development pursuant to the WBSP, especially if impact pile driving activities were required, could expose nearby sensitive land uses to noise levels that would be considered a substantial temporary noise increase over the existing ambient levels. Therefore, noise generated during the construction of the WBSP could result in a potentially significant impact.

The WBSP would require the use of construction equipment and could require the use of impact pile drivers during the construction of high-rise buildings. For the purposes of this analysis, it is assumed that construction activities would generally occur within the allowable time frames for construction established by the City. However, depending on the location relative to sensitive receptors, construction noise levels generated during building construction, in combination with potential impact pile driving, could expose nearby sensitive land uses to noise levels that could be considered a substantial temporary increase over the existing ambient noise levels. Impacts would be **potentially significant**.

Mitigation Measures

Mitigation Measure 4.10-2: Construction Noise

For all projects in the Specific Plan Area that require a building permit, the City shall require that the contractor implement the following measures during all phases of construction:

a) All heavy construction equipment and all stationary noise sources (such as diesel generators) shall have manufacturer-installed mufflers.

b) Auger displacement shall be used for installation of foundation piles, if feasible.

c) Restrict heavy-duty equipment operations in close proximity to buildings.

If impact pile driving is required, sonic pile drivers shall be used, unless engineering studies are submitted to the City that show this is not feasible, based on geotechnical considerations.

Significance after Mitigation

Implementation of Mitigation Measure 4.10-2 would reduce construction noise within the Specific Plan Area to the extent feasible. Restricting heavy-duty equipment operations in close proximity to buildings would substantially reduce exterior and interior noise at adjacent buildings. Use of auger displacement would reduce noise levels of pile installation to be comparable to the existing noise levels of passing trains. If auger displacement is not feasible, use of sonic pile drivers would reduce noise levels by about 5 dB compared to impact pile drivers. These measures would minimize interior noise and associated sleep disturbance and any potential hearing loss effects at nearby receptors during excavation, and construction. Because site conditions may make it infeasible to implement all measures identified above, impacts related to construction noise would remain **significant and unavoidable** despite implementation of Mitigation Measure 4.10-2.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. Similar to the proposed project, all future development within the Specific Plan Area would be required to comply with Mitigation Measure 4.10-2 and the City's Noise Ordinance. While implementation of Scenario B would result in less construction than the proposed project and implementation of Mitigation Measure 4.10-2 would reduce construction effects, it may be infeasible to reduce construction noise impacts to a less-than-significant level. As a result, potential construction noise impacts would also be **significant and unavoidable**, similar to the WBSP.

Impact 4.10-3: Residential Interior Noise Standards

Development under the WBSP could result in noise impacts to sensitive receptors, particularly residential uses. However, residential development within the WBSP would be required to comply with the most current version of Title 24 of the California Code of Regulations, which requires an interior noise standard of 45 dBA L_{dn} in any habitable room. This impact would be **less than significant**.

The operation of development allowed under the WBSP could result in residential interior noise levels of 45 dBA L_{dn} or greater. Table 4.10-6 shows the future traffic noise levels along roadways segments within the Specific Plan Area.

An exterior day-night noise exposure of 70 dBA L_{dn} or greater would result in potentially incompatible interior noise for new sensitive receptors. The multi-family residences to be developed pursuant to the WBSP would be required to comply with the most current version of Title 24 of the California Code of Regulations, which requires an interior noise standard of 45 dBA L_{dn} in any habitable room. To meet the City and State interior noise requirement of 45 dBA L_{dn}, in habitable rooms of residential dwellings, the residential buildings developed under the WBSP would be designed to reduce sound transmission (i.e., exterior-to-interior noise).

Operation of the WBSP would result in noise exposure of residential receptors in the project vicinity, as described above in Impact 4.10-1. For on-road transportation sources, the total roadway noise from existing and WBSP-related traffic would not exceed the 70 dBA L_{dn} standard at existing or proposed residential uses. None of the roadway segments analyzed would expose adjacent sensitive land uses to noise levels that would exceed the City of Sacramento exterior noise standards. It is unlikely that interior noise levels at existing residential uses adjacent to these roadway segments would increase above 45 dBA L_{dn}, even for buildings that are older and not constructed pursuant to Title 24 standards. Therefore, the WBSP would not result in residential interior noise levels of 45 dBA L_{dn} or greater caused by noise level increases due to WBSP operation and result in **less-than-significant** impact.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. Under Scenario B, special events would not take place within Miller Regional Park. However, similar to the proposed project, all future development within the Specific Plan Area would be required to comply with the most current Title 24 interior noise standard for habitable rooms. As a result, potential impacts related to interior noise would also be **less than significant**, similar to the proposed project.

Impact 4.10-4: Construction Vibration

Construction of projects within the Specific Plan Area may require the use of bulldozers, impact pile drivers and other large construction equipment that could result in vibration effects. Construction activities, including impact pile driving, would be temporary and intermittent at any particular location and use in the Specific Plan Area. Due to the close proximity of existing sensitive land uses to potential WBSP construction areas, vibration levels generated during impact pile driving, if required, could exceed the applied vibration thresholds for human annoyance and/or building damage at nearby existing sensitive receptors and existing historic structures. This would result in a short-term **potentially significant** impact.

Construction of buildings as part of the WBSP could expose existing and/or planned buildings, and persons within, to vibration that could disturb people or damage buildings. Construction of the structures that would be developed under the WBSP could require the use of equipment or vehicles that could expose nearby sensitive receptors to vibrations levels that may result in an annoyance or building damage. Because construction activities within the Specific Plan Area are anticipated to take place on a frequent basis over the next 10 or more years, these activities would be considered a continuous/frequent intermittent vibration source, even though active construction activities are likely to be infrequent at any particular location or use in the Specific Plan Area.

According to the Caltrans' Transportation and Construction Vibration Guidance Manual (2013a), the building damage threshold for historic and some older buildings is 0.25 PPV (in/sec) and the vibration threshold where vibration level increases are considered distinctly perceptible is 0.04 PPV (in/sec) for continuous/frequent intermittent sources. There are numerous buildings and resources in the within the Specific Plan Area that could be particularly sensitive to damage during project construction, including historic residential homes and numerous nonresidential.

Ground-borne vibration from grading, excavation, building construction, and/or impact pile driving activities within the Specific Plan Area could produce substantial vibration at nearby sensitive receptors, including structures themselves. The extent to which these land uses would be affected depends largely on soil conditions, building design and materials, construction techniques employed, distance from the construction site to the affected structure, the age and condition of the structure, and a receptor's location in the building.

Building Damage

Typical reference vibration levels for various pieces of equipment are listed below in Table 4.10-10. During grading and building construction, the highest vibration levels would be generated by large bulldozers which could cause vibration-related building damage if operated within 13 feet of historic and some older buildings; vibration from bulldozer operations further than 13 feet away would be unlikely to cause damage. During foundation pile installation, the highest vibration levels could be generated by impact pile drivers where building damage to historic and some older buildings could occur within 47 feet; pile driving at distances greater than 47 feet would be unlikely to cause vibration damage.

Table 4.10-10 Vibration Velocities for Construction Equipment

Equipment/Activity	PPV at 25 ft (inches/second)
Large Bulldozer	0.089
Hoe Ram	0.089
Loaded Trucks	0.76
Pile Drive (Impact)	0.644
Pile Driver (Sonic)	0.170
Caisson Drilling (represents Auger Drilling Pile Installation)	0.089

Source: FTA 2018

Since development pursuant to the WBSP would be constructed over time based on market demand, construction schedules and durations cannot not be currently predicted. However, it is reasonable to assume that is possible that grading and building construction activities could occur within 13 feet of an historic structure, and impact pile driving could take place within 47 feet of such structures.

Human Disturbance

Sensitive human receptors located within 40 feet of grading or 148 feet of impact pile driving activities would be exposed to construction vibration levels that could result in an annoyance. Since development of the WBSP would be constructed over an extended period of time based on market demand, construction plans and schedules are not currently available. Based on the type of development allowed that would be permitted under the WBSP and the locations of potential development sites, it is likely that grading and building construction activities at some locations would occur within 40 feet of existing or proposed sensitive land uses, or that impact pile driving would occur within 148 feet of such sensitive land uses; thus construction activities associated with the WBSP could result in an annoyance to nearby people.

While construction-related vibration would be limited to the duration of the construction schedule, because of the close proximity of existing sensitive land uses and historic structures to construction activities, vibration levels could exceed the building damage and human annoyance thresholds. This would be a short-term **potentially significant** impact.

Mitigation Measures

Mitigation Measure 4.10-4(a)

Implement Mitigation Measure 4.10-2.

Mitigation Measure 4.10-4(b)

For all projects in the Specific Plan Area that require the use of graders or impact pile drivers, before the issuance of any demolition, grading, or building permit, the applicant shall develop and submit a Vibration Reduction Plan to the City Chief Building Official for approval. The Plan shall include measures that will reduce vibration at surrounding buildings to less than 80 VdB and 83 VdB where people sleep and work, respectively, and less than 0.25 PPV for historic buildings. Measures and controls are not limited to, some or all of the following:

1) Inclusion of buffers and selection of equipment to minimize vibration impacts during construction at nearby receptors to meet the specified standards.

2) Implementation of a vibration, crack, and line and grade monitoring program at existing Nationally registered, State listed, and locally recognized historic buildings located within 47 feet of construction activities. The following elements shall be included in this program:

   i. Before start of construction:

      1. The applicant or construction contractor shall install crack gauges on proximate historic structures.

   ii. During building construction:

      1. The construction contractor shall regularly inspect and photograph crack gauges, maintaining records of these inspections to be included in post-construction reporting. Gauges shall be inspected every two weeks, or more frequently during periods of active project actions in close proximity to crack gauges.

      2. The construction contractor shall collect vibration data from receptors and report vibration levels to the City Chief Building Official on a monthly basis. The reports shall include annotations regarding project activities as necessary to explain changes in

vibration levels, along with proposed corrective actions to avoid vibration levels approaching or exceeding the established threshold.

3. If vibration levels exceed the threshold and monitoring or inspection indicates that the project is damaging the historic structure, additional protection or stabilization shall be implemented. If necessary and with approval by the City Chief Building Official, the construction contractor shall install temporary shoring or stabilization to help avoid permanent impacts. Stabilization may involve structural reinforcement or corrections for deterioration that would minimize or avoid potential structural failures or avoid accelerating damage to the historic structure. Stabilization shall be conducted following the Secretary of Interior Standards Treatment of Preservation. This treatment shall ensure retention of the historical resource's character-defining features. Stabilization may temporarily impair the historic integrity of the building's design, material, or setting, and as such, the stabilization must be conducted in a manner that will not permanently impair a building's ability to convey its significance. Measures to shore or stabilize the building shall be installed in a manner that avoids damage to the historic integrity of the building, including integrity of material.

iii. Post-construction:

1. At the conclusion of vibration generating construction activities, the applicant shall submit a crack and vibration monitoring report to the summary of the monitoring activities and their findings; photographs illustrating the post-construction state of cracks and material conditions that were presented in the pre-construction assessment report; annotated analysis of vibration data related to project activities; a summary of measures undertaken to avoid vibration impacts; a post-construction line and grade survey; and photographs of other relevant conditions showing the impact, or lack of impact, of project activities. The photographs shall be of sufficient detail to illustrate damage, if any, caused by the project and/or show how the project did not cause physical damage to the historic and non-historic buildings.

2. The applicant shall be responsible for repairs from damage to historic and non-historic buildings if damage is caused by vibration or movement during the demolition and/or construction activities. Repairs may be necessary to address, for example, cracks that expanded as a result of the project, physical damage visible in post-construction assessment, or holes or connection points that were needed for shoring or stabilization. Repairs shall be limited to project impacts and do not apply to general rehabilitation or restoration activities of the buildings. If necessary for historic structures, repairs shall be conducted in compliance with the Secretary of Interior Standards Treatment of Preservation. The applicant shall provide a work plan for the repairs and a completion report to ensure compliance with the SOI Standards to the City Chief Building Official and City Preservation Director for review and comment.

Significance after Mitigation

Implementation of Mitigation Measures 4.10-4(b) would ensure that construction activities within the Specific Plan Area would not result in building damage at the nearest historic building structures, and would reduce human disturbance to the extent feasible. Therefore, implementation of Mitigation Measure 4.10-4(a) and Mitigation Measure 4.10(b) would reduce this impact to a **less-than-significant** level.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in less construction activities in the Specific Plan Area. However, similar to the proposed project, all future development within the Specific Plan Area would be required to comply with Mitigation Measures 4.10-4(a) and 4.10-4(b). As a result, potential impacts related to construction vibration would also be **less than significant**, similar to the proposed project.

CUMULATIVE IMPACTS

Impact 4.6-5: Potential for Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Noise

Implementation of the WBSP, in combination with other cumulative development in the area, would involve a permanent increase in ambient noise levels within and in the vicinity of the Specific Plan Area, which could contribute to significant noise impacts in the area. While implementation of feasible mitigation measures would reduce plan-specific noise impacts associated with implementation of the WBSP, impacts may not be reduced to a less-than-significant level. Therefore, the contributions of individual projects, including development of the WBSP, within the cumulative context would be cumulatively considerable. Impacts would be **significant**.

The geographic context for changes in the noise environment due to development of the WBSP would be localized in the area where other development could contribute to noise generated by development within the Specific Plan Area, as well as along roadways that would serve the Specific Plan Area.

Increases in vehicle trips due to proposed project developments would combine with other adjacent development projects in the City of Sacramento and would result in a cumulative increase in traffic along area roadways as evaluated as part of the transportation and circulation for this project (see Section 4.12, “Transportation and Circulation,” of this EIR), thus affecting noise levels within the City. To contribute to a cumulative construction noise or vibration impacts, another project in close proximity would have to be constructed at the same time as the WBSP. There are numerous development projects in several locations near and within the WBSP, currently in the planning stages that could be constructed and operational in the foreseeable future. The largest project near the Specific Plan Area is the CCSP, directly north of the Specific Plan Area. Operations of development allowed under the WBSP would contribute to cumulative increases in ambient exterior noise levels. On-road traffic associated with the WBSP would be the primary source that would contribute to the cumulative noise environment. Noise projections for those road segments that would experience the greatest increase in traffic volume and that would pass by sensitive receptors were made using traffic noise prediction equations found in the FHWA’s Traffic Noise Model Technical Manual for cumulative roadway volumes provided by Fehr & Peers (see Section 4.12, “Transportation and Circulation”). The segments analyzed and results of the modeling in daily L_{dn} are shown in Table 4.10-6. Implementation of the WBSP would result in a significant increase in traffic noise from the WBSP combined with cumulative traffic, and the WBSP would have a cumulatively considerable contribution to the overall significant impact.

Future non-residential uses within the City could include loading docks. Activities at loading docks would be a source of elevated noise levels at nearby sensitive receptors. The loading docks at commercial buildings within the City could be placed within 120 feet of an existing sensitive land use. At this distance, sensitive land uses within the City could be exposed to levels above the City of Sacramento’s nighttime noise standard. Therefore, operation of loading docks at the proposed

commercial buildings could expose nearby sensitive land uses to noise levels that could result in a potentially significant impact.

As previously discussed in Impact 4.10-2, construction activities could adversely affect both existing and future proposed sensitive land uses if located within close proximity to where WBSP-related construction would occur. If WBSP-related construction were to coincide with other construction projects, such as construction of the Streetcar project, building within the CCSP Area, or other approved projects in the Specific Plan Area, the combined effect could result in the exposure of existing and future planned noise sensitive land uses to construction noise over a longer period of time, or higher noise levels than what was predicted under the WBSP. Although there is no certainty regarding the construction schedules for development projects implemented under the WBSP as well as those of cumulative projects, construction noise associated with those projects in combination with the construction of the WBSP would be considered a temporary significant cumulative impact and the contribution of the WBSP would be **cumulatively considerable**.

Mitigation Measures

No additional feasible mitigation is available to reduce the project's contribution to less than cumulatively considerable.

Significance after Mitigation

While implementation of Mitigation Measures 4.10-1, 4.10-2, 4.10-4(a), and 4.10-4(b) would reduce potential noise impacts from the WBSP and the WBSP's contribution to cumulative noise levels, these measures would not be able to reduce operational noise effects to a less-than-significant level. Therefore, the WBSP's contribution to cumulative noise impacts would be cumulatively considerable, and impacts would be **significant and unavoidable**.

4.11 PUBLIC SERVICES AND RECREATION

This section provides an overview of existing public services in the City of Sacramento and evaluates the potential for implementation of the West Broadway Specific Plan (WBSP) to affect availability, service level, and/or capacity of public services, including fire-protection services, police-protection services, solid waste disposal, parks and recreation, and public schools; and, if such an effect is determined to occur, whether new or expanded facilities would be required that could result in a potentially significant impact to the environment. Other publicly provided utility services, such as water and wastewater treatment, stormwater management, electricity, solid waste, and natural-gas services, are addressed in Section 3.15, "Utilities and Service Systems."

No comments were received during the Notice of Preparation (NOP) comment period that addressed issues related to public services.

4.11.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws are applicable to the provision of public services and recreation for the WBSP.

STATE

California Fire Code

The 2016 California Fire Code, which incorporates by adoption the 2015 International Fire Code, contains regulations related to construction, maintenance, and use of buildings. Topics addressed in the California Fire Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The California Fire Code contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, which includes regulations for building standards (as set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers, smoke alarms, high-rise building and childcare facility standards, and fire-suppression training.

California Building Standards Code (Title 24)

Energy consumption of new buildings in California is regulated by State Building Energy Efficiency Standards contained in the California Code of Regulations, Title 24, Part 2, Chapter 2-53. Title 24 applies to all new construction of both residential and nonresidential buildings, and regulates energy consumed for heating, cooling, ventilation, water heating, and lighting. The 2016 Building Energy Efficiency Standards have improved efficiency requirements from previous codes and the updated standards are expected to result in a statewide energy consumption reduction.

Effective January 1, 2011, CALGreen became California's first green building standards code. It is formally known as the California Green Building Standards Code, Title 24, Part 11, of the California Code of Regulations. CALGreen establishes mandatory minimum green building standards and

requirements for construction and demolition (C&D) material diversion. Under Section 5.408 of the CALGreen Code, projects involving C&D activities are required to recycle and/or salvage for reuse a minimum of 65 percent of their nonhazardous C&D material. Applicable projects, such as the WBSP, are required to prepare and implement a construction waste management plan.

California Division of Occupational Safety and Health (Cal/OSHA)

In accordance with CCR, Title 8 Section 1270, "Fire Prevention," and Section 6773, "Fire Protection and Fire Equipment," the California Division of Occupational Safety and Health (referred to as Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance and use of all firefighting and emergency medical equipment.

Essential Services Buildings Seismic Safety Act

The California Legislature determined that buildings providing essential services should be capable of providing those services to the public after a disaster. The Essential Services Building Seismic Safety Act was passed in 1986 and includes requirements that these essential buildings be designed and constructed to minimize fire hazards and to resist the forces generated by earthquakes, gravity, and winds. The legislation can be found in the California Health and Safety Code, Chapter 2, sections 16000 through 16022. The California Building Code, Title 24, Part 1 defines how the intent of the Essential Services Building Seismic Safety Act is to be implemented.

Leroy F. Greene School Facilities Act of 1998

This bill was passed in 1998 and puts limitations on cities and counties with respect to mitigation requirements for school facilities. The Act allows school districts to levy fees, based on justification studies, for the purposes of funding construction of school facilities, subject to established limits. The limits were set in 2000, can be adjusted annually for inflation, and can be leveed on the square footage of residential and commercial-industrial square footage.

California Code of Regulations Title 5, Division 1, Chapter 13

CCR Title 5, Division 1, Chapter 13 details the regulations for School Facility Construction specifically the general standards for construction, standards, planning and approval for school facilities, and the sites of schools.

State Public Park Preservation Act

The primary instrument for protecting and preserving parkland is the Public Park Preservation Act of 1971. Under the PRC section 5400-5409, cities and counties may not acquire any real property that is in use as a public park for any non-park use unless compensation or land, or both, are provided to replace the parkland acquired. This provides no net loss of parkland and facilities.

Quimby Act

California Government Code Section 66477, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fee are based upon the residential density and housing type, land cost, and other factors. Land dedicated and fees collected pursuant to the Quimby Act may be used for developing new, or rehabilitating existing park or recreational facilities.

LOCAL

Sacramento City Code

Chapter 18.56 Park Impact Fee (PIF)

Chapter 18.56 of the City's Code imposes a park impact fee on residential and non-residential development within the city. Fees collected pursuant to Chapter 18.56 are primarily used to finance the construction of park facilities. The park fees are assessed upon landowners developing property to provide all or a portion of the funds which would be necessary to provide neighborhood, community, or regional and citywide parks required to meet the needs of and address the impacts caused by the additional persons residing or employed on the property as a result of the development.

City of Sacramento 2035 General Plan

The following 2035 General Plan policies are relevant to the WBSP as it relates to public services:

Fire Protection and Emergency Medical Services

GOAL PHS 2.1: Fire Protection and Emergency Medical Services. Provide coordinated fire protection and emergency medical services that address the needs of Sacramento residents and businesses and maintain a safe and healthy community.

- **Policy PHS 2.1.1: Fire Department Strategic Plan.** The City shall maintain and implement a Fire Department Strategic Plan.
- **Policy PHS 2.1.2: Response Time Standards.** The City shall strive to maintain emergency response times that provide optimal fire protection and emergency medical services to the community.
- **Policy PHS 2.1.3: Staffing Standards.** The City shall maintain optimum staffing levels for sworn, civilian, and support staff, in order to provide quality fire protection and emergency medical services to the community.
- **Policy PHS 2.1.4: Response Units and Facilities.** The City shall provide additional response units, staffing, and related capital improvements, including constructing new fire stations, as necessary, in areas where a fire company experiences call volumes exceeding 3,500 in a year to prevent compromising emergency response and ensure optimum service to the community.
- **Policy PHS 2.1.5: Timing of Services.** The City shall ensure that the development of fire facilities and delivery of services keeps pace with development and growth of the city.
- **Policy PHS 2.1.6: Locations of New Stations.** The City shall ensure that new fire station facilities are located strategically throughout the city to provide optimum response times to all areas.
- **Policy PHS 2.1.8: Co-Location of Facilities.** The City shall seek to co-located fire facilities with other City facilities, such as police stations, to promote efficient use of space and provision of fire protection and emergency medical services within dense, urban portions of the city.
- **Policy PHS 2.1.10: Regional Cooperative Delivery.** The City shall work with the various fire protection districts and other agencies to promote regional cooperative delivery of fire protection and emergency medical services.
- **Policy PHS 2.1.11: Development Fees for Facilities and Services.** The City shall require development projects to contribute fees for fire protection services and facilities.

GOAL PHS 2.2: Fire Prevention Programs and Suppression. The City shall deliver fire prevention programs that protect the public through education, adequate inspection of existing development, and incorporation of fire safety features in new development.

- **Policy PHS 2.2.2: Development Review.** The City shall continue to include the Fire Department in the review of development proposals to ensure projects adequately address safe design and on-site fire protection and comply with applicable fire and building codes.
- **Policy PHS 2.2.3: Fire Sprinkler Systems.** The City shall promote installation of fire sprinkler systems in new commercial and residential development, and shall encourage the installation of sprinklers in existing structures when it is reasonable and not cost prohibitive.
- **Policy PHS 2.2.4: Water Supply for Fire Suppression.** The City shall ensure that adequate water supplies are available for fire-suppression throughout the city, and shall require development to construct all necessary fire suppression infrastructure and equipment.
- **Policy PHS 2.2.5: High-Rise Development.** The City shall require that high rise structures include sprinkler systems and on-site fire suppression equipment and materials, and be served by fire stations containing truck companies with specialized equipment for high-rise fire and/or emergency incidents.

Police Services

GOAL PHS1.1: Crime and Law Enforcement. Work cooperatively with the community, regional law enforcement agencies, local government and other entities to provide quality police service that protects the long-term health, safety, and well-being of our city, reduces current and future criminal activity, and incorporate design strategies into new development.

- **Policy PHS 1.1.1: Police Master Plan.** The City shall maintain and implement a Police Master Plan to address staffing and facility needs, services goals, and deployment strategies.
- **Policy PHS 1.1.2: Response Time Standards.** The City shall strive to achieve and maintain optimal response times for all call priority levels to provide adequate police services for the safety of all city residents and visitors.
- **Policy PHS 1.1.3: Staffing Standards.** The City shall maintain optimum staffing levels for both sworn police officers and civilian staffing levels for both sworn police officers and civilian support staff in order to provide quality police services to the community.
- **Policy PHS 1.1.4: Timing of Services.** The City shall ensure that development of police facilities and delivery of services keeps pace with development and growth in the city.
- **Policy PHS 1.1.5: Distribution of Facilities.** The City shall expand the distribution of police substation type facilities to allow deployment from several small facilities located strategically throughout the city and provide facilities in underserved and new growth areas in order to provide optimum response to all city residents.
- **Policy PHS 1.1.6: Co-Location of Facilities.** The City shall seek to co-located police facilities with other City facilities, such as fire stations, to promote efficient use of space and provision of police protection services within dense, urban portions of the city.
- **Policy PHS 1.1.7: Development Review.** The City shall continue to include the Police Department in the review of development proposals to ensure that projects adequately address crime and safety, and promote the implementation of Crime Prevention through Environmental Design principles.

- **Policy PHS 1.1.9: Development Fee for Facilities and Services.** The City shall work in partnership with appropriate agencies to incorporate technology in public and private development to increase public and personal safety.
- **Policy PHS 1.1.12: Cooperative Delivery of Services.** The City shall work with local, State, and Federal criminal justice agencies to promote regional cooperation in the delivery of services.

Schools

GOAL ERC 1.1: Efficient and Equitable Distribution of Facilities. Provide efficient and equitable distribution of quality educational facilities for life-long learning and development of a highly skilled workforce that will strengthen Sacramento's economic prosperity.

- **Policy ERC 1.1.1: School Locations.** The City shall work with school districts at the earliest possible opportunity to provide school sites and facilities that are located in the neighborhoods they serve.
- **Policy ERC 1.1.2: Locational Criteria.** The City shall continue to assist in reserving school sites based on each school district's criteria and the school siting guidelines of the California Department of Education and on the City's following location criteria:
  - Locate elementary schools on sites that are safely and conveniently accessible, and away from heavy traffic, excessive noise, and incompatible land uses.
  - Locate school sites centrally with respect to their planned attendance areas.
  - Locate schools in areas where established and/or planned walkways, bicycle paths, or greenways links schools with surrounding uses.
  - Locate, plan, and design new schools to be compatible with adjacent uses.
- **Policy ERC 1.1.3: Schools in Urban Areas.** The City shall work with school districts in urban areas to explore the use of existing smaller sites to accommodate lower enrollments, and/or higher intensity facilities (e.g., multi-story buildings, underground parking, and playgrounds on roofs).

Parks and Recreation

GOAL ERC 2.2: Parks, Community and Recreation Facilities and Services. Plan and develop parks, community and recreation facilities, and services that enhance community livability; improve public health and safety; are equitably distributed throughout the city; and are responsive to the needs and interests of residents, employees, and visitors.

- **Policy ERC 2.2.2: Timing of Services.** The City shall ensure that the development of parks and community and recreation facilities and services keeps pace with development and growth within the city.
- **Policy ERC 2.2.3: Service Level Radius.** The City shall strive to provide accessible public park[s] or recreational open space within one-half mile of all residences.
- **Policy ERC 2.2.4: Park Acreage Service Level Goal.** The City shall strive to develop and maintain 5 acres of neighborhood and community parks and other recreational facilities/sites per 1,000 population.
- **Policy ERC 2.2.6: Urban Park Facility Improvements.** In urban areas where land dedication is not reasonably feasible (e.g., the Central City), the City shall explore creative solutions to provide neighborhood park and recreation facilities (e.g., provision of community-serving recreational facilities in regional parks) that reflect the unique character of the area.

- **Policy ERC 2.2.9: Small Public Places for New Development.** The City shall allow new development to provide small plazas, pocket parks, civic spaces, and other gathering places that are available to the public, particularly in infill areas, to help meet recreational demands.
- **Policy ERC 2.2.10: Range of Experience.** The City shall provide a range of small to large parks and recreational facilities. Larger parks and complexes should be provided at the city's edges and along the rivers as a complement to smaller sites provided in areas of denser development.
- **Policy ERC 2.2.12: Compatibility with Adjoining Uses.** The City shall ensure that the location and design of all parks, recreation, and community centers are compatible with existing adjoining uses.

GOAL ERC 2.4: Rivers, Creeks, and Natural Resource Areas. Provide positive recreational experiences and enjoyment of nature through the development, maintenance, patrol, and preservation of the rivers, creeks, and natural resource areas, while maximizing the use of these areas through partnerships with other agencies.

- **Policy ERC 2.4.1: Service Levels.** The City shall provide 0.5 linear mile of parks/parkways and trials/bikeways per 1,000 population.
- **Policy ERC 2.4.4: Setbacks from Rivers and Creeks.** The City shall ensure adequate building setbacks from rivers and creeks, increasing them where possible to protect natural resources.

GOAL ERC 2.5: Funding. Secure adequate and reliable funding for the acquisition, development, rehabilitation, programming, and maintenance of parks, community facilities, recreation facilities, trails, parkways, and open space areas.

- **Policy ERC 2.5.4: Capital Funding.** The City shall fund the costs of acquisition and development of City neighborhood and community parks, and community and recreation facilities through land dedication, in-lieu fees, and/or development impact fees.

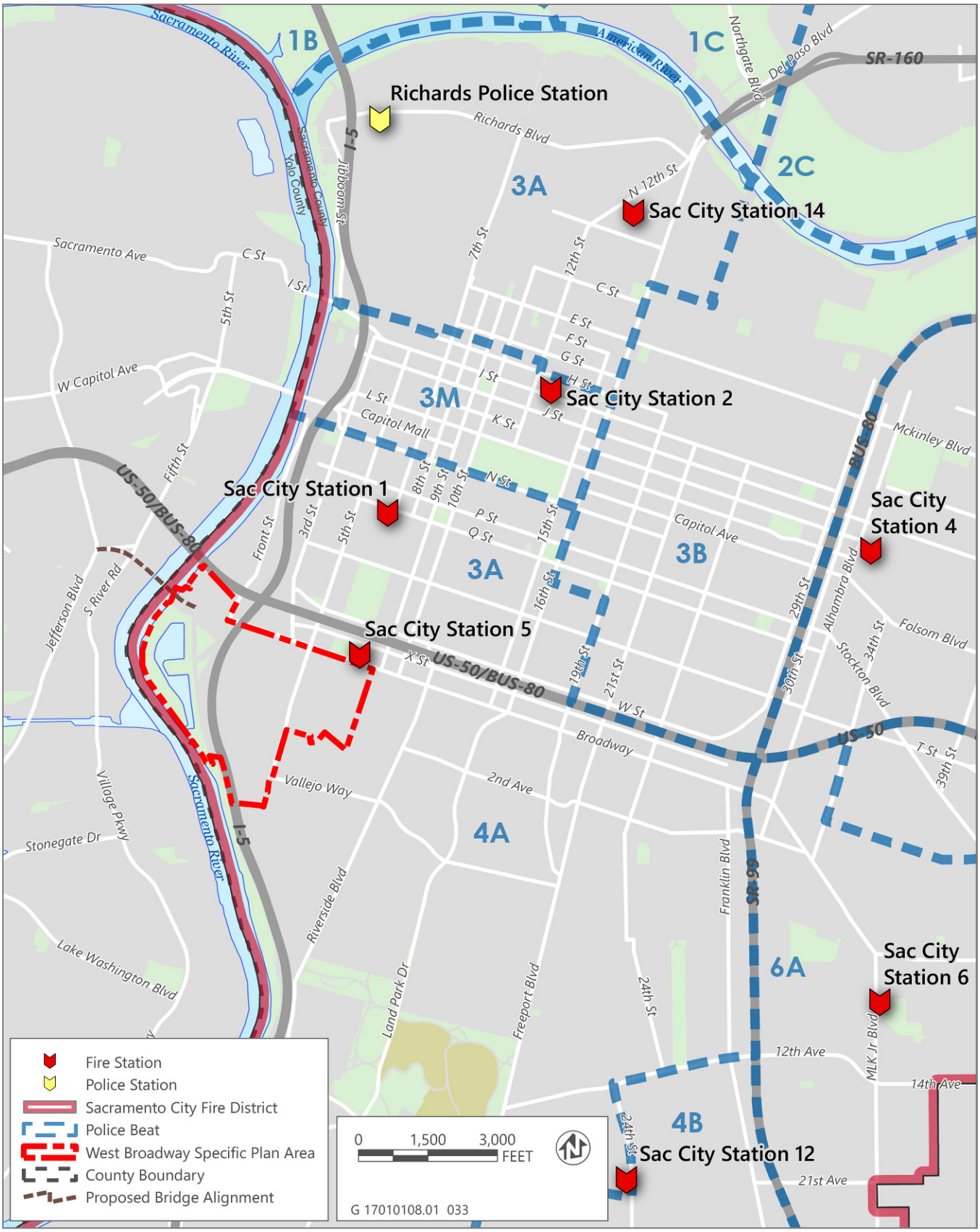
4.11.2 Environmental Setting

FIRE PROTECTION

The Sacramento Fire Department (SFD) provides fire prevention and protection services to the entire city, including the WBSP area evaluated in this EIR, and some small areas outside the city boundaries within the county (SFD 2018). The daily operating staff is 169 personnel. The SFD was budgeted with 114 full time equivalent positions in the 2019/2020 fiscal year (City of Sacramento 2019).

Under the direction of the Fire Chief, SFD is divided into three divisions: Emergency Medical Services, Fire Suppression, and Special Operations. SFD manages emergency medical services, a hazardous materials program, a domestic preparedness program, an urban search and rescue task force, and a swift water rescue program. SFD also maintains automatic aid agreements with all of its neighboring agencies, and participates in the State mutual aid response system in coordination with the California Emergency Management Agency.

Twenty-four fire stations and engine companies are strategically located throughout the city to provide assistance to area residents. Each fire station operates within a specific district that comprises the immediate geographical area around the station. Four stations are located in the downtown and western sections of the city (SFD n.d.)(Figure 4.11-1). SFD also operates 9 truck companies, one rescue company, and 16medic units (SFD 2018). During 2017, SFD responded to 91,201 incidents (City of Sacramento 2017).



Source: Data downloaded from SACOG and County of Sacramento in 2019

Figure 4.11-1 Public Safety Facilities

Fire stations closest to the WBSP include:

1. Station 5 at 731 Broadway
2. Station 1 at 624 Q St.,
3. Station 2 at 1229 I St, and
4. Station 4 at 3145 Granada Way.

Suppression companies (engines and trucks) are staffed with 4 personnel consisting of a company officer, engineer, and two firefighters. Ambulances are staffed with 2 firefighter paramedics or 1 firefighter paramedic and 1 firefighter-emergency medical technician (EMT) (SFD 2016).

Station 5 would provide first responder service to the project site. This station is equipped with one engine and one medic transport with a staff of 8 personnel. In 2017, Station 5 responded to approximately 2,250 incidents (City of Sacramento 2017). Station 1 responded to 2,536 calls in 2017 and would provide additional support to the WBSP.

The recommended standard for first-due fire unit is to arrive within 4 minutes of fire dispatch receiving the 911 call (for 90 percent of the calls) and 1-minute travel time or 2-minute total response time from fire dispatch receiving the call for an ambulance. The SFD current average response time is 5 minutes and 27 seconds to 90 percent of fire/Emergency Medical Services (EMS) incidents (SFD 2017).

An important requirement for fire suppression is adequate fire flow, which is the amount of water, expressed in gallons per minute (gpm), available to control a given fire and the length of time this flow is available. The total fire flow needed to extinguish a structural fire is based on a variety of factors, including building design, internal square footage, construction materials, dominant use, height, number of floors, and distance to adjacent buildings. Minimum requirements for available fire flow at a given building are dependent on standards set in the California Fire Code.

LAW ENFORCEMENT

California Highway Patrol

The California Highway Patrol (CHP) is responsible for law enforcement along the Interstate 5 (I-5), which traverses the Specific Plan Area. The closest CHP station to the project site is located at 1801 9th Street, approximately 1.5 miles northeast.

City of Sacramento Police Department

Police protection services are provided by the Sacramento Police Department (SPD) for areas within the city. SPD divides the City of Sacramento into multiple districts. The WBSP site is covered by Police District 3A and 4A. District 3A is served by 19 officers and District 4A is served by 76 officers (City of Sacramento 2017). Both districts would respond to calls at the site depending on the location of the call.

Patrol units for the WBSP originate at the Richards Police Facility because it is the closest facility to the project site, approximately 3.6 miles to the north from the WBSP (Exhibit 4.11-1). SPD headquarters are located at 5770 Freeport Blvd, Sacramento, California, 6 miles to the south of the project site. SPD services in the project area include mounted, bike, marine, and foot beat units (SPD 2016). The department uses a variety of data that include geographic information systems (GIS)–based data, call and crime frequency information, and available personnel on an annual basis to meet the changing law enforcement demands of the city.

SPD maintains an unofficial goal of 2 sworn police officers per 1,000 residents (City of Sacramento 2017). In 2016, SPD had 669 sworn employees and 280 civilian employees. The 2019/2020 budget provided funding for an additional 15 sworn and 22 civilian full-time equivalent (FTE) positions (City of

Sacramento 2019). The SPD is currently operating at their ratio of 2 sworn police officers per 1,000 residents. In 2016, SPD responded to Priority 2 calls (those classified as emergency situations requiring immediate police response) in approximately 10 minutes (SPD 2016). SPD does not have an adopted response time standard.

The Mounted Unit Facility Stables facility for SPD is located in Miller Regional park. The Mounted Unit patrols the K Street Mall and City parks near the mall (City of Sacramento 2007). The Mounted Unit is part of SPD's Reserve Unit consisting of 110 members ranging from reserve sergeants, officers, and community service officers. These officers assist in Backgrounds, Headquarters security, City Hall security, Academy training, and the Mounted Unit (SPD 2016).

SCHOOLS

The Sacramento City Unified School District (SCUSD) provides school services to the City of Sacramento, including the Specific Plan Area. The SCUSD serves over 46,737 students in 77 schools (SCUSD 2019). The 5 schools that serve the WBSP vicinity are Leataata Floyd Elementary School (K-8), William Land Elementary School (K-6), California Middle School (7-8), and C.K. McClatchy High School (9-12) (Figure 4.11-2). As shown in Table 4.11-1, enrollment numbers have remained relatively consistent. Currently, the elementary and middle schools have available capacity. C.K. McClatchy High School has been over capacity since the 2014/2015 school year.

Arthur A. Benjamin Health Professions High School is within the WBSP. The school currently has an enrollment of 232 with a capacity of 630 students (CDE 2019b; SCUSD 2012). This school is a district wide facility with a specialized curriculum. Students may enroll through applications during open enrollment but is not a neighborhood serving school. Therefore, potential capacity-related issues for this school are not considered further in this EIR.

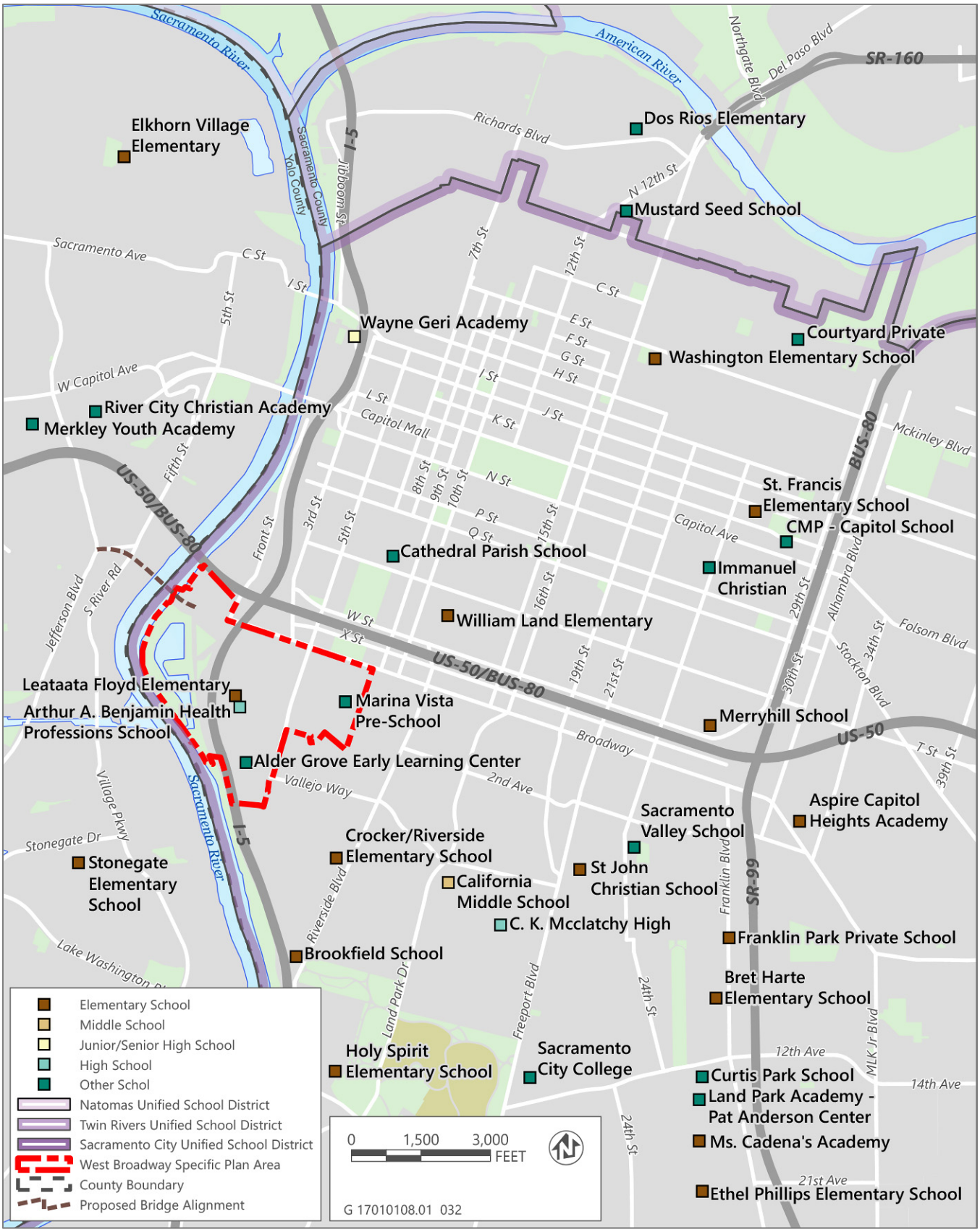
Table 4.11-1 School Enrollment

School	Number of Students						Additional Capacity	Available Capacity?
	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	School Capacity		
Leataata Floyd Elementary School (K-8)	331	356	346	354	341	730	389	Yes
William Land Elementary School (K-6)	439	466	401	433	425	504	79	Yes
California Middle School (7-8)	762	856	906	919	928	1023	95	Yes
McClatchy High School (9-12)	2239	2268	2303	2299	2375	1650	-725	No

Source: California Department of Education 2019a, SCUSD 2014

RECREATION

Recreational facilities in the vicinity of the WBSP include the Sacramento Marina and Miller Regional Park totaling 38.68 acres. Miller Regional Park includes docks, picnic areas, and river access. The Sacramento Marina, part of Miller Regional Park, provides primary access to the Sacramento River allowing for recreational activities like swimming, boating, and fishing. The Sacramento Marina, which is the largest public, off-the-river inland marina in Northern California currently contains 475 boat slips on the Sacramento River for boat owners to rent and use. These slips ranges from 25 feet to 50 feet and are covered, concrete slips. The marina's average depth is 8 feet.



Source: Data downloaded from SACOG and County of Sacramento in 2019

Figure 4.11-2 Schools and School District Boundaries

The Sacramento River is a popular place for recreational fishing and boating activities. The Sacramento River Parkway is a trail used by pedestrians or bicyclists and can be accessed by vehicle at Miller Regional Park. The Sacramento River Parkway trail connects users to other nearby trails extending to the Jedediah Smith Memorial Trail to the north and Captains Table Road in the Little Pocket neighborhood to the south. These trails connect the Sacramento River Parkway to surrounding parks outside the project area.

4.11.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The evaluation of potential impacts to public services was based on a review of documents pertaining to the proposed project, consultation with appropriate public service providers, such as SFD, CHP, SPD, and SCUSD; and field review of the project area and surroundings. Impacts to public services that would result from the project were identified by comparing existing service capacity and facilities against future demand associated with project implementation.

THRESHOLDS OF SIGNIFICANCE

A public services and recreation impact is considered significant if implementation of the project would do any of the following:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:
  - fire,
  - police protection,
  - schools,
  - parks, and
  - other public facilities;
- 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; and/or
- include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

ISSUES NOT DISCUSSED FURTHER

There are no issues not discussed further with respect to public services.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.11-1: Result in Substantial Adverse Physical Impacts Associated with the Provision of New Fire Facilities

Implementation of the WBSP would increase the level of development within the WBSP area, including the creation of additional housing facilities that would increase the population in the area. While this could warrant the need for additional fire fighters, all new development would be required to meet SFD standards and code requirements, such that substantial additional demand for service within the Specific Plan Area is not anticipated. Further, the current level of calls for service at local fire stations does not indicate the potential need for an additional fire station. As a result, the anticipated increase in population and development within the WBSP area would not trigger the need for additional fire facilities. This impact would be **less than significant**.

Implementation of the WBSP could result in the redevelopment of existing land uses with denser and predominantly residential development with some neighborhood-serving commercial. This would likely result in additional employees, residents, and visitors within the WBSP area, which could increase the demand for fire protection services. The potential increase in activity in the WBSP and new uses in the area could result in an increase in calls for fire and emergency services beyond the amount currently experienced by the SFD. As stated above, Station 5 responded to 2,250 calls and Station 1 responded to 2,536. Per Policy 2.1.4, if a station is receiving more than 3,500 calls, an additional station is required. While both these stations could receive additional calls, neither station is near the call level point at which construction of a new station would be needed.

The growth related to the WBSP has been designed to allow for residential and non-residential growth, consistent with the 2035 General Plan. As a result, growth under the WBSP would not exceed the demand of fire stations and companies already anticipated within the 2035 General Plan. Station 5 would be responsible for accommodating most of the response to additional calls as it is the closet station. Station 5 would receive assistance from the other surrounding stations that would accommodate the additional calls and activities needed to serve the WBSP population and uses.

No new fire stations are planned in the WBSP. However, there are planned stations in the vicinity of the project area that could provide services to the area. Stations 3 and 14 are scheduled to be relocated, and an additional station is planned for the downtown area. While this station has not yet been completed, it would provide additional assistance to the site.

Funding for fire protection services would come from a number of different sources, in a similar manner as police protection. All new development associated with implementation of the WBSP would be required to pay development fees into the City's General Fund to assist in funding public services, including fire protection, in the city, including fire facilities and services. Additionally, all development associated with implementation of the WBSP would be required to meet SFD standards related to access, fire hydrants, automatic sprinkler systems, fire alarm systems, water flow, and other requirements. SFD would review project construction plans and inspect the construction work as it progresses to ensure that future projects in the WBSP area meet State and local Building and Fire Code requirements.

Because additional facilities are not anticipated to be required to meet the fire protection needs of the WBSP area in the future, there would be no physical environmental effects associated with facility construction or operation beyond what is analyzed in this EIR. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. As the option represents less change compared to existing conditions and lesser development within the Specific Plan Area, lesser impacts to fire protection and emergency medical services as a result of WBSP implementation would occur. However, potential development within the remaining portions of the Specific Plan Area would be similar to the proposed WBSP, and impacts would remain **less than significant**.

Impact 4.11-2: Result in Substantial Adverse Physical Impacts Associated with the Provision of New Police Facilities

Implementation of the WBSP would increase the level of development within the WBSP area, including the creation of additional housing facilities that would increase the population in the area. While this could lead to an increased demand for police services, all new development would be required to contribute appropriate fees to the City's General Fund for any potential expansion of staffing or facilities. Additionally, new development would contribute appropriate fees that would be allocated through the City's General Fund for police protection services, both maintenance and expansion. As a result, the anticipated increase in population and development within the WBSP area would not trigger the need for additional police facilities. This impact would be **less than significant**.

Implementation of the WBSP would increase the level of residential development in the area, as well as potential additional neighborhood-serving commercial development. This would likely lead to an increase in residents, employees, and visitors to the area which could lead to an increase need for police protection services. The project site is currently located between two police districts (District 3 and District 4.) As noted above, SPD maintains an unofficial goal of 2 full time officers for every 1,000 residents, but there is not an official goal for how many officers are needed for an area. With the increase in population as a result of the WBSP, the police department might be required to hire more officers to meet that goal. Based on the population projections of the WBSP, the potential increase in population within the Specific Plan Area would require the addition of up to 18 new police officers, to maintain the unofficial goal. This growth would not exceed the demand of police officers already anticipated within the 2035 General Plan. In accordance with 2035 General Plan policy PHS 1.1.8, all future projects within the Specific Plan Area would be required to pay the appropriate taxes and fees to finance the City's General Fund. The General Fund would provide the necessary funding for the personnel increases described above.

The 2035 General Plan has policies in place to ensure the proper facilities are available for police facilities. This can include combining police facilities with fire facilities to consolidate public services. SPD does not have a response time goal or officer limit that triggers the construction of new police facilities. Because of this, the increase in population that needs more officers would not result in the need for new police facilities. Further, a new police substation is proposed to be built in the area (within the Railyards Specific Plan Area) and may be co-located with a fire station. This new facility would provide additional services to the project area but has not been constructed yet.

As development within the WBSP would be required to pay into the General Fund to support public services like police protection services, new facilities are already planned in the vicinity of the WBSP, and because the anticipated growth in demand for police officers was already anticipated by the 2035 General Plan, it is unlikely that the WBSP would require new police facilities. Further, the Mounted Unit Facility Stables facility

would not be removed as part of the WBSP and would be retained in its current location within Miller Regional Park. As a result, there would be no physical impacts associated with facility construction or operation beyond what is analyzed in this EIR. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. As the option represents less change compared to existing conditions and lesser development within the Specific Plan Area, less impact to police protection and services as a result of WBSP implementation would occur. However, potential development within the remaining portions of the Specific Plan Area would remain similar to the proposed WBSP, and impacts would also be **less than significant**.

Impact 4.11-3: Result in Substantial Adverse Physical Impacts Associated with the Provision of New School Facilities

Implementation of the WBSP would increase the level of development within the WBSP area, including the creation of additional housing facilities that would increase the population in the area. This would bring additional potential students that would attend school in the area. With respect to the four closest schools surrounding and within the Specific Plan Area, three of the schools are not at capacity while McClatchy High School has been over capacity for the past four academic years and shows no signs of reducing enrollment. Pursuant to SB 50, all development within the Specific Plan Area would be required to pay applicable school fees, which are deemed full and complete mitigation for impacts on schools. This impact would be **less than significant**.

The project would create additional residential facilities where families with school age children could live. School facilities in the WBSP and surrounding area include the four schools listed about in Table 4.11-1. These schools provide education from K-12 for students in the areas. There is additional enrollment capacity at Leataata Floyd Elementary School, William Land Elementary School, and California Middle School, however McClatchy High School is currently over capacity.

SCUSD has student generation numbers for the district divided by school level and single or multi-family (Table 4.11-2). The numbers presented for student generation rates are based on the entire district and can vary based upon the size of the development. Development that may occur with implementation of the WBSP would lead to additional student generation that, based on current student generation rates, could exceed the remaining capacity of existing neighborhood schools in addition to further contributing to existing over-enrollment at McClatchy High School. SCUSD incorporates a wide range of temporary measures to respond to changes in student enrollment at city schools that include but are not limited to splitting grade levels, temporarily transferring students to other schools with additional capacity, installation of temporary classrooms, and sending students to other neighboring school districts when appropriate. In addition, the 2035 General Plan contains policies have been developed to ensure adequate school facilities are provided to accommodate the increase in new students. Implementation of Sacramento 2035 General Plan Policies ERC 1.1.1 through ERC 1.1.3 would ensure that adequate school facilities are provided to serve the anticipated student growth in the City. As new development occurs within the Specific Plan Area, the actual student generation rate per household would be monitored to evaluate and adjust, if necessary, the student projections. Pursuant to SB 50, all development within the Specific Plan Area would be required to pay applicable school fees, which are deemed full and complete mitigation for impacts on schools.

Table 4.11-2 Student Generation in the Specific Plan Area

School Type	Generation Rate	Net Increase in Households under the WBSP	Students Generated by Development under the WBSP
Elementary (K-6)	0.19	3,787	720
Middle School (7-8)	0.03	3,787	114
High School (9-12)	0.04	3,787	152

Source: Javed pers comm 2019

The schools that would service the WBSP have the ability to accommodate the students generated from the project. The WBSP would not generate more students than those calculated by the SCUSD student generation rates. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain more of the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. As the development of recreational uses would not be anticipated to affect student generation rates or the need for additional recreational facilities, implementation of the Scenario B option would not result in different impacts compared to the proposed project. Potential development within the remaining portions of the Specific Plan Area would remain similar to the proposed WBSP, and impacts would be **less than significant**.

Impact 4.11-4: Result in Substantial Adverse Physical Impacts Associated with the Demand for or Provision of New Parks and Other Recreational Facilities

Implementation of the WBSP would increase the level of development within the WBSP area, including the creation of additional housing facilities that would increase the population in the area, which would result in an increased demand for recreational facilities, including public parks. However, all development under the WBSP would be required to comply with Chapter 18.56 Park Impact Fee (PIF) for park and recreational facilities. In addition, the WBSP includes the development of 16.8 additional acres of recreational/park space within the City. As a result, implementation of the WBSP would provide adequate recreational facilities and impacts would be **less than significant**.

Parks and Open Space

Implementation of the WBSP would allow for redevelopment of the Specific Plan Area, including improvements to the 38.68-acre Miller Regional Park. New development that could occur with implementation the WBSP includes residential uses that would increase local population and could result in an increase in demand for recreational opportunities in the area. However, the WBSP also includes additional parks and recreation space for use by residents. The physical impacts associated with the construction and operation of the additional parks and proposed modifications to the Sacramento Marina are analyzed in the appropriate technical sections of this EIR as part of the overall assessment of WBSP implementation and are not addressed further as part of this impact.

Based on a projected total population of 11,874 within the Specific Plan Area and based on the service level goal standards for the Central City and the remainder of the City of 0.875 acres per 1,000 residents and 1.75 acres per thousand residents, respectively, 36.2 acres of community-serving and neighborhood-serving parks would be needed to meet the goals for the Specific Plan Area. The Specific Plan proposes 7 acres of new neighborhood-serving parks, 1.5 of community-serving parks

(the urban farm), and 9.8 acres of regional serving parks, resulting in a deficit of 7.8 acres of neighborhood parks, 16.6 acres of community park, and 27.4 acres of regional parks. The City's 2035 General Plan supports creative solutions to providing neighborhood park and recreational facilities for urban areas, where land dedication is not reasonably feasible, such as providing community-serving recreational facilities in regional parks. Given the smaller infill parcels within the Specific Plan Area, much of the new development is anticipated to meet project park demand through in-lieu fees. The City could utilize other means that include land dedication, grants, and special land acquisition fee programs, along with enhancing the existing facilities at existing regional parks. These future parklands and changes to the existing recreational facilities are intended to improve the accessibility of underutilized facilities, such that they would serve the surrounding neighborhoods, including uses within the Specific Plan Area. Therefore, because future development within the Specific Plan Area would be required to comply with the City's Quimby and Park Impact Fees (PIF) ordinances before initiation of operation of new uses, the City would use any funds collect to ensure that City park standards reflective of urban residential needs are met through dedication of parks and open space. The City would use any collected in-lieu fees from these developments and other residential and mixed-use residential development projects to fund parks and recreational facilities a needed throughout the community, including regional parks. As a result, impacts related to the demand or provision of new parks and open space would be less than significant.

Marina

With respect to the Sacramento Marina, the proposed WBSP would result in a net reduction of 175 slips (i.e., reduced from 475 available slips to 300) within the marina. Based on available information, the average monthly occupancy of the Sacramento Marina is approximately 225 of the 475 slips (Sacramento 2014). Availability of slips is subject to change on a seasonal basis (i.e., the demand for slips increases in the summer months), however, up to a 33 percent increase in average monthly occupancy could be accommodated even with the removal of up to 175 slips under the proposed project. In addition, there are numerous other marinas along the Sacramento River and within the San Joaquin Delta (i.e., within 40 miles of the Sacramento Marina), including Riverbank Marina, River View Marina, Alamar Marina, Sherwood Marina, the Sacramento Yacht Club, Freeport Marina, Cliff's Marina, Oxbow Marina, Willow Berm Marina, and Village West Marina. Depending upon seasonal availability, any boaters that would otherwise rent slips at the Sacramento Marina would likely pursue slips at any of the above-listed marinas. There are also additional boat launch areas along the Sacramento River and dry dock (i.e., on land boat storage) locations that would allow for storage of additional boats. As a result and largely based on opportunities for boat storage and access to river waters in the greater Sacramento region, the reduction in the number of slips at the Sacramento Marina is not anticipated to necessitate the construction of additional marina space, which could result in potentially significant impacts.

Summary

As shown above, implementation of the WBSP would require the provision of additional parks and open space within the Specific Plan Area and would result in the collection of additional fees related to the provision of regional parks. In addition, adequate marina space is available in the region such that the removal of up to 175 slips as part of the proposed WBSP would not result in the need for construction or provision of additional marinas. As a result, impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would provide the same acreage of parks and open space to residents within the Specific Plan Area and surrounding areas. While the option would provide lesser diversity in terms of recreational opportunities within Miller Regional Park, the overall acreage would remain the same. Further, the potential population increases identified above for the WBSP would also occur under this option and as a result, similarly anticipated deficits in parkland acreage, compared to City standards, would occur. Through compliance with the City's Quimby and PIF ordinances, impacts would be **less than significant**, similar to the proposed project.

CUMULATIVE IMPACTS

Impact 4.11-5: Potential for the Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Public Services and Recreation

Implementation of the WBSP, in combination with other cumulative development in the area, could increase demand for public services and recreation in the area. However, through the contribution to appropriate fees to the City's General Fund and in accordance with applicable ordinances (e.g., Quimby and Park Impact Fee ordinances), the contributions of individual projects within the cumulative context would be less than cumulatively considerable. Impacts would be **less than significant**.

The cumulative context for police protection, fire protection, and emergency services is the city of Sacramento, which is the service area for both the City of Sacramento Fire Department and Police Department. The cumulative context for school services is the SCUSD, and the cumulative context for parks and recreation facilities is the Specific Plan Area and recreational facilities within the City and within two miles of the Specific Plan Area. As noted above, the WBSP, itself, would not expand the service area of these existing public service providers within the City of Sacramento and is not anticipated to result in substantial demand for public services such that new facilities would be required as a result of plan implementation. Cumulative development in the region, including development within the Central City Specific Plan Area, would result in the concentration of persons and structures within these local public service jurisdictions and could increase demands for such services and recreation/park facilities. Although the WBSP would also increase demand for public services and recreation, no additional facilities would be needed to serve the project site, and development under the WBSP would be required to pay impact fees as required by the City and SCUSD to ensure the adequate provision of public services in the future. The contribution of fees for the provision of services to the City and SCUSD as a whole would reduce a project's incremental contribution to the need for public services and recreation/park facilities within the cumulative context such that the project would not result in a cumulatively considerable contribution. As a result, a significant cumulative public services and recreation impact would not occur with implementation of the WBSP and other development. Therefore, cumulative impacts to public services and recreation would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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4.12 TRANSPORTATION AND CIRCULATION

This section describes the existing transportation system in the vicinity of the West Broadway Specific Plan (WBSP) and evaluates the potential impacts on the system associated with implementation of the WBSP. Roadway, transit, bicycle, and pedestrian components of the overall transportation system are included in the analysis. Impacts are evaluated under near-term (present-day) conditions with and without the project, and cumulative (year 2036) conditions with project. The traffic analysis focuses on a specific project study area for transportation and circulation, which is defined in Section 4.12.3, "Environmental Setting," below.

Comments related to transportation and circulation that were received in response to the Notice of Preparation for this EIR included a request for a multi-modal transportation impact analysis, a request to consider participation in the Interstate 5 (I-5) Subregional Corridor Mitigation Program, and the potential need for an encroachment permit for any work within California Department of Transportation (Caltrans) right-of-way.

4.12.1 Analysis Scenarios

The following scenarios are analyzed in this EIR:

- Existing Conditions – represents the baseline condition, upon which project impacts are measured. The baseline condition represents conditions in 2018.
- Existing-Plus-Project Conditions – reflects changes in travel conditions associated with implementation of the proposed project.
- Cumulative-No-Project Conditions – reflects conditions for a cumulative (year 2036) scenario, which includes reasonably foreseeable land uses, planned transportation improvement projects, without proposed project implementation.
- Cumulative-Plus-Project Conditions – represents conditions for a cumulative scenario, which includes reasonably foreseeable land uses, planned transportation improvement projects, and WBSP implementation.

4.12.2 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to transportation and circulation are applicable to the WBSP. However, federal regulations relating to the Americans with Disabilities Act, Title VI, and Environmental Justice relate to transit service.

STATE

Interstate 5 Transportation Corridor Concept Report

In 2017, Caltrans released the *Interstate 5 Transportation Corridor Report* (TCR) that includes portions of I-5 within the study area. Figure 1 of this report shows existing operations on I-5 within the study area as being at level of service (LOS) F. The report also indicates an Ultimate Concept LOS E for this corridor. The concept LOS represents the minimum acceptable service conditions over the next 20

years with buildout of the ultimate planned freeway facilities. The TCR indicates that for existing LOS F conditions, no further degradation is permitted as indicated by the applicable performance measure.

US 50 Transportation Concept Report and Corridor System Management Plan

In 2014, Caltrans released the *United States Route 50 Transportation Concept Report and Corridor System Management Plan* for portions of United States Route 50 (US 50) within the study area. Table 13 of this report shows existing operations on US 50 as being at LOS F. The report also indicates a Concept LOS E for this corridor.

The above-referenced Caltrans LOS results are based on daily volume-to-capacity comparisons and do not necessarily consider specific operational characteristics (e.g., length of weave sections, peak hour factors, etc.) within the I-5 and US 50 corridors. Nevertheless, these data are valuable in understanding Caltrans' expectations of their current and projected operating performance.

Senate Bill 743

Senate Bill 743 (SB 743), passed in 2013, required the California Governor's Office of Planning and Research (OPR) to develop new CEQA guidelines that address traffic metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any." OPR recently updated its CEQA Guidelines to implement SB 743 to require that vehicle miles traveled (VMT) be the primary metric used to identify transportation impacts. Local agencies have an opt-in period until July 1, 2020.

The enactment of SB 743 established CEQA exemptions for certain qualifying projects. Specifically, Public Resource Code section 21155.4 states the following:

"(a) Except as provided in subdivision (b), a residential, employment center, as defined in paragraph (1) of subdivision (a) of Section 21099, or mixed use development project, including any subdivision, or any zoning change, that meets all of the following criteria is exempt from the requirements of this division:

1) The project is proposed within a transit priority area, as defined in subdivision (a) of Section 21099.

2) The project is undertaken to implement and is consistent with a specific plan for which an environmental impact report has been certified.

3) The project is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy for which the State Air Resources Board, pursuant to subparagraph (H) of paragraph (2) of subdivision (b) of Section 65080 of the Government Code, has accepted a metropolitan planning organization's determination that the sustainable communities strategy or the alternative planning strategy would, if implemented, achieve the greenhouse gas emissions reduction targets.

(b) Further environmental review shall be conducted only if any of the events specified in Section 21166 have occurred."

Public Resources Code (PRC) Section 21099 defines a transit priority area as follows:

- "Transit Priority Area" is an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included

in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations.

PRC Section 21064.3 defines a major transit stop as follows:

- "Major transit stop" means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

The City of Sacramento is currently engaged in a process to update the transportation performance metrics and thresholds used to measure transportation system impacts of discretionary projects as part of its 2040 General Plan. For the purposes of this EIR, the transportation analysis evaluates transportation impacts using both VMT and LOS.

REGIONAL

The Sacramento Area Council of Governments (SACOG) is responsible for the preparation of, and updates to, the 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and the corresponding Metropolitan Transportation Improvement Program (MTIP) for the six-county Sacramento region (SACOG 2016). The MTP/SCS provides a 20-year transportation vision and corresponding list of projects. The MTIP identifies short-term projects (7-year horizon) in more detail. The current MTP/SCS was adopted by the SACOG board in 2016.

LOCAL

City of Sacramento 2035 General Plan

On March 3, 2015, the City Council adopted the 2035 General Plan. The Mobility Element of the City's 2035 General Plan outlines goals and policies that coordinate the transportation and circulation system with planned land uses. The following goals and policies are relevant to this study:

GOAL M 1.1: Comprehensive Transportation System. Provide a multimodal transportation system that supports the social, economic and environmental vision, goals, and objectives of the City, and is effectively planned, funded, managed, operated, and maintained.

- **Policy M 1.1.1: Right-of-Ways.** The City shall preserve and manage rights-of-way consistent with: the circulation diagram, the City Street Design Standards, the goal to provide Complete Streets as described in Goal M 4.2, and the modal priorities for each street segment and intersection established in Policy M4.4.1: Roadway Network Development, Street Typology System.

GOAL M 1.2: Multimodal System. Increase multimodal accessibility (i.e., the ability to complete desired personal or economic transactions via a range of transportation modes and routes) throughout the city and region with an emphasis on walking, bicycling, and riding transit.

- **Policy M 1.2.1: Multimodal Choices.** The City shall develop an integrated, multimodal transportation system that improves the attractiveness of walking, bicycling, and riding transit over time to increase travel choices and aid in achieving a more balanced transportation system and reducing air pollution and greenhouse gas emissions.

- **Policy M 1.2.2: The City shall implement a flexible context-sensitive Level of Service (LOS) standard, and will measure traffic operations against the vehicle LOS thresholds established in this policy.** The City will measure vehicle LOS based on the methodology contained in the latest version of the Highway Capacity Manual (HCM) published by the Transportation Research Board. The City's specific vehicle LOS thresholds have been defined based on community values with respect to modal priorities, land use context, economic development, and environmental resources and constraints. As such, the City has established variable LOS thresholds appropriate for the unique characteristics of the City's diverse neighborhoods and communities. The City will strive to operate the roadway network at LOS D or better for vehicles during typical weekday conditions, including AM and PM peak hour with the following exceptions described below and mapped on Figure M-1 (displayed in the General Plan):

    a. Core Area (Central City Community Plan Area) - LOS F allowed

    b. Priority Investment Areas – LOS F allowed

    c. LOS E roadways (11 distinct segments listed). LOS E is also allowed on all roadway segments and associated intersections located within ½ mile walking distance of a light rail stations.

    d. LOS F roadways (24 distinct segments listed)

    e. If maintaining the above LOS standards would, in the City‘s judgment, be infeasible and/or conflict with the achievement of other goals, LOS E or F conditions may be accepted provided that provisions are made to improve the overall system, promote non vehicular transportation and/or implement vehicle trip reduction measures as part of a development project or a city-initiated project. Additionally, the City shall not expand the physical capacity of the planned roadway network to accommodate a project beyond that identified in Figure M4 and M4A (2035 General Plan Roadway Classification and Lanes).

As shown on Figure M1 (Vehicle Level of Service Exception Areas) of the City's 2035 General Plan, the portion of the WBSP located west of I-5 is situated within one of three Tier 1 Priority Investment Areas. Additionally, the Specific Plan Area is also located just south of the Core Area, which is bounded by the Sacramento River, American River, Broadway, and Alhambra Boulevard. Several study intersections are located within the Core Area and/or within a Priority Investment Area.

- **Policy M 1.2.3: Transportation Evaluation.** The City shall evaluate discretionary projects for potential impacts to traffic operations, traffic safety, transit service, bicycle facilities, and pedestrian facilities, consistent with the City's Traffic Study Guidelines.

- **Policy M 1.2.4: Multimodal Access.** The City shall facilitate the provision of multimodal access to activity centers such as commercial centers and corridors, employment centers, transit stops/stations, airports, schools, parks, recreation areas, medical centers, and tourist attractions.

GOAL M 1.3: Barrier Removal. Improve accessibility and system connectivity by removing physical and operational barriers to safe travel.

- **Policy M 1.3.1: Grid Network.** To promote efficient travel for all modes, the City shall require all new residential, commercial, or mixed-use development that proposes or is required to construct or extend streets to develop a transportation network that is well-connected, both internally and to off-site networks preferably with a grid or modified grid-form.

- **Policy M 1.3.2: Eliminate Gaps.** The City shall eliminate "gaps" in roadways, bikeways, and pedestrian networks. To this end:

    a. The City shall construct new multi-modal crossings of the Sacramento and American Rivers

    b. The City shall plan and pursue funding to construct grade-separated crossing of freeways, rail lines, canals, creeks, and other barriers to improve connectivity.

    c. The City shall construct new bikeways and pedestrian paths in existing neighborhoods to improve connectivity.

- **Policy M 1.3.3: Improve Transit Access.** The City shall support RT in addressing identified gaps in public transit networks by working with RT to appropriately locate passenger facilities and stations, pedestrian walkways and bicycle access to transit stations and stops, and public rights of way as necessary for transit- only lanes, transit stops, and transit vehicle stations and layover.

- **Policy M 1.3.4: Barrier Removal for Accessibility.** The City shall remove barriers, where feasible, to allow people of all abilities to move freely and efficiently throughout the city.

- **Policy M 1.3.5: Connections to Transit Stations.** The City shall provide and improve connections to transit stations by identifying, roadways, bikeways and pedestrian improvements within walking distance (1/2 mile) of existing and planned transit stations. Such improvements shall emphasize the development of complete streets.

GOAL M 2.1: Integrated Pedestrian System. Design, construct, and maintain a universally accessible, safe, convenient, integrated and well-connected pedestrian system that promotes walking.

- **Policy M 2.1.2: Sidewalk Design.** The City shall require that sidewalks wherever possible be developed at sufficient width to accommodate all users including persons with disabilities and complement the form and function of both the current and planned land use context of each street segment (i.e., necessary buffers, amenities, outdoor seating space).

- **Policy M 2.1.3: Streetscape Design.** The City shall require that pedestrian-oriented streets be designed to provide a pleasant environment for walking and other desirable uses of public space, including such elements as shade trees; plantings; well-designed benches, trash receptacles, news racks, and other furniture; pedestrian-scaled lighting fixtures; wayfinding signage; integrated transit shelters; public art; and other amenities.

- **Policy M 2.1.4: Cohesive and Continuous Network.** The City shall develop a pedestrian network of public sidewalks, street crossings, and other pedestrian paths that makes walking a convenient and safe way to travel citywide. The network should include a dense pattern of routes in pedestrian-oriented areas such as the Central City and include wayfinding where appropriate.

- **Policy M 2.1.7: Safe Pedestrian Crossings.** The City shall improve pedestrian safety at appropriate intersections and mid-block locations by providing safe pedestrian crossings.

- **Policy M 2.1.9: Safe Sidewalks.** The City shall require pedestrian facilities to be constructed in compliance with adopted design standards.

GOAL M 3.1: Safe, Comprehensive, and Integrated Transit System. Create and maintain a safe, comprehensive, and integrated transit system as an essential component of a multimodal transportation system.

- **Policy M 3.1.1: Transit for All.** The City shall support a well-designed transit system that provides accessibility and mobility for all Sacramento residents, workers and visitors. The City shall enhance bicycle and pedestrian access to stations.
- **Policy M 3.1.2:** Increase Transit Service. The City shall work with transit operators and community partners to increase public transit service (i.e. frequency, number of lines and stops, dedicated transit lanes) above and beyond what is already planned in the MTP/SCS, as funding is available.
- **Policy M 3.1.3: Expand Transit Coverage.** The City shall work with transit operators and community partners to develop and implement a policy that expands affordable public transportation coverage to within walking distance of all city residents, as funding is available.
- **Policy M 3.1.5: Variety of Transit Types.** The City shall consider a variety of transit types including high speed rail, intercity rail, regional rail, light rail transit, bus rapid transit, trolleys (streetcars), enhanced buses, express buses, local buses, car sharing, bike sharing, neighborhood shuttles, pedi-cabs, and jitneys to meet the needs of residents, workers, and visitors.

GOAL M 4.1: Street and Roadway System. Create a context-sensitive street and roadway system that provides access to all users and recognizes the importance that roads and streets play as public space. As such, the City shall strive to balance the needs for personal travel, goods movement, parking, social activities, business activities, and revenue generation, when planning, operating, maintaining, and expanding the roadway network.

- **Policy M 4.1.1: Emergency Access.** The City shall develop a roadway system that is redundant (i.e., includes multiple alternative routes) to the extent feasible to ensure mobility in the event of emergencies.

GOAL M 4.2: Complete Streets. The City shall plan, design, operate and maintain all streets and roadways to accommodate and promote safe and convenient travel for all users – pedestrians, bicyclists, transit riders, and persons of all abilities, as well as freight and motor vehicle drivers.

- **Policy M 4.2.1: Accommodate All Users.** The City shall ensure that all new roadway projects and any reconstruction projects designate sufficient travel space for all users including bicyclists, pedestrians, transit riders, and motorists except where pedestrians and bicyclists are prohibited by law from using a given facility.
- **Policy M 4.2.2: Pedestrian and Bicycle-Friendly Streets.** In areas with high levels of pedestrian activity (e.g., employment centers, residential areas, mixed-use areas, schools), the City shall ensure that all street projects support pedestrian and bicycle travel. Improvements may include narrow lanes, target speeds less than 35 miles per hour, sidewalk widths consistent with the Pedestrian Master Plan, street trees, high-visibility pedestrian crossings, and bikeways (e.g., Class II and Class III bike lanes, bicycle boulevards, separated bicycle lanes and/or parallel multiuse pathways).
- **Policy M 4.2.5: Multi-Modal Corridors.** Consistent with the Roadway Network and Street Typologies established in this General Plan, the City shall designate multimodal corridors in the Central City, within and between urban centers, along major transit lines, and/or along commercial corridors appropriate for comprehensive multimodal corridor planning and targeted investment in transit, bikeway, and pedestrian path improvements if discretionary funds become available.
- **Policy M 4.2.6: Identify and Fill Gaps in Complete Streets.** The City shall identify streets that can be made “complete” either through a reduction in the number or width of travel lanes or through two-way conversions, with consideration for emergency vehicle operations. The City shall consider including new bikeways, sidewalks, on-street parking, and exclusive transit lanes on these streets

by re- arranging and/or re-allocating how the available space within the public right of way issued. All new street configurations shall provide for adequate emergency vehicle operation.

GOAL M 4.3: Neighborhood Traffic. Enhance the quality of life within existing neighborhoods through the use of neighborhood traffic management and traffic calming techniques, while recognizing the City's desire to provide a grid system that create a high level of connectivity.

- **Policy 4.3.1: Neighborhood Traffic Management.** The City shall continue wherever possible to design streets and approve development applications in a manner as to reduce high traffic flows and parking problems within residential neighborhoods.
- **Policy 4.3.2: Traffic Calming Measures.** Consistent with the Roadway Network and Street Typology policies in this General Plan and Goal M 4.3, the City shall use traffic calming measures to reduce vehicle speeds and volumes while also encouraging walking and bicycling.

GOAL M 5.1: Integrate Bicycle System. Create and maintain a safe, comprehensive, and integrated bicycle system and set of support facilities throughout the city that encourage bicycling that is accessible to all. Provide bicycle facilities, programs, and services and implement other transportation and land use policies as necessary to achieve the City's bicycle mode share goals as documented in the Bicycle Master Plan.

- **Policy M 5.1.1: Bicycle Master Plan.** The City shall maintain and implement a Bicycle Master Plan that carries out the goals and policies of the General Plan. All new development shall be consistent with the applicable provisions of the Bicycle Master Plan.
- **Policy M 5.1.2: Appropriate Bikeway Facilities.** The City shall provide bikeway facilities that are appropriate to the street classifications and type, number of lanes, traffic volume, and speed on all rights-of-way.
- **Policy M 5.1.3: Continuous Bikeway Network.** The City shall provide a continuous bikeway network consisting of bike-friendly facilities connecting residential neighborhoods with key destinations and activity centers (e.g., transit facilities, shopping areas, education institutions, employment centers).
- **Policy M 5.1.4: Conformance to Applicable Standards.** The City shall require all bikeways to conform to applicable Federal, State, and City standards while considering a full range of innovative bikeway design best practices.
- **Policy M 5.1.6: Connections between New Development and Bicycle Facilities.** The City shall require that new development provides connections to and does not interfere with existing and proposed bicycle facilities.

I-5 Freeway Subregional Corridor Mitigation Program

The I-5 Freeway Subregional Corridor Mitigation Program (SCMP) is a voluntary development impact fee for new developments within the I-5 corridor between Elk Grove, Downtown Sacramento, and West Sacramento that is intended to be used to construct a set of transportation improvements identified in the SACOG 2016 MTP/SCS. Under the SCMP, a project applicant whose project would generate vehicle trips over the threshold could choose to either pay the fee, which would constitute mitigation of their development project's impacts on the freeway mainline, or conduct a Traffic Impact Study, which would evaluate that project's impact on the freeway system and identify mitigation for those impacts.

According to the Draft Final Nexus Study for the I-5 Freeway Subregional Corridor Mitigation Program (DKS Associates January 2016), the following roadway improvements would be partially funded by the plan (with the remainder coming from other sources):

- extension of light rail from the Township 9/Richards station to Natomas Center,
- new bridge across the American River,
- two new bridges across the Sacramento River,
- reconstruction of I-5/Richards Boulevard Interchange,
- construction of HOV lanes on I-5 from Elk Grove to US 50, and
- construction of a transition lane on I-5 between the Garden Highway off- and on-ramps.

Page 36 of the study specifies that "Caltrans would consider the fees as an adequate mitigation for freeway mainline impacts." Table 18 on Page 32 of the Nexus Study shows the proposed fee per dwelling unit, and per thousand square feet of non-residential space.

4.12.3 Environmental Setting

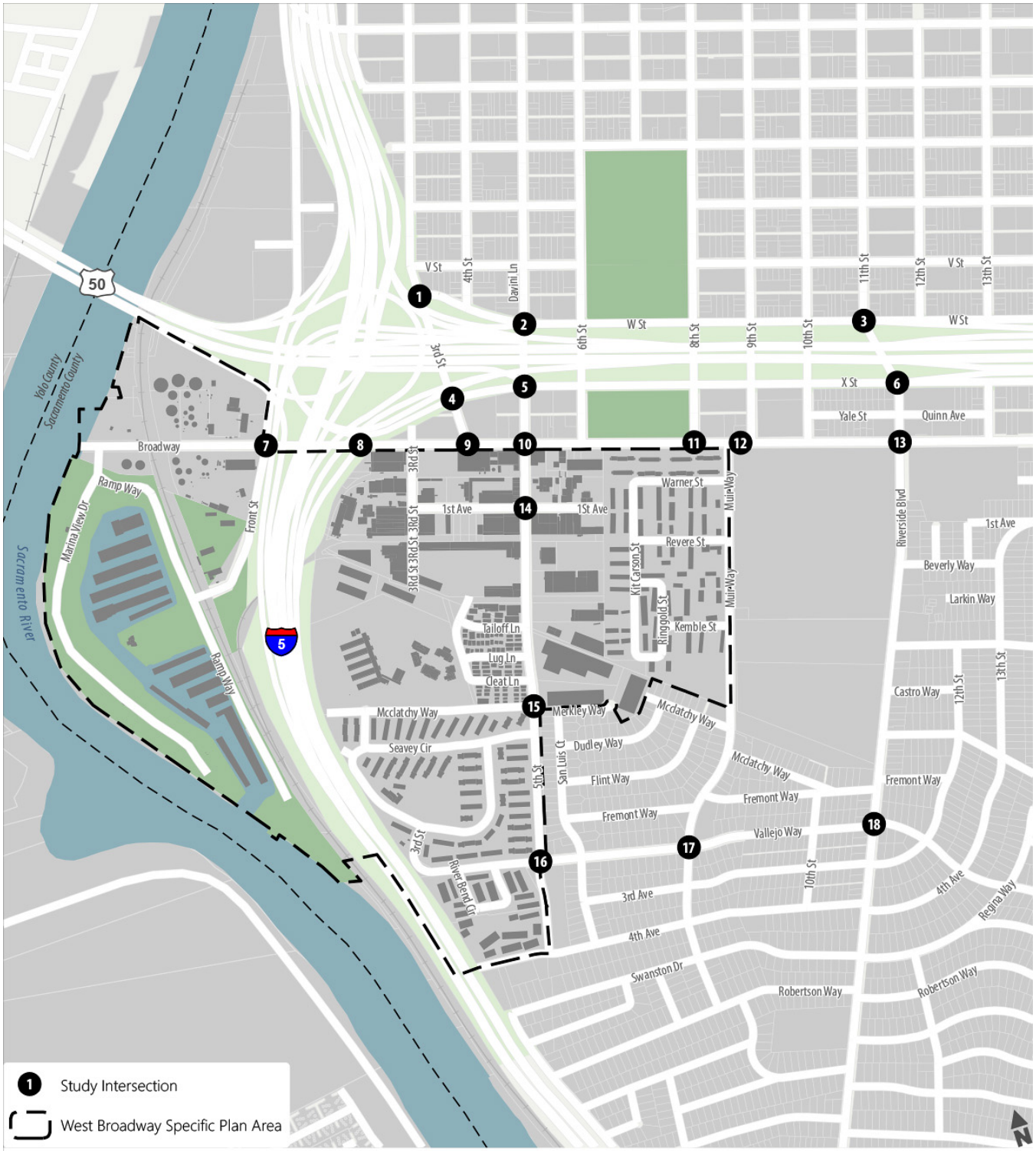
This section describes the existing environmental setting, which is the baseline scenario upon which project-specific impacts are evaluated. The baseline for this study represents conditions based on data collection and field observations conducted in 2018. The environmental setting for transportation includes baseline descriptions for roadway, bicycle, pedestrian, and transit facilities.

PROJECT STUDY AREA

An extensive study area was developed based on collaboration between the EIR consultants and City staff and took into consideration the Notice of Preparation comment letters. The following factors were considered when developing the study area: the WBSP's expected travel characteristics (including number of vehicle trips and directionality of those trips), primary travel routes to/from/through the specific plan vicinity, mode split, and other considerations. Figure 4.12-1 shows the study area, the WBSP boundary, and the 18 study intersections selected for analysis. The study area also includes bicycle, pedestrian, and transit facilities in the vicinity.

Intersections

1. W Street / 3rd Street
2. W Street / 5th Street
3. W Street / 11th Street / Riverside Blvd
4. X Street / 3rd Street
5. X Street / 5th Street
6. X Street / Riverside Blvd
7. Broadway / Front Street
8. Broadway / I-5 northbound (NB) Off-Ramp
9. Broadway / 3rd Street (N)
10. Broadway / 5th Street
11. Broadway / 8th Street
12. Broadway / Muir Way / 9th Street
13. Broadway / Riverside Blvd
14. 1st Ave / 5th Street
15. McClatchy Way / 5th Street
16. Vallejo Way / 5th Street
17. Vallejo Way / Muir Way
18. Vallejo Way / Riverside Blvd



Source: Image prepared and provided by Fehr & Peers in 2019

Figure 4.12-1 Study Area

Roadway Network

The following key freeways and roadways within the study area would serve trips associated with the WBSP. The roadway number of lanes, speeds, and direction are displayed in Figure 4.12-2.

Business 80/U.S. Highway-50 (U.S. 50) is a freeway that extends from Interstate 80 in West Sacramento to the State Route 99/ U.S. 50 interchange in Midtown Sacramento. Business 80 then extends northward to rejoin Interstate 80 near Watt Avenue, while U.S. 50 continues east to South Lake Tahoe and points beyond. Within the study area, Business 80/ U.S. 50 has twelve lanes east of the I-5 interchange with five mainline lanes plus one auxiliary lane in the eastbound direction, and four mainline lanes plus two lanes that exit to I-5 in the westbound direction. On the structure crossing I-5 and the Sacramento River, Business 80/ U.S. 50 has eight lanes with four mainline lanes in the eastbound direction, and three mainline lanes plus one auxiliary lane in the westbound direction. Local access from Business 80/ U.S. 50is provided by on and off-ramps at 5th Street, an eastbound on-ramp on X Street, and a westbound off-ramp at W Street.

Interstate 5 is a freeway that extends the length of California into Oregon and Washington. Within the study area, I-5 serves as a vital link between primarily residential neighborhoods in South Sacramento and the Central Business District. Immediately south of the interchange with Business 80/ U.S. 50, I-5 is a ten-lane freeway. At its undercrossing of Business 80/ U.S. 50, I-5 is a six-lane freeway with three mainline lanes in each direction. Local access from I-5 is provided by a northbound off-ramp at Broadway and a southbound off-ramp at 3rd Street (via the U.S. 50 eastbound (EB) connector ramp).

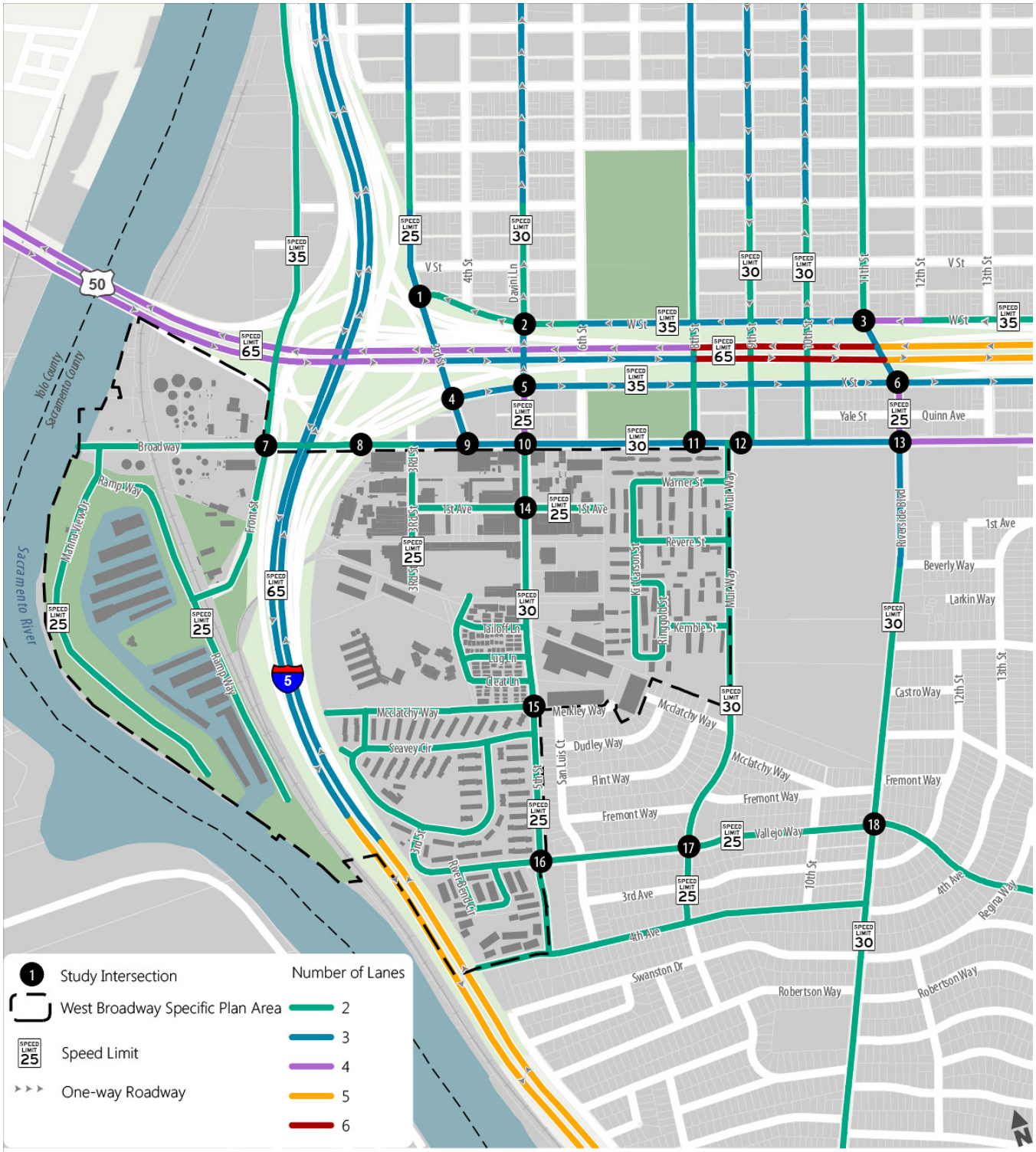
W Street is a one-way westbound arterial roadway that travels along the north side of Business 80/ U.S. 50, and functions as a frontage road for the freeway. Within the study area, most segments of W Street have three lanes. On-street parking is allowed on the north side of the roadway. W Street has a posted speed limit of 35 mph.

X Street is a one-way eastbound arterial that forms a couplet with W Street. X Street begins at 3rd Street (north) and ends at Alhambra Boulevard. It runs along the south side of Business 80/ U.S. 50and serves as a frontage road for the freeway. X Street has three lanes with on-street parking allowed on the south side. It has a posted speed limit of 35 mph.

Broadway is an east-west roadway designated as an arterial by the City of Sacramento 2035 General Plan. Broadway runs from the Sacramento River in the west to 65th Street. Broadway narrows from two westbound travel lanes to a single lane at Riverside Boulevard. Similarly, the eastbound direction of Broadway widens from one to two travel lanes at Muir Way. West of Muir Way, Broadway features one travel lane in each direction, a two-way left turn lane, on-street parking and bicycle lanes. It has a posted speed limit of 30 mph.

Vallejo Way is a two-lane residential street that begins west of 5th Street and extends easterly through the Upper Land Park and Land Park neighborhoods. It intersects Muir Way, Riverside Boulevard, and Land Park Drive. It has a posted speed limit of 25 mph. Between 5th Street and Muir Way, Vallejo Way features speed humps, median pedestrian refuge islands, horizontal deflection, speed legend pavement markings, striped crosswalks, centerline striping, and all-way stop-controlled residential intersections, which act as traffic calming devices.

Front Street is a two-lane, north-south roadway, on the western side of the study area and adjacent to the Sacramento River. The roadway connects to Downtown and Old Sacramento to the north and the Sacramento Marina to the south of Broadway. Bike lanes exist along both sides of the roadway; however, sidewalks and on-street parking are intermittent. The posted speed limit is 35 mph.



Source: Image prepared and provided by Fehr & Peers in 2019

Figure 4.12-2 Existing Roadway Network

3rd Street is a north-south street on the western side of the study area. 3rd Street is discontinuous on either side of Broadway, creating two nearby intersections. North of Broadway, 3rd Street is a one-way southbound arterial between W Street and X Street and two-way between X Street and Broadway. South of Broadway, 3rd Street is a two-lane collector that extends through the Specific Plan Area, terminating south of 1st Avenue.

5th Street is a two-lane collector south of Broadway with a posted speed limit of 30 mph. Portions of this street permit on-street parking. North of Broadway, 5th Street is classified as an arterial. The segment immediately north of Broadway has two lanes in each direction, and north of X Street it becomes a one-way street with three northbound lanes.

Muir Way is a two-lane, north-south street that terminates at Broadway to the north and is offset from 9th Street. Narrow bike lanes exist between Warner Street and McClatchy Way. No sidewalks or on-street parking exists along the east side of the roadway that is adjacent to the Sacramento Historic City Cemetery and Masonic Lawn Cemetery. The posted speed limit is 30 mph north of Vallejo Way and 25 mph south of Vallejo Way.

8th Street is a two to three-lane, north-south street that terminates at Broadway to the south. In the study area, the roadway is a two-way street; north of T Street it becomes a three-lane northbound only roadway. Sidewalks and on-street parking exists along both sides of the roadway. The speed limit is 25 miles per hour.

9th Street is a two-lane, one-way southbound street that terminates to the south at Broadway, offset approximately 150 feet to the east from Muir Way. This roadway serves as a couplet with 10th Street. Sidewalks, bike lanes, and on-street parking exist along both sides of the street. The posted speed limit is 30 mph.

10th Street is a two-lane, one-way northbound street that terminates to the south at Broadway. This roadway serves as a couplet with 9th Street. Sidewalks, bike lanes, and on-street parking exist along both sides of the street. The posted speed limit is 30 mph.

Riverside Boulevard is a two to four lane, two-way north-south roadway. The roadway transitions into 11th Street north of W Street. No sidewalks or on-street parking exist along the west side of the roadway adjacent to the Sacramento Historic City Cemetery and Masonic Lawn Cemetery. Bicycle lanes exist along both sides of the street. The posted speed limit is 30 mph.

Traffic calming devices that exist within the Specific Plan Area manage traffic speeds on certain neighborhood streets, and include pedestrian refuge islands at crosswalks, speed humps, and horizontal deflection. These are shown in Figure 4.12-3.

Truck Routes

All federal and state highways within the City of Sacramento have been designated as truck routes by Caltrans and are included in the National Network for Service Transportation Assistance Act (STAA) of 1982. Within the study area, the City of Sacramento also identifies Broadway, Riverside Boulevard, 3rd Street (north of Broadway), and 5th Street (north of Broadway) as truck routes.

Source: Image prepared and provided by Fehr & Peers in 2019

Figure 4.12-3 Existing Traffic Calming Measures

TRAFFIC DATA COLLECTION

Transportation data used in the analysis of existing conditions was collected in 2017 and 2018. Traffic volume counts were conducted during the AM peak period (7-9 AM) and PM peak period (4-6 PM) in May 2017 and April 2018 on a midweek day (Tuesday, Wednesday, or Thursday), during which weather conditions were generally dry and the Sacramento City Unified School District was in full session. In addition, the counts included pedestrian and bicycle activity at each of the study intersections. Please refer to Appendix G for the traffic count data.

STUDY PERIODS

Based on the traffic data collection, the AM peak hour within the study area occurs from 7:45-8:45 AM, and the PM peak hour occurs from 4:45-5:45 PM.

ROADWAY SYSTEM

Traffic operations at all study intersections were analyzed under weekday AM and PM peak hour conditions using procedures and methodologies contained in the Highway Capacity Manual for calculating delay at intersections (Transportation Research Board 2016). These methodologies were applied using the SimTraffic software program, which considers the effects of lane utilization, turn pocket storage lengths, upstream/downstream queue spillbacks, coordinated signal timings, pedestrian crossing activity, and other conditions on intersection and overall corridor operations. Use of SimTraffic microsimulation analysis is appropriate given the presence of coordinated signal timing plans, close spacing of signalized intersections, and overall levels of traffic and peak hour congestion within the study area. Reported results are based on an average of 10 model runs. The following procedures and assumptions were applied in the development of the SimTraffic model:

- Roadway geometric data were gathered using aerial photographs and field observations.
- Peak hour traffic volumes were entered into the model according to the peak hour of the study area.
- The peak hour factor (PHF) was set at 1.0 in accordance with City of Sacramento Traffic Impact Study Guidelines.
- The counted pedestrian and bicycle volumes were entered into the model according to the peak hour measurements.
- Signal phasing and timings were based on existing signal timing plans provided by the City of Sacramento and field observations.
- Speeds for the model network were based on the posted speed limits.

Level of Service Definitions

Each study intersection was analyzed using the concept of LOS. LOS is a qualitative measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving. In general, LOS A represents free-flow conditions with no congestion, and LOS F represents severe congestion and delay under stop-and-go conditions. Table 4.12-1 displays the delay range associated with each LOS category for signalized and unsignalized intersections.

Table 4.12-1 Intersection Level of Service Definitions

Level of Service	Description (for Signalized Intersections)	Average Delay (Seconds/Vehicle)	
		Signalized Intersections	Unsignalized Intersections
A	Operations with very low delay occurring with favorable traffic signal progression and/or short cycle lengths.	≤ 10.0	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10.0 to 20.0	> 10.0 to 15.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20.0 to 35.0	> 15.0 to 25.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35.0 to 55.0	> 25.0 to 35.0
E	Operations with high delay values indicating poor progression, and long cycle lengths. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	> 55.0 to 80.0	> 35.0 to 50.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	> 80.0	> 50.0

Note: LOS = level of service; V/C ratio= volume-to-capacity ratio

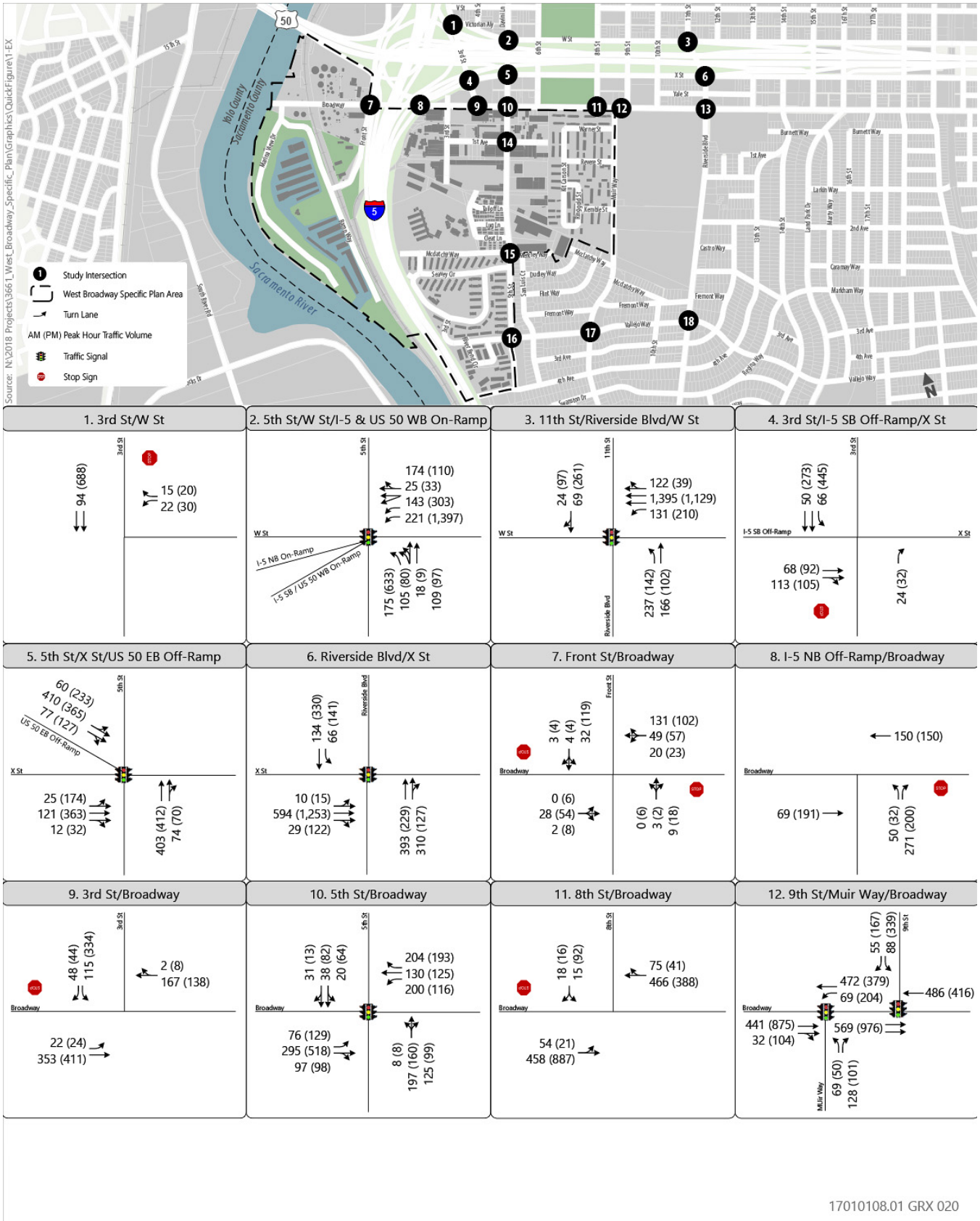
LOS at signalized intersections and roundabouts based on average delay for all vehicles. LOS at unsignalized intersections is reported for entire intersection and for minor street movement with greatest delay.

Source: Transportation Research Board 2016.

For signalized intersections, LOS is based on the average delay experienced by all vehicles passing through the intersection. For side-street stop-controlled intersections, the delay and LOS for the overall intersection is reported along with the delay for the worst-case movement.

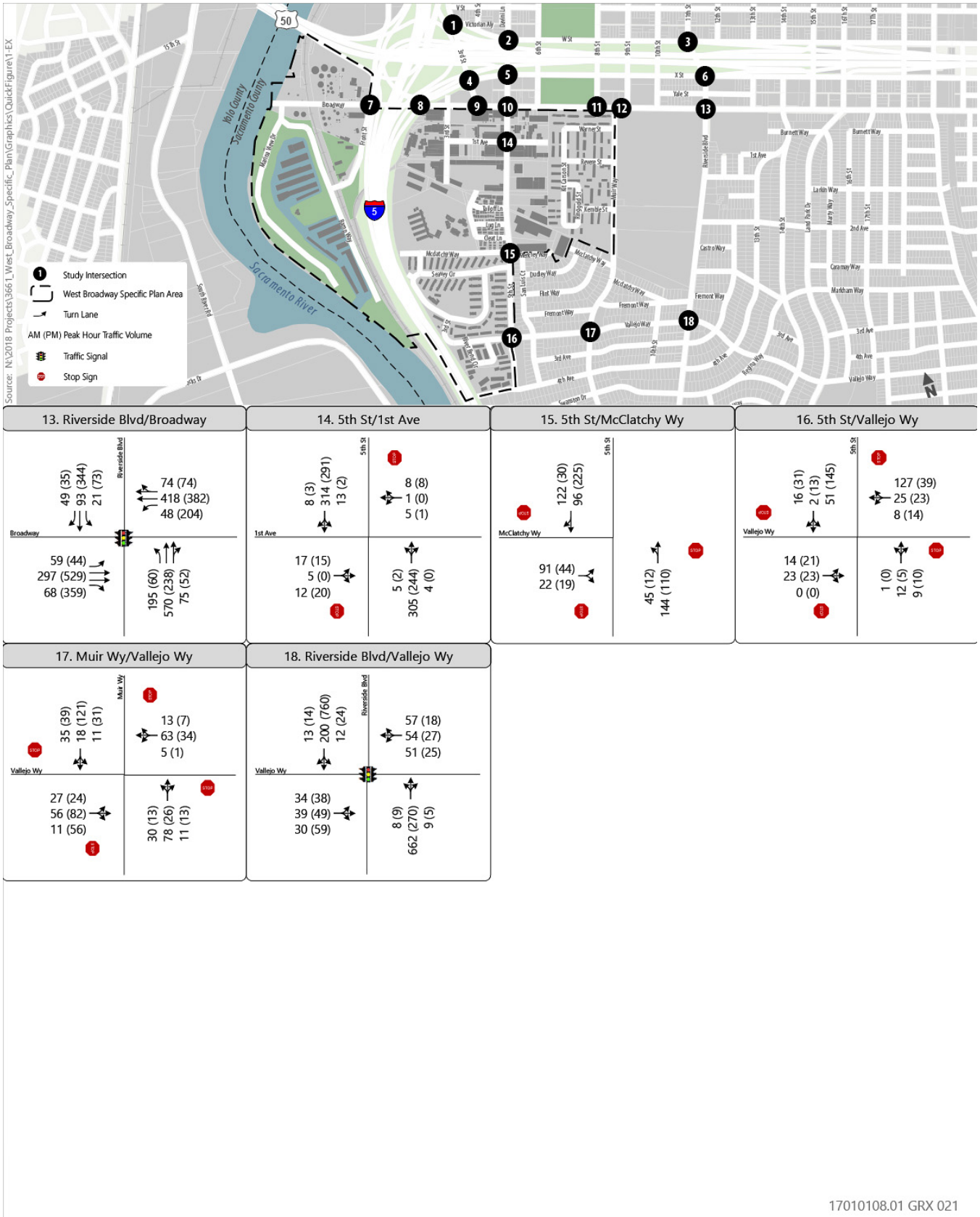
Existing Traffic Volumes

Figures 4.12-4a and 4.12-4b display the existing AM and PM peak hour intersection traffic volumes, traffic controls, and lane configurations.



Source: Image prepared and provided by Fehr & Peers in 2019

Figure 4.12-4a Existing Peak Hour Traffic Volumes and Lane Configurations



Source: Image prepared and provided by Fehr & Peers in 2019

Figure 4.12-4b Existing Peak Hour Traffic Volumes and Lane Configurations

Existing Intersection Operations

Table 4.12-2 displays the existing AM and PM peak hour intersection operations at the study intersections (refer to Appendix G for technical calculations).

Table 4.12-2 Intersection Operations – Existing Conditions

Intersection	Traffic Control	Peak Hour	Existing Conditions	
			Delay[1]	LOS
1. W Street / 3rd Street	SSSC	AM PM	1 (5) 1 (8)	A (A) A (A)
2. W Street / 5th Street	Signal	AM PM	8 19	A B
3. W Street / 11th Street / Riverside Blvd	Signal	AM PM	13 14	B B
4. X Street / 3rd Street	SSSC	AM PM	2 (7) 2 (9)	A (A) A (A)
5. X Street / 5th Street	Signal	AM PM	14 25	B C
6. X Street / Riverside Blvd	Signal	AM PM	13 14	B B
7. Broadway / Front Street	SSSC	AM PM	2 (5) 2 (7)	A (A) A (A)
8. Broadway / I-5 NB Off-Ramp	SSSC	AM PM	4 (6) 3 (6)	A (A) A (A)
9. Broadway / 3rd Street (N)	SSSC	AM PM	2 (9) 9 (25)	A (A) A (D)
10. Broadway / 5th Street	Signal	AM PM	12 15	B B
11. Broadway / 8th Street	SSSC	AM PM	1 (10) 4 (9)	A (A) A (A)
12. Broadway / Muir Way / 9th Street	Signal	AM PM	26 36	C D
13. Broadway / Riverside Blvd	Signal	AM PM	18 18	B B
14. 1st Ave / 5th Street	SSSC	AM PM	1 (7) 1 (5)	A (A) A (A)
15. McClatchy Way / 5th Street	AWSC	AM PM	5 6	A A
16. Vallejo Way / 5th Street	AWSC	AM PM	4 5	A A
17. Vallejo Way / Muir Way	AWSC	AM PM	5 5	A A
18. Vallejo Way / Riverside Blvd	Signal	AM PM	20 22	B C

Notes: LOS = Level of Service. SSSC = Side-Street Stop-Controlled. AWSC = All-Way Stop-Controlled.

1. For signalized and AWSC intersections, average intersection delay is reported in seconds per vehicle for all approaches. For SSSC intersections, the LOS and control delay for the worst movement is shown in parentheses next to the average intersection LOS and delay. Impacts to intersections are determined based on the overall LOS and average delay. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010). All intersections were analyzed using SimTraffic.

Source: Data provided by Fehr & Peers in 2019.

As shown in Table 4.12-2, all intersections operate at LOS D or better during both peak hours, which can be characterized as operating efficiently. The highest delays in the study area occur during the PM peak hour at the Broadway / Muir Way / 9th Street intersection (study intersection 12). This intersection operates at LOS D mostly due to conflicting traffic volume between the southbound left-turning and westbound through movements and the offset nature of this intersection that requires additional clearance time for vehicles.

Existing Off-Ramp Queues

Table 4.12-3 displays the existing off-ramp queuing within the study area during the AM and PM peak hours. As shown, all study freeway off-ramp queues remain within the available storage area during both peak hours.

Table 4.12-3 Off-Ramp Queuing – Existing Conditions

Location	Available Storage[1] (feet)	Peak Hour	Queue[2] (feet)
I-5 southbound (SB) Off-Ramp at X Street / 3rd Street / X Street	1,175	AM PM	75 75
US 50 EB Off-Ramp at X Street / 5th Street	1,300	AM PM	175 300
I-5 NB Off-Ramp at Broadway	1,000	AM PM	75 75

1. Storage length is measured using aerial imagery.

2. Maximum queue is calculated using an average of 10 SimTraffic runs.

Source: Data provided by Fehr & Peers in 2019.

VEHICLE MILES TRAVELED

Table 4.12-4 displays the existing daily vehicle miles traveled (VMT) per service population (total residents and employees) generated by the Specific Plan Area. The most recent version of the SACMET base year travel demand model, developed and maintained by SACOG, was run after refinement to the existing study area traffic analysis zones, existing land use, and roadway network detail. All travel to/from the traffic analysis zones representing the Specific Plan Area under existing conditions was tracked throughout the model and adjusted to account for trips leaving the SACOG boundary using the California Statewide Travel Demand Model. As shown, the WBSP generates 25.2 daily VMT per service population under existing conditions.

Table 4.12-4 Specific Plan Area VMT per Service Population – Existing Conditions

Scenario	Specific Plan Area			Specific Plan Area Generated	
	Residents	Employees	Service Population	Daily VMT	Daily VMT per Service Population
Existing Conditions	2,217	771	2,988	75,220	25.2

Source: Data provided by Fehr & Peers in 2019.

Table 4.12-5 shows the existing daily vehicle miles traveled (VMT) per service population generated by the SACOG region, which was determined following the same travel demand models and methodology as previously discussed. As shown, the SACOG region generates 25.4 daily VMT per service population.

Table 4.12-5 SACOG Region VMT per Service Population – Existing Conditions

Scenario	SACOG Region			SACOG Region Generated	
	Residents	Employees	Service Population	Daily VMT	Daily VMT per Service Population
Existing Conditions	2,045,768	887,816	2,933,584	74,451,572	25.4

Source: Data provided by Fehr & Peers in 2019.

BICYCLE SYSTEM

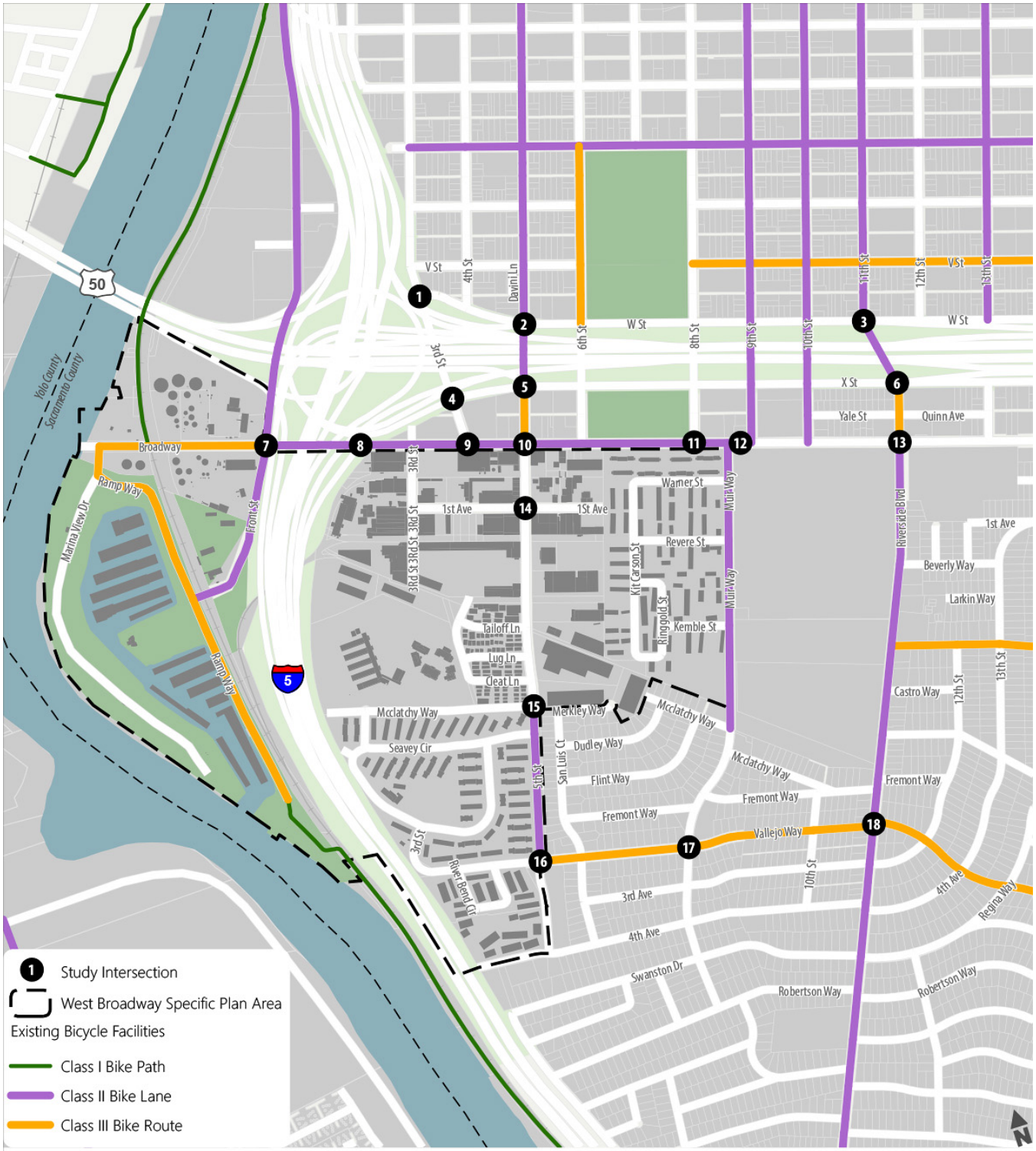
Figure 4.12-5 displays existing bicycle facilities in the study area. The following types of bicycle facilities exist within the study area:

- Class I – commonly referred to as a Bikeway or Bike Path, is a facility separated from automobile traffic for the exclusive use of bicyclists. Class I facilities can be designed to accommodate other modes of transportation, including pedestrians and equestrians, in which case they are referred to as shared-use paths.
- Class II – commonly referred to as Bike Lanes, are dedicated facilities for bicyclists immediately adjacent to automobile traffic. Class II facilities are identified with striping, pavement markings and signage.
- Class III – commonly referred to as Bike Routes, are on-street routes where bicyclists and automobiles share the road. They are identified with pavement markings and signage, and are typically assigned to low-volume and/or low-speed streets.

As shown, the Specific Plan Area is served primarily by bike lanes along Broadway. Some bike lanes exist through the Specific Plan Area along Muir Way and 5th Street; however, there are some gaps in connectivity. Bike lanes along 5th Street, 9th Street, and 10th Street north of the study area; Riverside Boulevard east of the study area, as well as the Sacramento River Bike Trail, provide connections to the surrounding areas beyond the Specific Plan Area.

The study area lies within the JUMP scooter and bike share service area. The service currently operates throughout the Central City Core Area, as well as in neighboring areas including West Sacramento, Land Park, Oak Park, Tahoe Park, and East Sacramento. There are currently 500 shared bicycles located in the City of Sacramento, with an additional 400 bicycles and 100 scooters in the region. The shared bicycle and scooter fleet features electric assist technology up to a speed of 15 mph.

In addition, the Specific Plan Area is centrally located within the GIG Car Share service area which includes Downtown, Midtown, and portions of East Sacramento, Land Park, Curtis Park, Oak Park, and Tahoe Park. GIG Car Share provides free-floating electric car services that allow users to pick up and drop off vehicles anywhere within the service area. The service area does not currently include the marina portion of the Specific Plan Area.



Source: Image prepared and provided by Fehr & Peers in 2019

Figure 4.12-5 Existing Bicycle Facilities

PEDESTRIAN SYSTEM

Figure 4.12-6 shows the existing pedestrian facilities and highlights locations where sidewalks are missing. As shown, sidewalk connectivity within the study area is intermittent. Although some roadways have continuous sidewalks lining both sides of the street, many have discontinuous sidewalks or lack sidewalks on one side. Notable locations where sidewalks are missing include most of 1st Avenue, the east side of 5th Street between McClatchy Way and Vallejo Way, the east side of Muir Way between Warner Street and Kemble Street, the west side of Riverside Boulevard from Broadway to Fremont Way, and Front Street immediately north of Broadway.

TRANSIT SYSTEM

The Specific Plan Area is served by local transit service provided by Sacramento Regional Transit District (RT). SacRT's new bus network, SacRT Forward launched on Sunday, September 8, 2019. Three routes serve the periphery of the Specific Plan Area, as identified in Table 4.12-6. The table also includes information on route frequency and span during the weekdays and weekends. Figure 4.12-7 displays the existing transit routes within the study area.

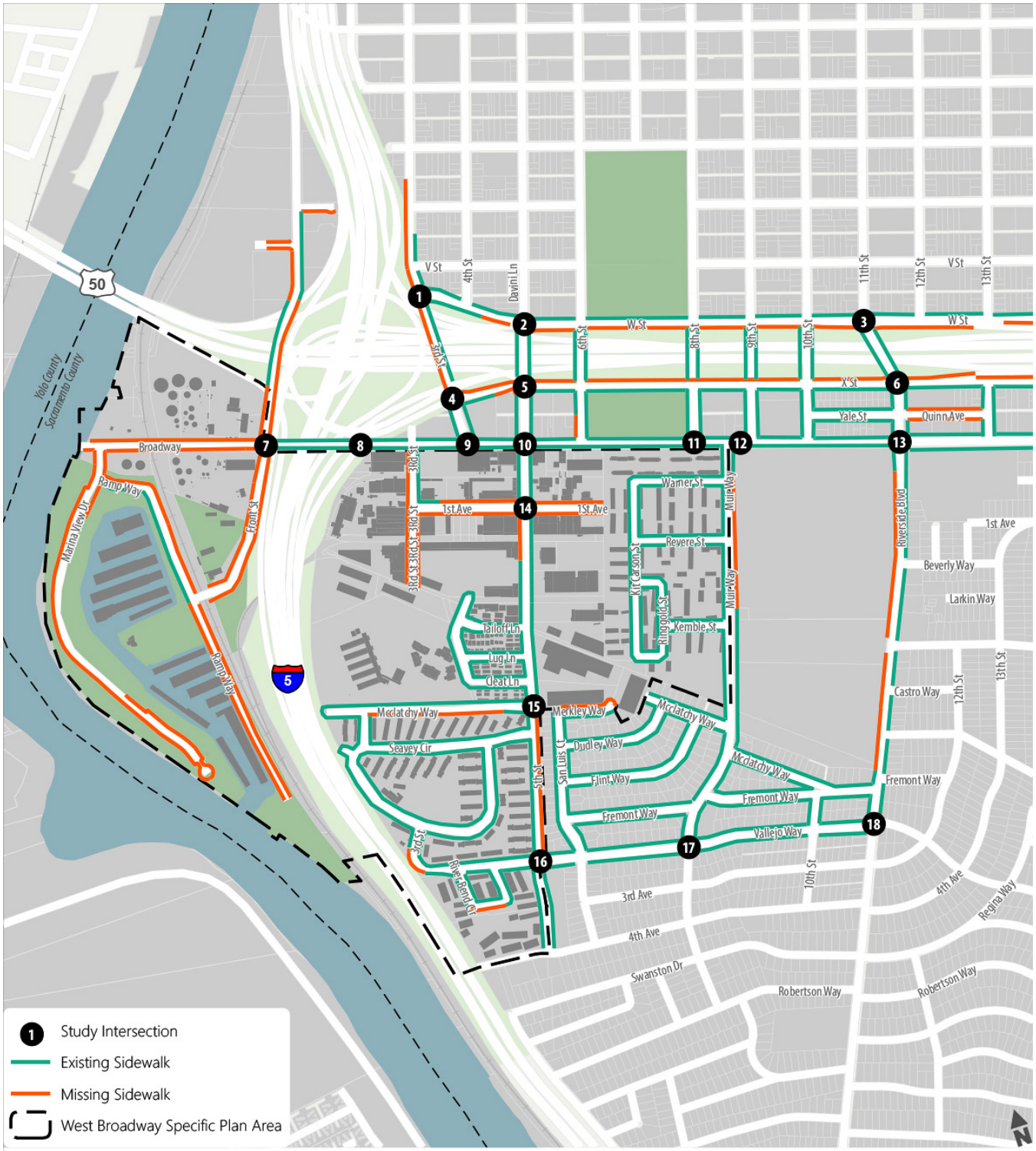
Table 4.12-6 RT Bus Route Schedule Summary

Route	Weekday		Saturday		Sunday	
	Frequency (min)	Span	Frequency (min)	Span	Frequency (min)	Span
11 – Natomas/Land Park	30	6:00 AM – 8:00 PM	45	7:00 AM – 8:30 PM	45	7:00 AM – 8:30 PM
51 – Stockton/Broadway	15 (30 after 7 PM)	5:30 AM – 10:30 PM	30 (6:15 AM – 9 AM) 20 (9 AM – 5 PM) 30 (5 PM – 7 PM) 60 (7 PM – 10:45 PM)	6:15 AM – 10:45 PM	30 (6:15 AM – 11 AM) 20 (11 AM – 5 PM) 30 (5 PM – 7 PM) 60 (7 PM – 9:30 PM)	6:15 AM – 9:30 PM
102 – Riverside Commuter	Pocket to Downtown: • 4 morning buses every 60 min starting 5:30 PM • 1 afternoon bus at 3:30 PM Downtown to Pocket: • 1 morning bus at 7:15 AM • 5 afternoon buses every 60 min starting at 2:30 PM		no service	-	no service	-

Note: Schedule time span noted to the nearest 15 minutes.

Source: Sacramento Regional Transit 2019.

Per the definition provided above of what constitutes a transit priority area (pursuant to PRC Section 21099), the northeast portion of the Specific Plan Area meets the requirements of a transit priority area, however, the majority of the Specific Plan Area does not. This is primarily because of the lack of a major transit stop, which per PRC Section 20164.3, a major transit stop includes either an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. Route 51 provides the necessary frequency of service to meet the definition of a major transit stop, but Routes 11 and 102 do not. However, SACOG mapping, as part of the 2016 MTP/SCS, identified the entire Specific Plan Area as being within a future transit priority area, primarily due to planned improvements in the area, including future transit that would traverse the planned Broadway Bridge connection between the cities of West Sacramento and Sacramento (SACOG 2019).



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Source: Image prepared and provided by Fehr & Peers in 2019

Figure 4.12-6 Existing Pedestrian Facilities

Source: Sacramento Regional Transit, 2019

Figure 4.12-7 Existing Transit Facilities

RAIL CROSSING

One at-grade railroad crossing is located within the Specific Plan Area. North-south running railroad tracks traverse Broadway approximately 300 feet east of its western terminus at the Sacramento River. These tracks accommodate Sacramento Southern Railroad recreational excursion trains, which depart Old Sacramento for a six-mile trip along the banks of the Sacramento River. The train operates seasonally on weekends. According to data obtained from the Federal Railroad Administration, the railroad line serves up to 16 trains a day that operate at a maximum speed of 20 mph. The crossing features crossing arms, flashing lights, warning bells, and stop lines.

4.12.4 Environmental Impacts and Mitigation Measures

This section describes the analysis techniques, assumptions, and results used to identify potential significant impacts of the proposed WBSP on the transportation system. Transportation/traffic impacts are described and assessed, and mitigation measures are recommended for impacts identified as significant or potentially significant.

METHODOLOGY

The transportation and circulation analysis methodology uses the anticipated travel characteristics of the proposed WBSP, as described below.

WBSP Roadway Network

The proposed WBSP would include additional roadway connections in the study area that would provide enhanced connectivity within the Specific Plan Area and to its surroundings. As shown in Figure 4.12-8, the project would create a gridded street network between Tailoff Lane to the south, Broadway to the north, 5th Street to the west, and Muir Way to the east. This grid network would allow further access to Broadway via 6th Street and 7th Street. Figure 4.12-8 also shows an additional gridded network proposed south of McClathy Way and west of 5th Street. Furthermore, McClatchy Way would extend east of 5th Street and tie into the grid network via 7th Street.

The WBSP would also realign Muir Way to tie into 8th Street at Broadway, as well as reconfigure the roadway network in the neighborhood east of the Sacramento River, west of 5th Street, and south of McClatchy Way.

Proposed WBSP traffic controls

Figure 4.12-9 shows existing and recommended traffic controls within the Specific Plan Area. Installation of stop signs shown on Figure 4.12-9 requires investigation and meeting stop sign warrants. The recommended traffic controls were based on a review of WBSP land use, the WBSP roadway network, current traffic controls, cumulative year forecasts, cumulative year travel demand model outputs, and City of Sacramento precedents.

As shown in the figure, the WBSP would realign Muir Way to tie into 8th Street at Broadway. This would eliminate the clustered intersection signal timing that currently exists between the intersections of Muir Way / Broadway and 9th Street / Broadway. With the proposed WBSP, the intersection of Muir Way / 8th Street / Broadway would meet the peak hour signal warrant under both the AM and PM peak hours (see Appendix G for details). Therefore, this intersection would include a new signal, which would function separately from the intersection at 9th Street / Broadway. WBSP traffic controls shown in Figure 4.12-9 also recommends new signals at 8th Street & Broadway and at Front Street and Broadway.

Funding for new recommended WBSP signals should be collected through a Finance Plan. This ensures the signals are constructed when needed and allows for an equitable distribution of costs to all property in the plan area that would benefit from the new signals and not just the first project that triggers the need for a signal.

WBSP Bicycle Network

The proposed WBSP network would also include additional bicycle facilities within the Specific Plan Area boundary, as shown in Figure 4.12-10, which include a Class I shared-use path under I-5 connecting Miller Regional Park and Sacramento River Parkway to the remaining portion of the Specific Plan Area east of I-5. Other bicycle facilities include class II bicycle lanes on 3rd Street, 5th Street, 7th Street, Crate Avenue, and McClatchy Way.

Figure 4.12-8 WBSP Roadway Network

*Note: Installation of stop signs is subject to meeting stop sign warrants.

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Source: Image prepared and provided by Fehr & Peers in 2019

Figure 4.12-9 WBSP Traffic Controls

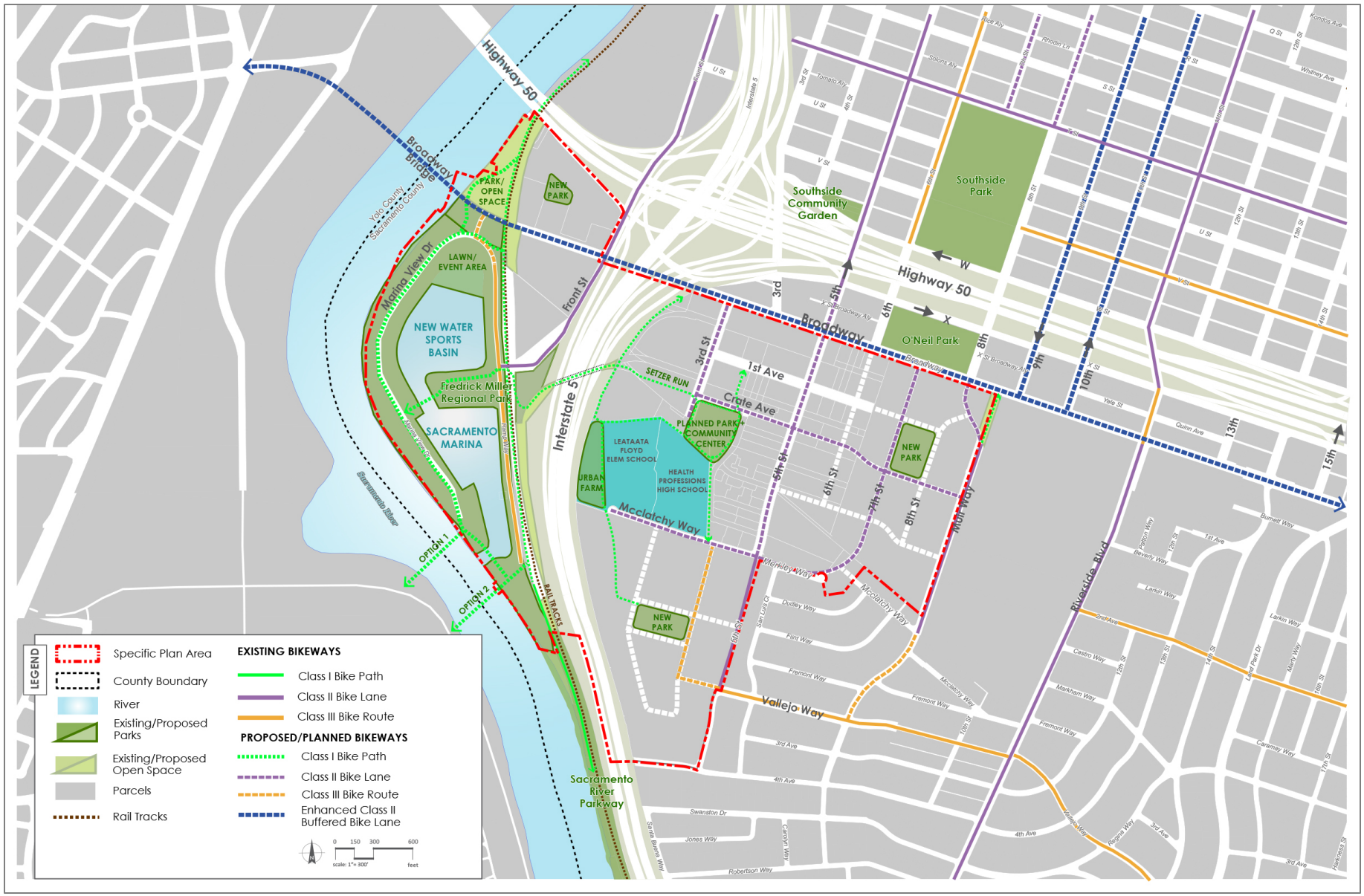


Figure 4.12-10 WBSP Bicycle Facilities

WBSP Land Uses

The Specific Plan Area under existing conditions, includes a mix of the following trip-generating land uses:

- 1,113 residential dwelling units
- 439,995 square feet of commercial/industrial building area
- 120,300 square feet of public/park/recreation building area

The proposed WBSP would consist of the following trip-generating land uses:

- 4,900 residential dwelling units
- 429,220 square feet of commercial/industrial building area
- 162,800 square feet of public/park/recreational building area

WBSP Travel Forecasts

Trips generated by the Specific Plan Area and traffic forecasts for Existing Plus WBSP conditions were developed using the base year version of the SACMET regional travel demand model. The base year model was modified to include additional roadway network refinement and traffic analysis zone detail in the study area. The net increase in land use between Existing conditions and the proposed WBSP, and the roadway network changes associated with the WBSP, were added to the base year version of the travel model to create an "Existing Plus WBSP" model scenario. A forecasting procedure known as the 'difference method' was used. This method accounts for potential differences between the base year model and existing traffic counts that could otherwise transfer to the "Existing Plus WBSP" model and traffic forecasts. This forecasting procedure is calculated as follows:

Existing Plus WBSP Traffic Forecast = Existing Count Volume + ("Existing Plus WBSP" Model Volume – Base Year Model Volume)

The net increase in Specific Plan Area generated vehicle trips between Existing conditions and the proposed WBSP, including the external vehicle trips leaving or entering the Specific Plan Area, are shown in the Table 4.12-7.

Table 4.12-7 Specific Plan Area Generated Vehicle Trips

Scenario	Trip Type	Daily	AM Peak Hour			PM Peak Hour		
		Total	In	Out	Total	In	Out	Total
Existing Conditions	Total	11,147	493	517	1,010	541	502	1,043
	Internal	362	23	23	46	18	18	36
	External	**10,785**	**470**	**494**	**964**	**523**	**484**	**1,007**
Existing Plus WBSP	Total	44,672	1,686	2,066	3,752	2,297	2,000	4,297
	Internal	4,832	229	229	458	252	252	504
	External	**39,840**	**1,457**	**1,837**	**3,294**	**2,045**	**1,748**	**3,793**
Net Change	Total	+33,525	+1,193	+1,549	+2,742	+1,756	+1,498	+3,254
	Internal	+4,470	+206	+206	+412	+234	+234	+468
	External	**+29,055**	**+987**	**+1,343**	**+2,330**	**+1,522**	**+1,264**	**+2,786**

Source: Data provided by Fehr & Peers in 2019.

THRESHOLDS OF SIGNIFICANCE

The following describes the significance criteria used to identify project-specific and cumulatively considerable impacts to the transportation and circulation system.

Vehicle Miles Traveled

Transportation impacts to VMT are considered significant if:

- The project is not within a Transit Priority Area and VMT per service population (residents and employment) for the project exceeds 85 percent of the existing average for the SACOG region.

This threshold was developed as part of the Office of Planning and Research's (OPR) Technical Advisory and recommended by OPR as a reasonable threshold that will help the State achieve its climate goals (refer to Section 4.7, "Greenhouse Gas Emissions and Climate Change" for further clarification").

Intersections

Impacts to the roadway system would be significant if:

- traffic generated by the project degrades the overall roadway system operation to the extent that the project would not be consistent with 2035 General Plan Policy M 1.2.2 relating to the City's allowable Level of Service; or
- traffic generated by the project substantially degrades operation of intersections and roadway segments, despite compliance with 2035 General Plan policies.

2035 General Plan Mobility Element Policy M 1.2.2 sets forth definitions for what is considered an acceptable LOS. Intersections 1 through 13 are in the Core Area and are governed by Policy M 1.2.2 (A), under which LOS F is acceptable during peak hours, provided the project contribute other acceptable improvements to transportation-system-wide roadway capacity, intersections, or non-auto travel modes in furtherance of 2035 General Plan goals. Road widening or other improvements to road segments are not required. Study intersections 14 through 18 are outside the Core Area and would be governed by the City's LOS D policy. It should be noted that project impacts will be evaluated based on overall intersection level of service, and not on any individual movements.

Freeway Facilities

Impacts to the freeway system would be significant if:

- project traffic causes off-ramp traffic to queue back to beyond the freeway gore point, or worsens an existing/projected queuing problem on a freeway off-ramp.

Bicycle Facilities

Impacts to bicycle facilities are considered significant if the project would:

- adversely affect existing or planned bicycle facilities, or
- fail to adequately provide for access by bicycle.

Pedestrian Circulation

Impacts to pedestrian circulation are considered significant if the project would:

- adversely affect existing or planned pedestrian facilities, or
- fail to adequately provide access for pedestrians.

Transit

Impacts to the transit system would be significant if the project would:

- adversely affect public transit operations, or
- fail to adequately provide access to transit.

Construction-Related Traffic Impacts

Construction-related traffic impacts would be significant if they would:

- degrade an intersection or roadway to an unacceptable level;
- cause substantial inconvenience to motorists because of prolonged road closures; or
- result in substantially increased potential for conflicts between vehicles, pedestrians, and bicyclists.

The first significance criterion bullet listed above under "Intersections" is the City's interpretation of how 2035 General Plan Policy M 1.2.2 should be applied in the Core Area and Priority Investment Areas of the City. This policy allows these areas to have intersections that operate at LOS F. However, such conditions should not be detrimental toward other 2035 General Plan circulation policies (including but not limited to policies M 1.2.1, 1.2.4, 1.3.3, and 1.3.5), which pertain to providing high-quality transit, walkable neighborhoods and business districts, continuous and connected bikeways, transportation demand management, emergency response, and other circulation considerations. So, while a single intersection operating at LOS F during the peak hour may be considered acceptable, an entire roadway system that experiences severe gridlock, and hampers all modes of travel is generally not considered acceptable. To this end, the evaluation of this significance criterion focuses on the totality of system operations to assess consistency with 2035 General Plan Policy M 1.2.2.

In developing Policy M 1.2.2, the City evaluated the benefits of allowing lower levels of service to promote infill development within an urbanized high density area of the city that reduces VMT and supports more transportation alternatives, including biking, walking, and transit, as compared to requiring a higher level of service that would accommodate more cars but may also require widening roads and would result in increased vehicle miles traveled and greenhouse gas emissions. Based on this evaluation, the City determined that LOS F is considered acceptable during peak hours within the Core Area, as long as the project provides acceptable improvements to other parts of the citywide transportation system, as described above.

The City's LOS policy was adopted to allow decreased levels of service (i.e., LOS F) in the urbanized Core Area of the City that supports more transportation alternatives and places residents proximate to employment, entertainment, retail, and neighborhood centers and thus reduces overall vehicle miles traveled and results in environmental benefits (e.g., improved air quality and reduced GHG emissions).

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

This section presents the results of the impact analysis, identifies significant impacts, and recommends mitigation measures, where necessary. The focus of this section is on presenting the effects of the project on existing conditions (i.e., Existing Plus WBSP conditions) and addressing these effects. Subsequent sections focus on presenting the transportation effects of the project in the context of cumulative conditions and addressing those effects.

Impact 4.12-1: Impacts to Vehicle Miles Traveled

The WBSP would result in reduced VMT per service population relative to Existing Conditions, but would exceed 85 percent of the existing VMT per service population average for the SACOG region under Existing Plus Project conditions. The WBSP is located within a Transit Priority Area under year 2036 conditions, as identified by SACOG in the 2016 MTP/SCS, which provides exemption for significant impact to vehicle miles traveled. However, the City of Sacramento does not provide transit service, and cannot guarantee the timing of additional transit service within the study area. Therefore, this would be a **significant** impact.

This section provides estimates of the daily VMT that would be generated by the Specific Plan Area and the evaluation of the project's effect on VMT regionally.

Table 4.12-8 displays the daily VMT per service population (total residents and employees) generated by the Specific Plan Area under Existing Plus WBSP conditions. The SACMET base and future year travel demand models were run with the WBSP, and all travel to/from the traffic analysis zones representing the Specific Plan Area was tracked throughout the model and adjusted to account for trips leaving the SACOG boundary using the California Statewide Travel Demand Model.

Table 4.12-8 Specific Plan Area VMT per Service Population – Existing Plus WBSP Conditions

Scenario	Specific Plan Area			Specific Plan Area Generated	
	Residents	Employees	Service Population	Daily VMT	Daily VMT per Service Population
Existing Plus WBSP	10,096	975	11,071	277,328	25.1

Source: Data provided by Fehr & Peers in 2019.

As shown, the addition of the WBSP to Existing conditions slightly improves the daily VMT per service population generated by the Specific Plan Area. The model estimates that implementation of the specific plan would result in the Specific Plan Area generating 25.1 daily VMT per service population. The plan would locate additional residential land use proximate to the employment nearby, notably in the Central City of Sacramento, which would contribute to lower automobile use and reduction in daily VMT per service population.

Table 4.12-9 displays the daily VMT per service population generated by SACOG region.

Table 4.12-9 SACOG Region VMT per Service Population – Existing Plus WBSP Conditions

Scenario	SACOG Region			SACOG Region Generated	
	Residents	Employees	Service Population	Daily VMT	Daily VMT per Service Population
Existing Plus WBSP	2,053,647	888,020	2,941,667	74,559,189	25.3

Source: Data provided by Fehr & Peers in 2019.

The existing VMT per service population for the region is 25.4. The Specific Plan Area VMT per service population under Existing Plus WBSP conditions would be below the existing regional average (99 percent of the existing regional average); however, this would exceed the 85 percent of the existing regional average significance threshold.

The Specific Plan Area is also located within a Transit Priority Area under year 2036 conditions, as identified by SACOG in the 2016 Metropolitan Transportation Plan / Sustainable Communities Strategy (MTP/SCS). Transit Priority Areas are defined as areas within one-half mile of a rail station stop or a high-quality transit corridor (fixed route bus service with service intervals of 15 minutes or less during

peak commute hours). As discussed previously, RT Route 51 provides 15-minute headways under existing conditions and has a stop located immediately northeast of the Specific Plan Area. Therefore, portions of the WBSP are located within a Transit Priority Area under existing conditions, but portions to the south and west are currently greater than one-half mile from a high-quality transit corridor. Under cumulative conditions, the planned Broadway Bridge connecting West Sacramento and Sacramento provides additional connections and opportunities for transit through the Specific Plan Area. The MTP/SCS identifies a high-quality transit route along Broadway and across the Broadway Bridge in place under cumulative conditions.

Based on the above analysis, VMT per service population for the WBSP exceeds 85 percent of the existing average for the SACOG region under Existing Plus Project conditions and is not currently located within a Transit Priority Area; therefore, this would be a **significant** impact.

Mitigation Measures

Mitigation Measure 4.12-1: High-Quality Transit Service
As new development is proposed and/or the City makes streetscape improvements within the WBSP, the City of Sacramento shall coordinate with Regional Transit, the local transit provider, to identify and support the provision of additional transit service and/or facility improvements within the Specific Plan Area with a goal of bus service within one-half mile of every residence at a frequency of not less than 15 minutes during the weekday AM and PM peak hours. Potential transit improvements may include modifying existing transit routes or adding new routes to serve areas, including the WBSP, underserved by transit.

Significance after Mitigation
The City of Sacramento does not provide transit service and cannot guarantee that the timing of additional transit service within the study area will correspond with planned development. Therefore, this impact would remain **significant and unavoidable**.

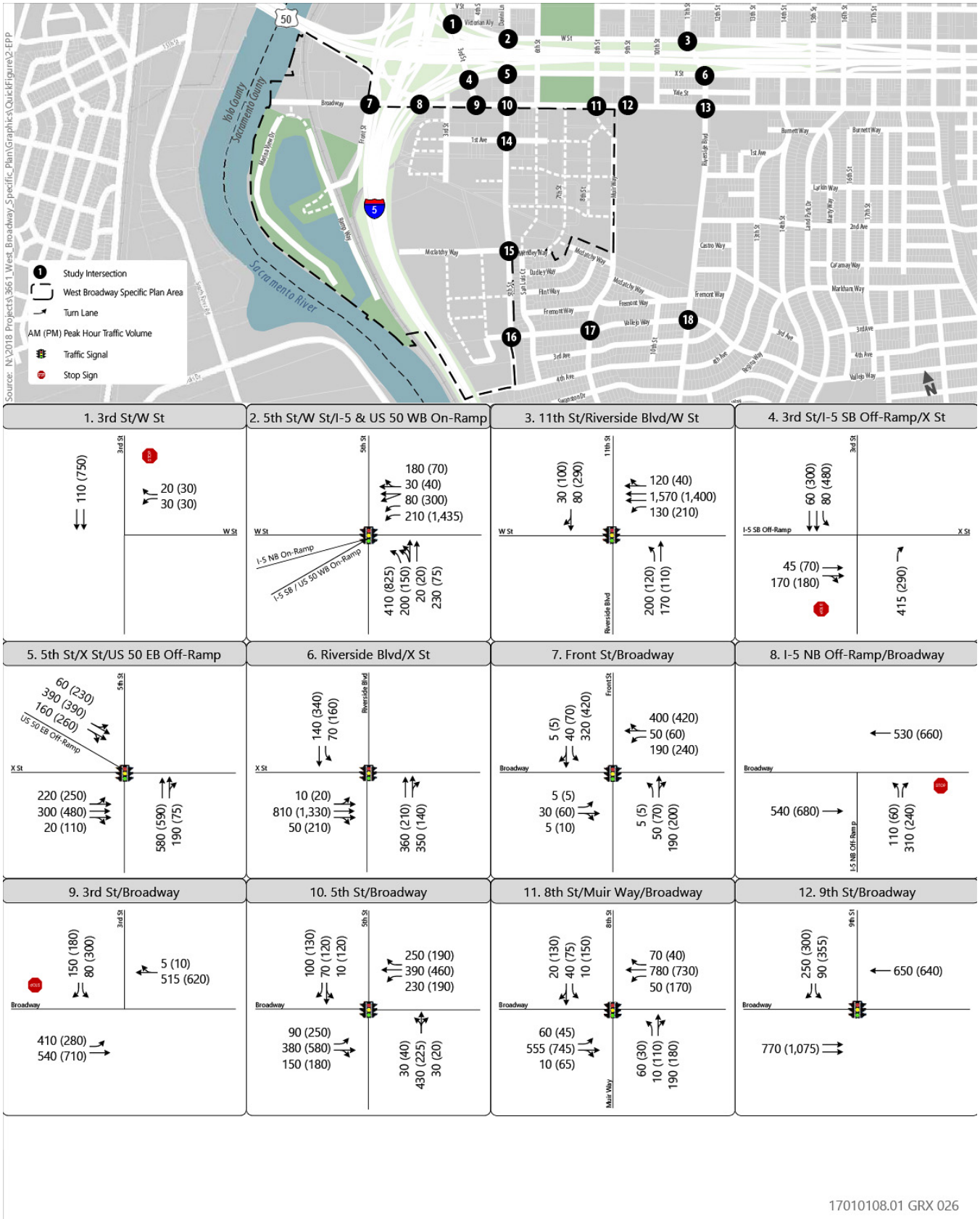
Scenario B Option

If selected, implementation of the Scenario B option would retain the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. As the option represents less change compared to existing conditions (i.e., less variation in terms of recreational opportunities) and lesser development within the Specific Plan Area, less VMT are anticipated to occur under this option. However, potential development within the remaining portions of the Specific Plan Area would be similar to the proposed WBSP, and impacts would remain **less than significant** with implementation of Mitigation Measure 4.12-1.

Impact 4.12-2: Impacts to Intersection Operations

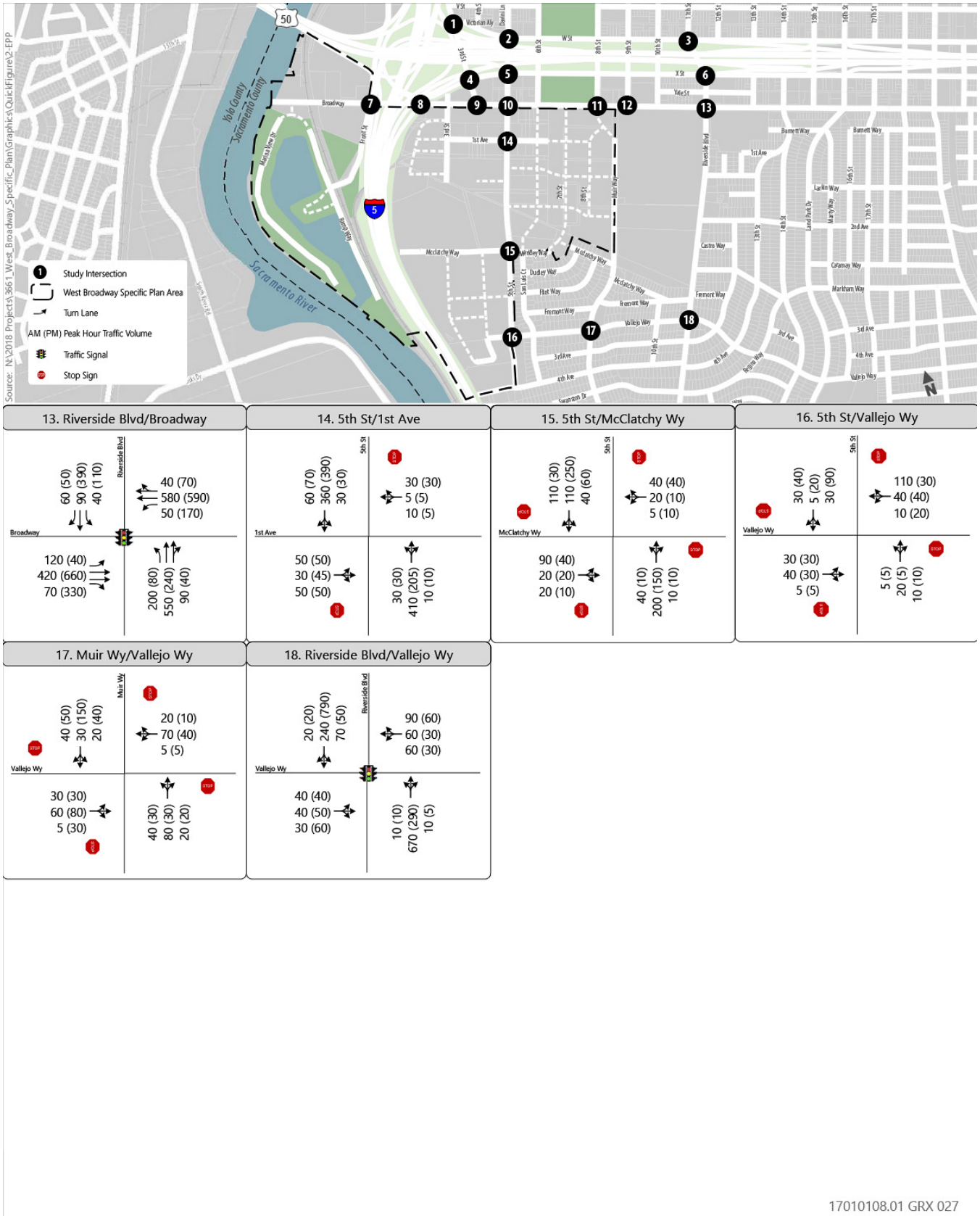
Under Existing Plus WBSP conditions, all study intersections would operate acceptably during the AM and PM peak hours. Because the project would not cause any intersection operations to degrade to unacceptable levels, this would be a **less-than-significant** impact.

Figures 4.12-11a and 4.12-11b display the Existing Plus WBSP intersection traffic volumes under the AM and PM peak hours, traffic controls, and lane configurations.



Source: Image prepared and provided by Fehr & Peers in 2019

Figure 4.12-11a Existing Plus WBSP Peak Hour Traffic Volumes and Lane Configurations



Source: Image prepared and provided by Fehr & Peers in 2019

Figure 4.12-11b Existing Plus WBSP Peak Hour Traffic Volumes and Lane Configurations

Table 4.12-10 displays the Existing Plus WBSP AM and PM peak hour intersection operations at the study intersections (refer to Appendix G for technical calculations). As shown, the project's effect on vehicle operations varies by location and peak hour. All study intersections would operate at LOS D or better during the AM peak hour. The highest delays in the study area would occur during the PM peak hour at the Broadway / Front Street and Broadway / 8th Street intersections (study intersections 7 and 11), which are within the City's Core Area. These two intersections would operate at LOS E during the PM peak hour.

Table 4.12-10 Intersection Operations – Existing Plus WBSP Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Existing Conditions		Existing Plus WBSP	
				Delay[1]	LOS	Delay[1]	LOS
1. W Street / 3rd Street	SSSC	F	AM PM	1 (5) 1 (8)	A (A) A (A)	1 (5) 2 (9)	A (A) A (A)
2. W Street / 5th Street	Signal	F	AM PM	8 19	A B	16 20	B C
3. W Street / 11th Street / Riverside Blvd	Signal	F	AM PM	13 14	B B	11 15	B B
4. X Street / 3rd Street	SSSC	F	AM PM	2 (7) 2 (9)	A (A) A (A)	2 (8) 50 (202)	A (A) F (F)
5. X Street / 5th Street	Signal	F	AM PM	14 25	B C	23 51	C D
6. X Street / Riverside Blvd	Signal	F	AM PM	13 14	B B	15 15	B B
7. Broadway / Front Street	SSSC / Signal[2]	F	AM PM	2 (5) 2 (7)	A (A) A (A)	29 73	C E
8. Broadway / I-5 NB Off-Ramp	SSSC	F	AM PM	4 (6) 3 (6)	A (A) A (A)	6 (26) 7 (25)	A (D) A (D)
9. Broadway / 3rd Street (N)	SSSC	F	AM PM	2 (9) 9 (25)	A (A) A (D)	7 (45) 54 (290)	A (E) F (F)
10. Broadway / 5th Street	Signal	F	AM PM	12 15	B B	32 36	C D
11. Broadway / 8th Street	SSSC / Signal[2]	F	AM PM	1 (10) 4 (9)	A (A) A (A)	29 63	C E
12. Broadway / Muir Way / 9th Street	Signal	F	AM PM	26 36	C D	38 44	D D
13. Broadway / Riverside Blvd	Signal	F	AM PM	18 18	B B	30 30	C C
14. 1st Ave / 5th Street	SSSC	D	AM PM	1 (7) 1 (5)	A (A) A (A)	13 (49) 7 (19)	C (E) A (C)
15. McClatchy Way / 5th Street	AWSC	D	AM PM	5 6	A A	7 8	A A
16. Vallejo Way / 5th Street	AWSC	D	AM PM	4 5	A A	4 5	A A
17. Vallejo Way / Muir Way	AWSC	D	AM PM	5 5	A A	6 6	A A
18. Vallejo Way / Riverside Blvd	Signal	D	AM PM	20 22	B C	40 31	D C

Notes: LOS = Level of Service. SSSC = Side-Street Stop-Controlled. AWSC = All-Way Stop-Controlled.

1. For signalized and AWSC intersections, average intersection delay is reported in seconds per vehicle for all approaches. For SSSC intersections, the LOS and control delay for the worst movement is shown in parentheses next to the average intersection LOS and delay. Impacts to intersections are determined based on the overall LOS and average delay. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010). All intersections were analyzed using SimTraffic.

2. Intersection has SSSC under existing conditions and would be signalized with implementation of the WBSP.

Source: Data provided by Fehr & Peers in 2019.

In addition, two side-street stop-controlled intersections would operate at overall LOS F during the PM peak hour; this would occur at X Street / 3rd Street and Broadway / 3rd Street.

As discussed previously, 2035 General Plan Policy M 1.2.2 was adopted to allow decreased levels of service (e.g., LOS F) in the urbanized Core Area of the City that supports more transportation alternatives and places residents proximate to employment, entertainment, retail and neighborhood centers and thus reduces overall vehicle miles traveled and results in environmental benefits (e.g., improved air quality and reduced GHG emissions). As the WBSP would represent a densification and provision of residents proximate to downtown Sacramento (i.e., an employment, entertainment, and retail hub), it is consistent with this policy. Based on the citywide evaluation conducted as part of the policy's development/consideration, the City determined that LOS F is considered acceptable during peak hours within the Core Area (including the Specific Plan Area), and therefore, the impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. However, although implementation of the Scenario B option would represent less overall change compared to existing conditions (i.e., less variation in terms of recreational opportunities), the change in the level of recreational opportunities are not anticipated to contribute to peak hour traffic volumes at intersections in the vicinity of and within the Specific Plan Area. As a result, impacts are anticipated to be the same as the proposed WBSP and **less than significant**.

Impact 4.12-3: Impacts to Freeway Off-Ramp Queuing

Implementation of the WBSP would result in increases in queue lengths at study area freeway off-ramps. The project would not cause queueing at off-ramps that approach or extend beyond storage capacity. Therefore, this would be a **less-than-significant** impact.

Table 4.12-11 displays the Existing Plus WBSP off-ramp queuing within the study area during the AM and PM peak hours. As shown, freeway off-ramp queuing would increase minimally during the AM peak hour and modestly during the PM peak hour. The US 50 EB off-ramp queue at X Street / 5th Street would increase the most, increasing from about 300 feet under existing conditions to 550 feet with the project. However, all study freeway off-ramp queues would remain within their available storage area during both peak hours. The project's impact to freeway off-ramp queuing would be a **less-than-significant** impact.

Table 4.12-11 Off-Ramp Queuing – Existing Plus WBSP Conditions

Location	Available Storage[1] (feet)	Peak Hour	Queue[2] (feet)	
			Existing Conditions	Existing Plus WBSP
I-5 SB Off-Ramp at X Street / 3rd Street / X Street	1,175	AM PM	75 75	75 275
US 50 EB Off-Ramp at X Street / 5th Street	1,300	AM PM	175 300	200 550
I-5 NB Off-Ramp at Broadway	1,000	AM PM	75 75	150 175

1. Storage length is measured using aerial imagery.

2. Maximum queue is calculated using an average of 10 SimTraffic runs.

Source: Data provided by Fehr & Peers in 2019.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. However, although implementation of the Scenario B option would represent less overall change compared to existing conditions (i.e., less variation in terms of recreational opportunities), the change in the level of recreational opportunities are not anticipated to contribute to peak hour traffic volumes at nearby freeway ramps. As a result, impacts are anticipated to be the same as the proposed WBSP and **less than significant**.

Impact 4.12-4: Impacts to Bicycle Facilities

Implementation of the WBSP would not adversely affect existing bicycle facilities or conflict with planned bicycle facilities. The project would also include additional facilities that would also provide adequate access by bicycle. This would be a **less-than-significant** impact.

The project would not change any existing bicycle facilities, except modification of Muir Way with the realignment to 8th Street at Broadway. This modification of bicycle facilities on Muir Way would be accompanied with class II bike lanes along the new alignment. Additional bicycle facilities would be included with the addition of WBSP, as shown previously in Figure 4.12-10, would provide adequate access by bicycle to the Specific Plan Area. These new bicycle facilities would not conflict with facilities identified in the City's *Bicycle Master Plan* and would build upon the network identified for the Specific Plan Area in the plan. Therefore, this would be a **less-than-significant** impact.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. Additional bicycle lanes would be provided within the Specific Plan Area, similar to the proposed WBSP, and adequate access by bicycle would be provided to and through the Specific Plan Area. As a result, no conflicts with the City's *Bicycle Master* Plan are anticipated, and impacts would be **less than significant**, similar to the proposed WBSP.

Impact 4.12-5: Impacts to Pedestrian Facilities

Implementation of the WBSP would not adversely affect existing pedestrian or conflict with planned pedestrian facilities. The project would also include additional facilities that would also provide adequate access for pedestrians. This would be a **less-than-significant** impact.

The proposed WBSP does not include any components that will adversely affect existing pedestrian facilities or conflict with any planned pedestrian facilities. The proposed plan includes multiple new pedestrian connections, including filling gaps in existing sidewalks, construction of a gridded street network with new sidewalks that will improve access for pedestrians, and would construct multiple off-street pathways dedicated for pedestrian and bicycle use. The WBSP would also enhance the pedestrian environment with streetscape treatments such as pedestrian-scale lighting, landscaping, street furniture, etc. Additionally, new traffic controls and crosswalks would improve pedestrian crossings, such that

pedestrian circulation would be anticipated to improve with implementation of the WBSP. Therefore, the impact would be **less-than-significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. Additional pedestrian facilities, as well as the improvement of pedestrian access to and through the Specific Plan Area, would be provided as part of the WBSP. As a result, pedestrian circulation and the general condition of pedestrian facilities in the Specific Plan Area would be anticipated to improve, and impacts would be **less than significant**, similar to the proposed WBSP.

Impact 4.12-6: Impacts to Transit

Implementation of the WBSP would support enhancements to existing bus stops and provide a gridded street network that would provide additional connections and the ability for local residents to access existing transit facilities. Further, the WBSP would not result in the installation of physical barriers or other facilities that could limit the ability for individuals within or adjacent to the Specific Plan Area to reach the existing transit opportunities. Thus, because the WBSP would not preclude or otherwise adversely affect access to transit service, this impact would be **less than significant.**

The WBSP would support enhancements to existing bus stops, which could include improved lighting, shelter or shade, benches or seating, which may encourage increased transit usage by residents. In addition, the WBSP would also include the addition of roadway segments that would create a more gridded street network within the Specific Plan Area, which would afford greater access to transit facilities by residents/visitors in the area. The WBSP implements several General Plan Goals and Polices related to removing barriers, eliminating gaps, and implementing a grid network to promote efficient travel for all modes to improve access to transit (Policy M1.3.3). There would be no adverse changes, such as the installation of physical barriers or land uses that could negatively affect the ability for individuals to reach/access the existing transit stops. Thus, because the WBSP would not preclude or otherwise adversely affect access to transit service, this impact would be **less than significant.**

Mitigation Measures

No mitigation is required for this impact.

Impact 4.12-7: Construction-Related Impacts

Construction of the WBSP would involve large amounts of grading, earthwork, and construction activities over an extended period of time. Large numbers of trucks and employee trips would enter and exit the Specific Plan Area during construction. These activities could cause lane closures, damage to roadways, and increased conflicts with bicyclists, pedestrians, and transit. However, because of the extent and duration of construction, and the associated potential for prolonged lane closures, damage to roadbeds, and traffic hazards to bikes/pedestrians, WBSP impacts during construction would be **significant**.

Construction of the WBSP would involve large amounts of grading, earthwork, and construction activities over an extended period of time. Large numbers of trucks and employee trips would enter and exit the Specific Plan Area during construction. These activities could cause lane closures, damage to roadways, and increased conflicts with bicyclists, pedestrians, and transit. The duration of construction, number of

trucks, truck routing, number of employees, employee parking, truck idling, lane closures, and a variety of other construction-related activities are unknown at this time. Therefore, it would be speculative to conduct any type of quantitative analysis. However, because of the extent and duration of construction, and the associated potential for prolonged lane closures, damage to roadbeds, and traffic hazards to bikes/pedestrians, WBSP impacts during construction would be **potentially significant**.

Mitigation Measures

Mitigation Measure 4.12-7: Prepare Construction Traffic Management Plan

Before issuance of any demolition or building permits for any phase of the project, the project applicant shall prepare a detailed Construction Traffic Management Plan that will be subject to review and approval by the City Department of Public Works, in consultation with affected transit providers, and local emergency service providers including the City of Sacramento Fire and Police departments. The plan shall ensure that acceptable operating conditions on local roadways are maintained. At a minimum, the plan shall include:

- The number of truck trips, time, and day of street closures
- Time of day of arrival and departure of trucks
- Limitations on the size and type of trucks, provision of a staging area with a limitation on the number of trucks that can be waiting
- Provision of a truck circulation pattern
- Identification of detour routes and signing plan for street closures
- Provision of driveway access plan so that safe vehicular, pedestrian, and bicycle movements are maintained (e.g., steel plates, minimum distances of open trenches, and private vehicle pick up and drop off areas)
- Maintain safe and efficient access routes for emergency vehicles and transit
- Manual traffic control when necessary
- Proper advance warning and posted signage concerning street/lane closures
- Provisions for pedestrian and bicycle safety

A copy of the approved construction traffic management plan shall be submitted to local emergency response agencies and transit providers, and these agencies shall be notified at least 30 days before the commencement of construction that would partially or fully obstruct roadways.

The project applicant, in coordination with the City of Sacramento, Regional Transit, and other transit providers within the project vicinity and subject to their approval, shall identify temporary bus stop locations and cause ADA-compliant replacement bus stop facilities to be constructed in place of any bus stops that need to be temporarily closed during project construction. The relocation of bus stops may have a secondary impact related to the loss/relocation of a small number of on-street parking spaces and/or loading zones. This secondary impact would not be significant.

Significance after Mitigation

The mitigation measures described above would reduce construction-related traffic impacts to a **less-than-significant** level.

Scenario B Option

If selected, implementation of the Scenario B option would retain the existing Marina and result in lesser development of additional recreational opportunities within Miller Regional Park. Construction activities within the Specific Plan Area under this option could require the temporary closure of existing roadways/lanes, as well as large numbers of trucks and employee trips would enter and exiting the area. Therefore, because of the extent and duration of construction that may occur within the Specific Plan Area and the associated potential for prolonged lane closures, damage to roadbeds, and traffic hazards to bikes/pedestrians, potential transportation-related impacts during construction would require implementation of Mitigation Measure 4.12-7 to ensure that impacts would be reduced to **less-than-significant levels**, similar to the proposed WBSP.

CUMULATIVE IMPACTS

This section reports the transportation effects of the project in the context of cumulative conditions. It presents roadway and network assumptions, cumulative conditions analysis results, significant impacts, and recommended mitigation measures, where necessary. Cumulative impacts refer to the combined effect of project impacts with the impacts of other past, present, and reasonably foreseeable future projects. This cumulative impact analysis does not rely on a list of specific pending, reasonably foreseeable development proposals in the vicinity of the project; rather, it relies on existing and future development accommodated under the City's 2035 General Plan, which is included in the SACMET regional travel demand model.

CUMULATIVE LAND USE AND TRANSPORTATION SYSTEM ASSUMPTIONS

The most recent version of the SACMET regional travel demand model, developed and maintained by SACOG, was used to forecast cumulative (year 2036) traffic volumes within the study area. The cumulative version of this model accounts for planned land use growth within the City of Sacramento according to the City's 2035 General Plan, as well as within the surrounding region. The SACMET model also accounts for planned improvements to the surrounding transportation system, including improvements identified in the City's "Grid 3.0" plan for the Central City, and incorporates the current MTP/SCS for the Sacramento region. The version of the model used to develop the forecasts was modified to include the most recent planned land uses and transportation projects within the City of Sacramento. Modifications to the model included additional transportation network and land use detail within the study area to improve accuracy.

The cumulative analysis for this study assumes a variety of reasonably foreseeable future roadway improvements near or within the study area including:

- MTP/SCS Projects
  - New Sacramento River crossing at Broadway connecting Sacramento and West Sacramento
  - Increase in bus service with 15 minute or better headways from roughly one quarter of all services in base year to about half of all services by 2036. The number of buses entering Downtown Sacramento during peak periods is projected to increase by 75 percent by 2036.
- Central City Specific Plan/Grid 3.0 Projects
  - Conversion of 3rd Street and 5th Street between W Street and X Street to two-way with one contra-flow lane

- Conversion of 5th Street to two-way between W Street and N Street
- Reduction of Broadway from 4 lanes to 3 lanes east of 9th Street
- Various multi-modal transportation improvements

- Downtown Riverfront Streetcar service between Downtown Sacramento and West Sacramento

The new Sacramento River crossing at Broadway would result in lane configuration and control type changes at intersections within the study area. This would include new traffic signals at Broadway / Front Street and Broadway / I-5 northbound off-ramp (intersections 7 and 8).

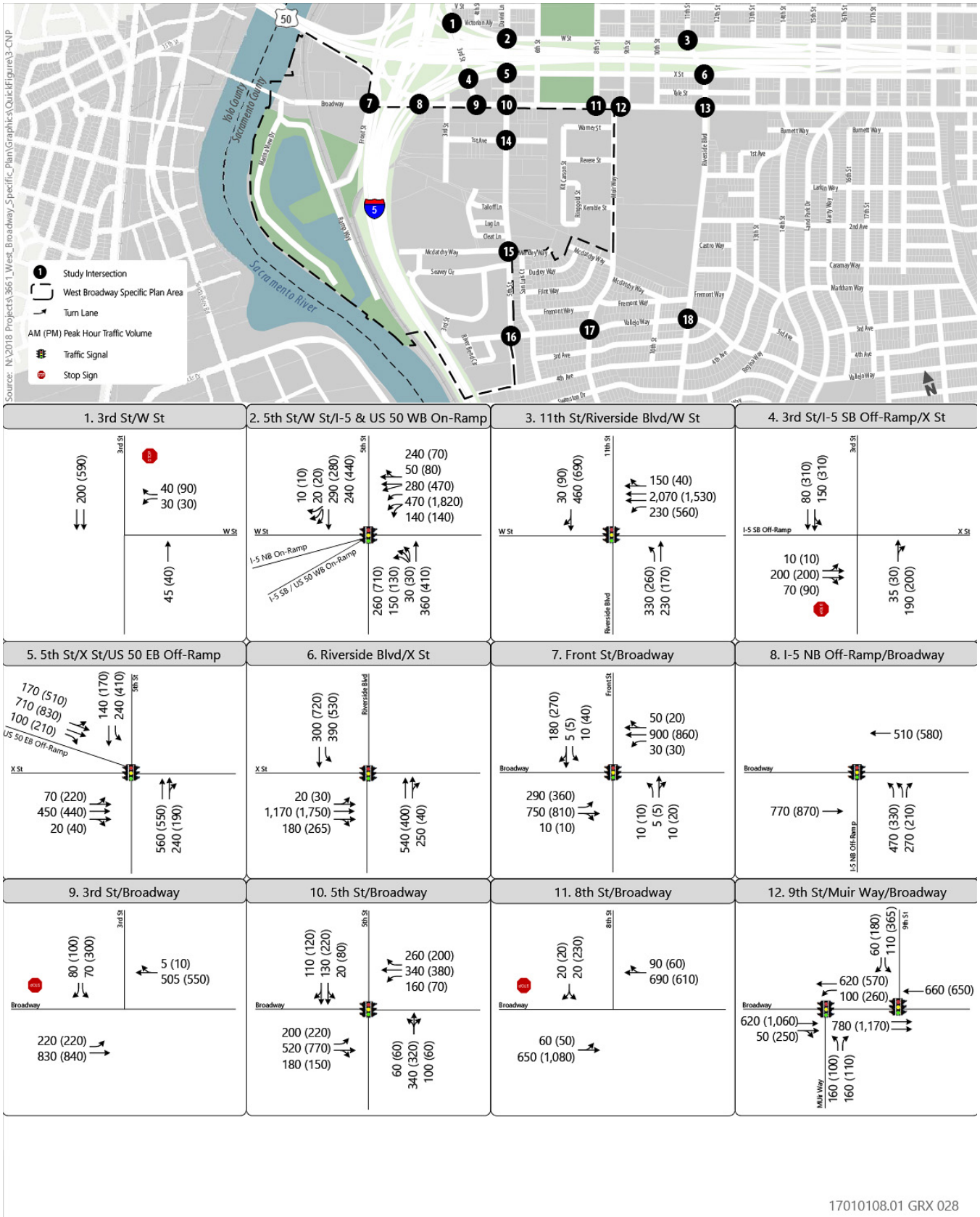
CUMULATIVE TRAVEL FORECASTS

A forecasting procedure known as the 'difference method' was used to develop the cumulative forecasts. This method accounts for potential differences between the base year model and existing traffic counts that could otherwise transfer to the future year model and traffic forecasts. This forecasting procedure is calculated as follows:

Cumulative Traffic Forecast = Existing Count Volume + (Cumulative Model Volume – Base Year Model Volume)

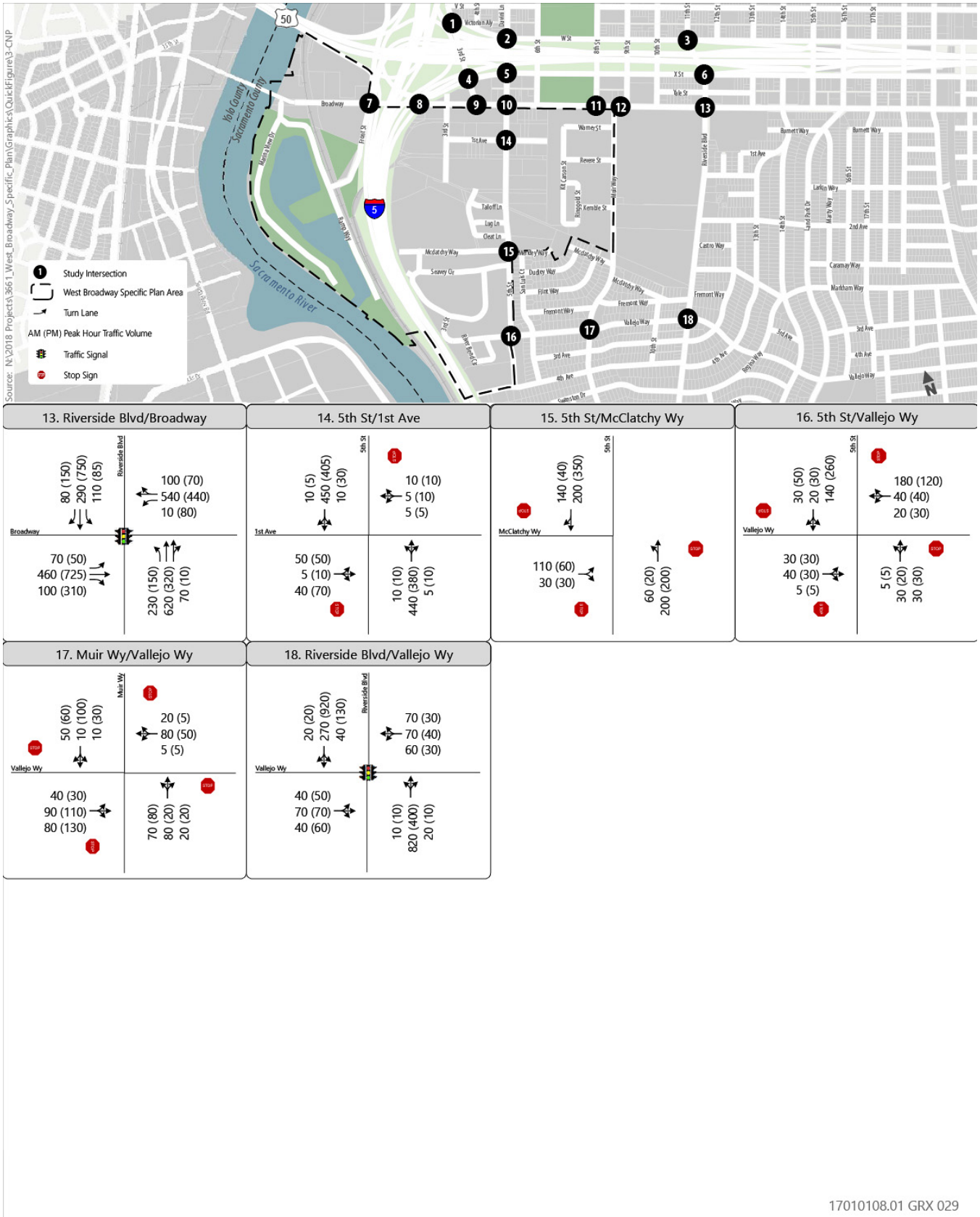
Figures 4.12-12a and 4.12-12b display the AM and PM peak hour intersection traffic volumes, traffic controls, and lane configurations under Cumulative No Project conditions.

The same methodology was also used to develop Cumulative Plus WBSP traffic forecasts, using the cumulative year version of the SACMET model, with implementation of the WBSP land use and transportation network. Figures 4.12-13a and 4.12-13b display the AM and PM peak hour intersection traffic volumes, traffic controls, and lane configurations under Cumulative Plus WBSP conditions.



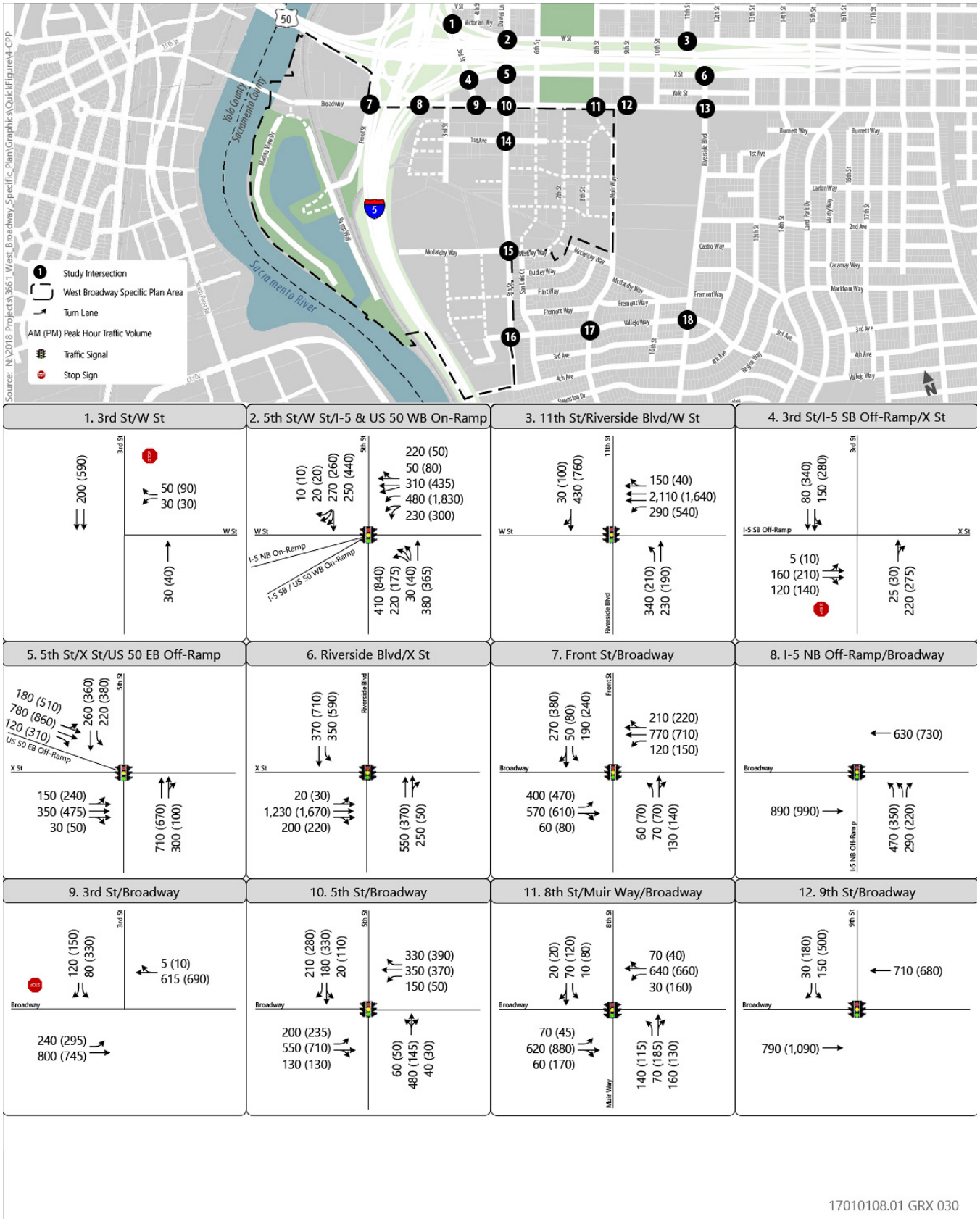
Source: Image prepared and provided by Fehr & Peers in 2019

Figure 4.12-12a Cumulative No Project Peak Hour Traffic Volumes and Lane Configurations



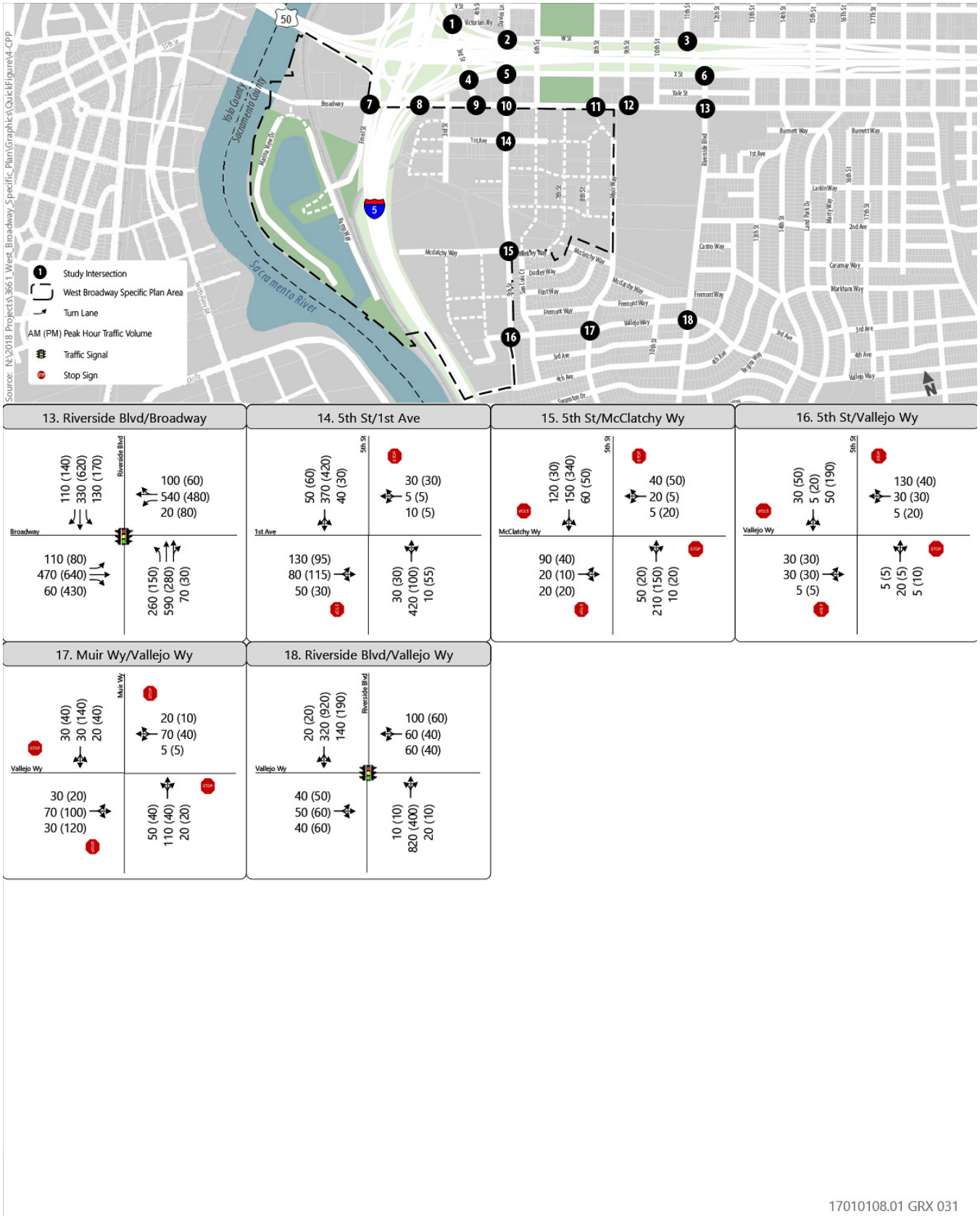
Source: Image prepared and provided by Fehr & Peers in 2019

Figure 4.12-12b Cumulative No Project Peak Hour Traffic Volumes and Lane Configurations



Source: Image prepared and provided by Fehr & Peers in 2019

Figure 4.12-13a Cumulative Plus WBSP Peak Hour Traffic Volumes and Lane Configurations



Source: Image prepared and provided by Fehr & Peers in 2019

Figure 4.12-13b Cumulative Plus WBSP Peak Hour Traffic Volumes and Lane Configurations

CUMULATIVE INTERSECTION OPERATIONS

Table 4.12-12 displays the AM and PM peak hour intersection operations at the study intersections under Cumulative No Project and Cumulative Plus WBSP conditions.

Table 4.12-12 Intersection Operations – Cumulative Plus WBSP Conditions

Intersection	Traffic Control	LOS Standard	Peak Hour	Cumulative No Project		Cumulative Plus WBSP	
				Delay[1]	LOS	Delay[1]	LOS
1. W Street / 3rd Street	SSSC	F	AM PM	1 (6) 10 (12)	A (A) B (B)	1 (6) 100 (142)	A (A) F (F)
2. W Street / 5th Street	Signal	F	AM PM	34 72	C E	67 80	E E
3. W Street / 11th Street / Riverside Blvd	Signal	F	AM PM	84 76	F E	69 101	E F
4. X Street / 3rd Street	SSSC	F	AM PM	4 (9) 64 (115)	A (A) F (F)	5 (9) 141 (394)	A (A) F (F)
5. X Street / 5th Street	Signal	F	AM PM	51 121	D F	57 159	E F
6. X Street / Riverside Blvd	Signal	F	AM PM	64 64	E E	44 59	D E
7. Broadway / Front Street	Signal	F	AM PM	23 96	C F	83 139	F F
8. Broadway / I-5 NB Off-Ramp	Signal	F	AM PM	15 52	B D	27 53	C D
9. Broadway / 3rd Street (N)	SSSC	F	AM PM	7 (21) 74 (231)	A (C) F (F)	15 (33) 136 (671)	B (D) F (F)
10. Broadway / 5th Street	Signal	F	AM PM	45 144	D F	72 118	E F
11. Broadway / 8th Street	SSSC / Signal	F	AM PM	6 (18) 77 (123)	A (C) F (F)	48 52	D D
12. Broadway / Muir Way / 9th Street	Signal	F	AM PM	36 160	D F	29 53	C D
13. Broadway / Riverside Blvd	Signal	F	AM PM	41 61	D E	68 44	E D
14. 1st Ave / 5th Street	SSSC	D	AM PM	9 (21) **70 (181)**	A (C) **F (F)**	24 (78) 24 (54)	C (F) C (F)
15. McClatchy Way / 5th Street	AWSC	D	AM PM	9 8	A A	9 8	A A
16. Vallejo Way / 5th Street	AWSC	D	AM PM	6 6	A A	5 6	A A
17. Vallejo Way / Muir Way	AWSC	D	AM PM	6 6	A A	6 6	A A
18. Vallejo Way / Riverside Blvd	Signal	D	AM PM	53 **66**	D **E**	**105** **107**	**F** **F**

Notes: LOS = Level of Service. SSSC = Side-Street Stop-Controlled. AWSC = All-Way Stop-Controlled. Bold indicates unacceptable operations. **Bold and underlined** indicates significant impact.

[1] For signalized and AWSC intersections, average intersection delay is reported in seconds per vehicle for all approaches. For SSSC intersections, the LOS and control delay for the worst movement is shown in parentheses next to the average intersection LOS and delay. Impacts to intersections are determined based on the overall LOS and average delay. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010). All intersections were analyzed using SimTraffic.

Source: Data provided by Fehr & Peers in 2019.

As shown in Table 4.12-12, delays are generally higher throughout the study area under cumulative conditions. Several intersections operate at LOS F during the AM and/or PM peak hours, including the following.

- Intersection 3 (W Street / 11th Street / Riverside Boulevard) – AM peak hour
- Intersection 4 (X Street / 3rd Street / I-5 Southbound Off-Ramp) – PM peak hour
- Intersection 5 (X Street / 5th Street) – PM peak hour
- Intersection 7 (Broadway / Front Street) – PM peak hour
- Intersection 8 (Broadway / 3rd Street North) – PM peak hour
- Intersection 10 (Broadway / 5th Street) – PM peak hour
- Intersection 11 (Broadway / 8th Street) – PM peak hour
- Intersection 12 (Broadway / Muir Way / 9th Street) – PM peak hour
- Intersection 14 (1st Avenue / 5th Street) – PM peak hour

Under Cumulative Plus WBSP conditions, the project would add traffic and additional delay at multiple intersections. However, operations would generally improve on Broadway between 5th Street and Riverside Boulevard, especially during the PM peak hour. This improvement is partially due to the realignment of Muir Way and the consequent elimination of inefficient clustered intersection signal timing between Broadway / Muir Way and Broadway / 9th Street (intersection 12). In addition, the realignment increases the vehicle storage distance between Muir Way and 9th Street on Broadway. The table shows that intersection 12 improves from 160 seconds of delay under cumulative conditions to 53 seconds of delay under Cumulative Plus WBSP conditions.

Operations would also improve with implementation of the WBSP at 1st Avenue / 5th Street (intersection 14). This is attributed to both the Muir Way realignment and the Specific Plan Area's connectivity to Broadway. The WBSP's grid network south of Broadway also increases connectivity and diffusion of traffic.

CUMULATIVE OFF-RAMP QUEUES

Table 4.12-13 displays the off-ramp queuing within the study area during the AM and PM peak hours under Cumulative No Project and Cumulative Plus WBSP conditions. The US 50 eastbound off-ramp queue at X Street / 5th Street would spill back to the freeway mainline under Cumulative No Project conditions during the PM peak hour. The addition of the WBSP would worsen the magnitude of this queue.

Table 4.12-13 Off-Ramp Queuing – Cumulative Plus WBSP Conditions

Location	Available Storage[1] (feet)	Peak Hour	Queue[2] (feet)	
			Cumulative No Project	Cumulative Plus WBSP
I-5 SB Off-Ramp at X Street / 3rd Street / X Street	1,175	AM PM	75 250	100 775
US 50 EB Off-Ramp at X Street / 5th Street	1,300	AM PM	525 **1,475**	625 **2,675**
I-5 NB Off-Ramp at Broadway	1,000	AM PM	150 300	250 400

Notes: **Bold** indicates queue that extends beyond available storage length. **Bold and underlined** indicates significant impact.

1. Storage length is measured using aerial imagery.

2. Maximum queue is calculated using an average of 10 SimTraffic runs.

Source: Data provided by Fehr & Peers in 2019.

CUMULATIVE IMPACTS

This section presents the results of the cumulative impact analysis, identifies cumulatively considerable impacts, and recommends mitigation measures, where necessary. The focus of this section is on presenting the transportation effects of the WBSP in the context of cumulative conditions and addressing those effects. This cumulative impact analyses does not rely on any list of specific pending, reasonably foreseeable development proposals in the general vicinity of the proposed WBSP. As described below, this cumulative assessment relies on existing and future development accommodated under the City's 2035 General Plan, which is included in the SACOG MTP/SCS regional travel demand model. For transportation and traffic impacts, the geographic focus of the cumulative analysis is the study area and intersections previously identified in Figure 4.12-1.

Impact 4.12-8: Cumulative Impacts to Vehicle Miles Traveled

The WBSP under Cumulative Plus Project conditions would result in reduced VMT per service population relative to Existing Conditions, but would exceed 85 percent of the existing average for the SACOG region. The WBSP is located within a Transit Priority Area under year 2036 conditions, as identified by SACOG in the 2016 MTP/SCS, which provides exemption for significant impact to vehicle miles traveled, and as a result, the project is not cumulatively considerable. Therefore, this would be a **less-than-significant** impact.

This section provides estimates of the daily VMT that would be generated by the Specific Plan Area and the evaluation of the project's effect on VMT regionally under cumulative conditions.

Table 4.12-14 displays the daily VMT per service population (total residents and employees) generated by the Specific Plan Area under Cumulative Plus WBSP conditions. The SACMET future year travel demand models were run with the WBSP, and all travel to/from the traffic analysis zones representing the Specific Plan Area was tracked throughout the model and adjusted to account for trips leaving the SACOG boundary using the California Statewide Travel Demand Model.

Table 4.12-14 Specific Plan Area VMT per Service Population – Cumulative Conditions

Scenario	Specific Plan Area			Specific Plan Area Generated	
	Residents	Employees	Service Population	Daily VMT	Daily VMT per Service Population
Cumulative Plus WBSP	10,096	975	11,071	245,164	22.1

Source: Data provided by Fehr & Peers in 2019.

As shown, the implementation of the plan to would result in a daily VMT per service population generated by the Specific Plan Area of 22.1 under Cumulative Plus WBSP conditions.

Table 4.12-15 displays the daily VMT per service population generated by SACOG region under Cumulative Plus WBSP Conditions.

Table 4.12-15 SACOG Region VMT per Service Population

Scenario	SACOG Region			SACOG Region Generated	
	Residents	Employees	Service Population	Daily VMT	Daily VMT per Service Population
Cumulative Plus WBSP	2,821,126	1,327,346	4,148,472	97,101,880	23.4

Source: Data provided by Fehr & Peers in 2019.

The existing VMT per service population for the region is 25.4. The Specific Plan Area VMT per service population under Cumulative Plus WBSP conditions would be below the existing regional average (87 percent of the existing regional average); however, this would exceed the 85 percent of the existing regional average significance threshold.

The Specific Plan Area is also located within a Transit Priority Area under year 2036 conditions, as identified by SACOG in the 2016 Metropolitan Transportation Plan / Sustainable Communities Strategy (MTP/SCS). Transit Priority Areas are defined as areas within one-half mile of a rail station stop or a high-quality transit corridor (fixed route bus service with service intervals of 15 minutes or less during peak commute hours). As discussed previously, RT Route 51 provides 15-minute headways under existing conditions and has a stop located immediately northeast of the Specific Plan Area. Under cumulative conditions, the planned Broadway Bridge connecting West Sacramento and Sacramento provides additional connections and opportunities for transit through the Specific Plan Area. The MTP/SCS identifies a high-quality transit route along Broadway and across the Broadway Bridge in place under cumulative conditions.

Based on the above analysis, VMT per service population for the WBSP exceeds 85 percent of the existing average for the SACOG region under Cumulative Plus Project conditions; however, the WBSP would be located within a Transit Priority Area under cumulative conditions; therefore, this would be a **less-than-significant** cumulative impact.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.12-9: Cumulative Impacts to Intersection Operations

Under Cumulative Plus WBSP conditions, all study intersections would operate acceptably during the AM and PM peak hours, except for Riverside Boulevard / Vallejo Way (intersection 18). Because the project would cause operations at a study intersection to degrade to an unacceptable level during the AM peak hour and exacerbate unacceptable operations during the PM peak hour, it would be considered cumulatively considerable, and this would be a **potentially significant** cumulative impact.

Table 4.12-12 shows cumulative intersection operations (refer to Appendix G for technical calculations). While most intersection operations degrade with the addition of the project, some improve. Operations would generally improve on Broadway between 5th Street and Riverside Boulevard, especially during the PM peak hour. This improvement is partially due to the realignment of Muir Way and the consequent elimination of inefficient clustered intersection signal timing between Broadway / Muir Way and Broadway / 9th Street.

Two intersections would operate unacceptably under Cumulative No Project conditions:

- Intersection 14 (1st Avenue / 5th Street) – PM peak hour
- Intersection 18 (Riverside Boulevard / Vallejo Way) – PM peak hour

Under Cumulative Plus WBSP conditions, operations at intersection 14 would improve to LOS C during the PM peak hour. Although the project would add additional traffic to the roadway network, improved connectivity to Broadway and within the Specific Plan Area would result in traffic dispersion to 6th Street, 7th Street, and Muir Way. This traffic dispersion would result in less PM peak hour northbound traffic north of 1st Avenue under Cumulative Plus WBSP conditions than under Cumulative No Project conditions. Because the project would not degrade cumulative operations, there would not be a cumulatively considerable impact at intersection 14.

At intersection 18, the WBSP would further degrade unacceptable operations during the PM peak hour. As shown in Table 4.12-12, operations at this intersection would drop from LOS E under Cumulative No Project conditions to LOS F under Cumulative Plus WBSP conditions during the PM peak hour. Furthermore, the project would cause this intersection to degrade from LOS D to LOS F during the AM peak hour. Intersection 18 operates poorly with cumulative background traffic and WBSP project traffic due to conflicting traffic volume between the northbound/southbound left-turning and through movements. In addition, the offset nature of this intersection requires inefficient split timing on the eastbound and westbound approaches. For these reasons, the project's effect on intersection operations at Riverside Boulevard / Vallejo Way would be **cumulatively considerable**, and impacts would be **potentially significant.**

Mitigation Measures

No feasible mitigation is available. Payment of fair share towards the installation of a dedicated northbound and southbound left-turn pockets at the Riverside Boulevard / Vallejo Way intersection and retiming the traffic signal was considered as potential mitigation, however, this would require removal of the existing dedicated bike lanes at this intersection. As this would remove existing bicycle facilities and create a gap in the City's bicycle network, this is not considered to be feasible mitigation.

Significance after Mitigation

As noted above, installation of dedicated northbound and southbound left-turn pockets and retiming the signal would improve vehicle movements at the intersection of Riverside Boulevard/Vallejo Way such that the intersection would operate acceptably during both AM and PM peak hours. As shown in Table

4.12-16, AM peak hour operations would improve from LOS F to LOS D with mitigation. In addition, PM peak hour operations would improve from LOS F to LOS C.

Table 4.12-16 Intersection Operations – Cumulative Plus WBSP with Mitigation

Intersection	Traffic Control	LOS Standard	Peak Hour	Cumulative No Project		Cumulative Plus WBSP		Cumulative Plus WBSP with Mitigation	
				Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS
18. Vallejo Way / Riverside Blvd	Signal	D	AM	53	D	**105**	**F**	42	**D**
			PM	**66**	**E**	**107**	**F**	20	**C**

Notes: LOS = Level of Service. SSSC = Side-Street Stop-Controlled. AWSC = All-Way Stop-Controlled. **Bold** indicates unacceptable operations. **Bold and underlined** indicates significant impact.

1. For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. Impacts to intersections are determined based on the overall LOS and average delay. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM 2010 (Transportation Research Board 2010). All intersections were analyzed using SimTraffic.

Source: Data provided by Fehr & Peers in 2019.

However, the City has determined that reconfiguration to the lane striping at the intersection would not be able to accommodate bike lanes through the intersection, which would create an additional gap in the bikeway network. Therefore, no feasible mitigation is available to reduce this impact to less than significant, and therefore, this would be a **significant and unavoidable** impact.

Impact 4.12-10: Cumulative Impacts to Freeway Off-Ramp Queuing

The project would worsen off-ramp queueing under cumulative conditions. During the PM peak hour, the US 50 eastbound off-ramp queue at X Street / 5th Street would extend beyond storage capacity under Cumulative No Project conditions. The addition of the WBSP would exacerbate this unacceptable condition, which would be considered cumulatively considerable. Therefore, this would be a **potentially significant** cumulative impact.

Table 4.12-13 displays the Cumulative Plus WBSP off-ramp queuing within the study area during the AM and PM peak hours. As shown, freeway off-ramp queuing would increase with addition of the project, especially during the PM peak hour. The US 50 EB off-ramp queue at X Street / 5th Street would already extend beyond available storage capacity and block the freeway mainline under Cumulative No Project conditions. Addition of the WBSP would exacerbate this unacceptable condition. All other queues would remain within their available storage area during both peak hours. Because unacceptable queuing is exacerbated with the WBSP, the project's impact to freeway off-ramp queuing would be considered cumulatively considerable, and impacts would be **potentially significant**.

Mitigation Measures

Mitigation Measure 4.12-10: Pay Fair Share Contribution to I-5 Freeway Subregional Corridor Mitigation Program

Pay fair share contribution to the I-5 Freeway Subregional Corridor Mitigation Program (SCMP).

Significance after Mitigation

The impact fee for new developments within the I-5 corridor will be used to construct a set of transportation improvements identified in the SACOG 2016 MTP/SCS. Under the SCMP, a project applicant whose project would generate vehicle trips over the threshold could choose to pay the fee, which would constitute mitigation of their development project's impacts on the freeway mainline.

The mitigation measure described above would reduce the contribution of the WBSP to freeway off-ramp related traffic impacts to a less-than-cumulatively-considerable level, and impacts would be **less than significant**.

Impact 4.12-11: Cumulative Impacts to Bicycle Facilities

Implementation of the WBSP would not adversely affect existing or planned bicycle facilities under cumulative conditions. The project would also include additional facilities that would also provide adequate access by bicycle, such that it would not be considered cumulatively considerable. This would be a **less-than-significant** impact.

The project would not change any existing bicycle facilities, except modification of Muir Way with the realignment to 8th Street at Broadway. This modification of bicycle facilities on Muir Way would be accompanied with class II bike lanes along the new alignment. Additional bicycle facilities would be included with the addition of WBSP, as shown previously in Figure 4.12-10, would provide adequate access by bicycle to the Specific Plan Area. These new bicycle facilities would not conflict with facilities identified in the City's *Bicycle Master Plan* and would build upon the network identified for the Specific Plan Area in the plan. As a result, these planned improvements would reduce the WBSP's contribution such that it would be less than cumulatively considerable, and this would be a **less-than-significant** impact.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.12-12: Cumulative Impacts to Pedestrian Facilities

Implementation of the WBSP would not adversely affect existing pedestrian or conflict with planned pedestrian facilities. The project would also include additional facilities that would also provide adequate access for pedestrians. This would be a **less-than-significant** impact.

The proposed WBSP does not include any components that will adversely affect existing pedestrian facilities or conflict with any planned pedestrian facilities. The proposed plan includes multiple new pedestrian connections, including filling gaps in existing sidewalks, construction of a gridded street network with new sidewalks that will improve access for pedestrians, and would construct multiple off-street pathways dedicated for pedestrian and bicycle use. The WBSP would also enhance the pedestrian environment with streetscape treatments such as pedestrian-scale lighting, landscaping, street furniture, etc. Additionally, new traffic controls and crosswalks will improve pedestrian safety at crossings. As a result, these planned improvements would reduce the WBSP's contribution such that it would be less than cumulatively considerable, and this impact would be **less-than-significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.12-13: Cumulative Impacts to Transit

Existing high-quality transit currently serves the northeast portion of the Specific Plan Area. The WBSP eliminates gaps and removes barriers and provides several new gridded areas that will improve access to transit provided by Regional Transit.. The plan also specifies that it will support enhancements to existing bus stops. The WBSP would provide adequate access to transit under cumulative conditions; therefore, this would be a **less-than-significant** impact.

The WBSP supports enhancements to existing bus stops, which include improved lighting, shelter or shade, benches or seating, which may encourage increase transit usage. In addition, the WBSP also includes additional roadways that would increase the grid network within the Specific Plan Area, which would increase access to existing transit facilities.

Currently, the northeast portion of the Specific Plan Area is served by frequent transit (RT routes 11, 51, 102). SACOG identifies additional high-quality transit under cumulative conditions (fixed route bus service with service intervals of 15 minutes or less during peak commute hours) along Broadway across the future Broadway Bridge, connecting West Sacramento and Sacramento.

The planned elimination of gaps, removal of barriers, and provision of several gridded areas that improve access to transit provided by Regional Transit that would be in place under cumulative conditions would provide adequate access to transit. As a result, implementation of the WBSP would be less than cumulatively considerable, and this would be a **less-than-significant** impact.

Mitigation Measures

No mitigation is required for this impact.

4.13 UTILITIES AND SERVICE SYSTEMS

This section evaluates the availability of existing utility and infrastructure systems (water, wastewater, stormwater, electricity, and natural gas) to serve the West Broadway Specific Plan (WBSP or "the project") and the impact of the project on these systems. The analysis is based on documents obtained from the City of Sacramento and the West Broadway Specific Plan Utility Infrastructure Analysis prepared by Ascent Environmental, Inc., and NV5, Inc., in June 2019.

Comments were received in response to the Notice of Preparation for this EIR from the Pacific Gas & Electric Company (PG&E) and the Sacramento Municipal Utilities District (SMUD). The letter from PG&E included specific recommendations regarding existing gas transmission and distribution facilities throughout the project area as well as required protection practices. The letter from SMUD included specific recommendations regarding existing overhead and underground 21kV line easements as well as the potential need for new infrastructure. Comments regarding utility requirements are addressed in this section. The potential for hazards/upset conditions associated with gas pipelines during construction is addressed in Section 4.8, "Hazards and Hazardous Materials."

4.13.1 Regulatory Setting

FEDERAL

Clean Water Act

The Clean Water Act (CWA) employs a variety of regulatory and non-regulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. Those portions of the CWA that relate to wastewater and stormwater discharges are discussed below.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established under the CWA to regulate municipal and industrial discharges to surface waters of the US. NPDES permit regulations have been established for broad categories of discharges including point source waste discharges and nonpoint sources (nonpoint source discharges are further discussed in Section 4.10, "Hydrology and Water Quality"). Each NPDES permit identifies limits on allowable concentrations and mass loadings of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. Section 307 of the CWA describes the factors that EPA must consider in setting effluent limits for priority pollutants.

NPDES permits cover various industrial and municipal discharges, including discharges from storm sewer systems in larger cities, stormwater generated by industrial activity, runoff from construction sites disturbing more than 1 acre, and mining operations. Point source dischargers must obtain a discharge permit from the proper authority (usually a state, sometimes EPA, a tribe, or a territory). So-called "indirect" point source dischargers are not required to obtain NPDES permits. "Indirect" dischargers send their wastewater into a public sewer system, which carries it to the municipal sewage treatment plant, through which it passes before entering any surface water.

The CWA was amended in 1987 with Section 402(p) requiring NPDES permits for nonpoint source (i.e., stormwater) pollutants in discharges. Stormwater sources are diffuse and originate over a wide area rather than from a definable point. The goal of the NPDES stormwater regulations is to improve the

water quality of stormwater discharged to receiving waters to the “maximum extent practicable” using structural and nonstructural best management practices (BMPs). BMPs can include educational measures (e.g., workshops informing the public of what impacts can result when household chemicals are dumped into storm drains), regulatory measures (e.g., local authority of drainage-facility design), public-policy measures (e.g., labeling storm-drain inlets as to impacts of dumping on receiving waters) and structural measures (e.g., filter strips, grass swales, and detention ponds).

Environmental Protection Agency’s National Combined Sewer Overflow Control Policy

The EPA initiated its Combined Sewer Outflow (CSO) Control Policy (40 CFR 122) in April 1994. The CSO Control Policy provides a national level framework for the control and management of CSOs. The CSO Control Policy provides guidance regarding how to achieve Clean Water Act (CWA) goals and requirements when faced with management of a CSO. Key components of the CSO Control Policy that are relevant to the project include a requirement for Nine Minimum Controls (NMCs), which apply to every combined sewer system (CSS) in the nation. The NMCs are minimum technology-based actions or measures that are designed to reduce CSOs and their effects on receiving water quality. The intent of the NMCs is to be implementable without extensive engineering studies or major construction. The policy requires that at least 85 percent of the average annual CSS storm flow must be captured and routed to at least primary treatment with disinfection before discharge.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA), Subtitle D, contained in Title 42 of the United States Code section 6901 et seq. contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria. The federal regulations address the location, operation, design, groundwater monitoring, and closure of landfills. The US EPA waste management regulations are codified in 40 CFR 239-282. The RCRA Subtitle D is implemented by Title 27 of the PRC, approved by the US EPA.

Safe Drinking Water Act

As mandated by the Safe Drinking Water Act (SDWA) (Public Law 93-523), passed in 1974, the Environmental Protection Agency (EPA) regulates contaminants of concern to domestic water supply. Such contaminants are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated by EPA primary and secondary Maximum Contaminant Levels (MCLs). MCLs and the process for setting these standards are reviewed every three years. Amendments to the SDWA enacted in 1986 established an accelerated schedule for setting drinking water MCLs. EPA has delegated responsibility for California’s drinking water program to the State Water Resources Control Board Division of Drinking Water (SWRCB-DDW). SWRCB-DDW is accountable to EPA for program implementation and for adoption of standards and regulations that are at least as stringent as those developed by EPA.

STATE

Integrated Waste Management Act (Assembly Bill 939)

Regulation affecting solid waste disposal in California is embodied in PRC Title 14, known as the Integrated Waste Management Act originally adopted in 1989. AB 939 was designed to increase landfill life by diverting solid waste from landfills within the state and conserving other resources through increasing recycling programs and incentives. AB 939 requires that counties prepare Integrated Waste Management Plans to implement landfill diversion goals and requires that cities and counties prepare and adopt Source Reduction and Recycling Elements (SRRE). The SRRE must set forth a program for management of solid waste generated with the jurisdiction of the respective city or county. Each source

reduction and recycling element must include, but is not limited to, all of the following components for solid waste generated in the jurisdiction of the plan:

- A waste characterization component,
- A source reduction component,
- A recycling component,
- A composting component,
- A solid waste facility capacity component,
- A funding component, and
- A special waste component.

The SRRE programs are designed to achieve landfill diversion goals by encouraging recycling in the manufacture, purchase and use of recycled products. AB 939 also requires that California cities implement plans designed to divert the total solid waste generated within each jurisdiction by 50 percent based on a base year of 2000. The diversion rate is adjusted annually for population and economic growth when calculating the percentage achieved in a particular jurisdiction.

Assembly Bill 1220

The California Department of Resources Recycling and Recovery (CalRecycle) and the State Water Board completed a parallel rulemaking as a result of AB 1220 (Chapter 656, Statutes of 1993). AB 1220 required clarification of the roles and responsibilities of the two boards, the RWQCBs and CalRecycle's local enforcement agencies in regulating solid waste disposal sites. The approved Title 27 regulations combine prior disposal site/landfill regulations of CalRecycle and the State Water Board that were maintained in Title 14 CCR and Chapter 15 of Title 23 CCR (which contains requirements for disposal of hazardous waste).

The purpose for CalRecycle standards in this subdivision is to protect public health and safety and the environment. The regulations apply to active and inactive disposal sites, including facilities or equipment used at the disposal sites. These standards make clear that the primary responsibility for enforcing state minimum standards rests with the local enforcement agency in cooperation with the RWQCB or other oversight agency. Subchapters of Title 27 include operating criteria for landfills and disposal sites, requirements to have enough materials to cover waste to prevent a threat to human health and the environment, requirements for operations at solid waste facilities for the handling of waste and equipment needs of the site, requirements for controlling activities on site, requirements for controlling landfill gas that is created from the decomposition of wastes on site, and requirements of the owner/operator of a facility to properly operate the site to protect the site from fire threat.

Assembly Bill 341

In an effort to reduce greenhouse gas emissions from disposing of recyclables in landfills, AB 341 (Chapter 476, Statutes of 2011) requires local jurisdictions to implement commercial solid waste recycling programs. Businesses that generate four cubic yards or more of solid waste per week or multifamily dwellings of five units or more must arrange for recycling services. To comply with AB 341, jurisdictions' commercial recycling programs must include education, outreach and monitoring of commercial waste generators and report on the process to CalRecycle. Jurisdictions may enact mandatory commercial recycling ordinances to outline how the goals of AB 341 will be reached. For businesses to comply with AB 341, they must arrange for recyclables collection through self-haul,

subscribing to franchised haulers for collection, or subscribing to a recycling service that may include mixed waste processing that yields diversion results comparable source separation.

Assembly Bill 1826

To further reduce greenhouse gas emissions from disposing of organics materials in landfills, AB 1826 (Chapter 727, Statutes of 2014) requires businesses to recycle their organic waste beginning on April 1, 2016, depending on the amount of solid waste they generate per week. Similar to AB 341, jurisdictions are required to implement an organic waste recycling program that includes the education, outreach and monitoring of businesses that must comply. Organic waste refers to food waste, green waste, landscaping and pruning waste, nonhazardous wood waste, and food-soiled paper that is mixed with food waste.

California Code of Regulations, Energy Efficiency Standards

Energy consumption in new buildings in California is regulated by State Building Energy Efficiency Standards (CALGreen) contained in the California Code of Regulations, Title 24, Part 2, Chapter 2-53. Title 24 applies to all new construction of both residential and nonresidential buildings, and regulates energy consumed for heating, cooling, ventilation, water heating, and lighting. The 2016 Building Energy Efficiency Standards have improved efficiency requirements from previous codes and the updated standards are expected to result in a statewide consumption reduction (CEC 2015).

California Environmental Quality Act

Appendix F of the State CEQA Guidelines sets forth goals for energy conservation, including decreasing per capita energy consumption and reliance on fossil fuels and increasing reliance on renewable energy sources. CEQA requires EIRs to describe potential energy impacts of projects, with an emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (Public Resources Code [PRC] Section 21100[b][3]).

The California Energy Commission (CEC) prepares an integrated policy report every two years that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (CEC 2017a). Energy efficiency is one of the key components of the state's strategy to reduce greenhouse gas emissions (GHGs) and to achieve reduction targets set forth by Assembly Bill (AB) 32, Senate Bill (SB) 32, and Governor Brown's Executive Order B-30-15. Efficiency achieved through building codes, appliance standards, and ratepayer-funded programs has had a positive impact on GHG emissions in recent years (CEC 2017a:10). The policy report discusses efforts to decarbonize California's energy system and recognizes transitioning to zero- and near-zero emission vehicles will be a fundamental part of meeting the state's climate goals.

The California Public Utilities Commission (CPUC) 2008 Energy Efficiency Strategic Plan established goals of having all new residential construction in California be zero net energy (ZNE) by 2020 and all new commercial construction ZNE by 2030 (CPUC 2008).

California Public Resources Code 41780

The California State Legislature set the policy goal for the state that not less than 75 percent of solid waste generated be source reduced, recycled or composted by the year 2020. Furthermore, a 50 percent diversion rate will be enforced for local jurisdictions.

California Safe Drinking Water Act

The SWRCB-DDW is responsible for implementing the federal SDWA and its updates, as well as California statutes and regulations related to drinking water. State primary and secondary drinking-water standards are promulgated in California Code of Regulations (CCR) Title 22, Sections 64431–64501.

The California Safe Drinking Water Act (CA SDWA) was passed in 1976 to build on and strengthen the federal SDWA. The CA SDWA authorizes the Department of Health Care Services to protect the public from contaminants in drinking water by establishing MCLs that are at least as stringent as those developed by EPA, as required by the federal SDWA.

California Water Conservation Act

The California Water Conservation Act was enacted in November 2009 and requires each urban water supplier to select one of four water conservation targets contained in California Water Code Section 10608.20 with the statewide goal of achieving a 20 percent reduction in urban per-capita water use by 2020.

Clean Energy and Pollution Reduction Act

On October 7, 2015, the Clean Energy and Pollution Reduction Act (SB 350) was signed into law, establishing new clean energy, clean air and GHG reduction goals for 2030 and beyond. SB 350 codifies Governor Brown's clean energy goals to increase California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030 and is part of California's overall strategy to address climate change (CEC 2017b). SB 350 enhances the state's ability to meet its long-term climate goal of reducing GHG emissions to 40 percent of 1990 levels by 2030 and 80 percent below 1990 levels by 2050 (CEC 2017b).

Green Building Initiative

In 2012, Governor Brown's Executive Order B-18-12 and its related Green Building Action Plan state the following energy and water efficiency improvement goals for facilities owned, funded, and leased by the State:

- All new state buildings beginning design after 2025 shall be constructed as ZNE facilities with an interim target for 50 percent of new facilities beginning design after 2020 to be ZNE. State agencies shall also take measures toward achieving ZNE for 50 percent of the square footage of existing state-owned building area by 2025.
- The state shall identify at least three buildings by January 1, 2013, to pursue ZNE as pilot projects.
- New and major renovated state buildings shall be designed and constructed to exceed the applicable version of CCR Title 24, Part 6, by 15 percent or more, and include building commissioning, for buildings authorized to begin design after July 1, 2012.
- Any proposed new or major renovation of state buildings larger than 10,000 square feet shall use clean, onsite power generation such as solar photovoltaic, solar thermal, and wind power generation, and clean backup power supplies, if economically feasible.
- New and major renovated state buildings larger than 10,000 square feet shall obtain Leadership in Energy and Environmental Design (LEED) "Silver" certification or higher.
- State agencies shall reduce water use at the facilities they operate by 10 percent by 2015 and by 20 percent by 2020, as measured against a 2010 baseline.

- All new and renovated state buildings and landscapes shall utilize alternative sources of water wherever cost-effective. Sources may include, but are not limited to recycled water, graywater, rainwater capture, stormwater retention, and other water conservation measures.
- Landscape plants shall be selected based on their suitability to local climate and site conditions, and reduced water needs and maintenance requirements.
- State agencies shall identify and pursue opportunities to provide electric vehicle charging stations, and accommodate future charging infrastructure demand, at employee parking facilities in new and existing buildings.

NPDES Permit for the Sacramento Regional Water Treatment Plant

In April 2016, the Central Valley Regional Water Quality Control Board (RWQCB) issued Waste Discharge Requirement (WDR) Order No. R5-2016-0020 (NPDES No. CA 0077682) to the Regional San for its Sacramento Regional Wastewater Treatment Plant (SRWWTP), which treats wastewater from its service area before discharging it to the Sacramento River. The original permit for the SRWWTP was issued in October 1974. This is an NPDES self-monitoring permit that outlines performance standards for the effluent into the Sacramento River. The water quality objectives established in the Central Valley RWQCB Basin Plan are protected, in part, by NPDES Permit No. CA 0077682.

The quality of the effluent that can be discharged to waterways within the Sacramento area is established by the Central Valley RWQCB through WDRs that implement the NPDES permit. WDRs are updated at least every 5 years. A new permit must be issued in the event of a major change or expansion of the facility.

NPDES Permit for the Combined Sewer System

In April 2015, the Central Valley RWQCB issued WDR Order No. R5-2015-0045 (NPDES No. CA 0079111) to the City of Sacramento for its Combined Wastewater Collection and Treatment System (Central Valley RWQCB 2015). The system was previously regulated by Order R5-2010-0004, which expired on January 1, 2010. Depending on flow volumes, wastewater and stormwater flows in this system are conveyed to the SRWWTP, Combined Wastewater Treatment Plant (CWTP) at South Land Park Drive and 35th Avenue, and Pioneer Reservoir at Front and V streets near the Sacramento River. The Order does not apply to operations at SRWWTP.

This Order implements the EPA CSO Control Policy, which establishes a consistent national approach for controlling discharges from CSOs to the nation's water through the NPDES permit program. This policy requires implementation of a long-term control plan (LTCP) to comply with water quality-based requirements of the CWA. The City of Sacramento adopted their LTCP, also known as the Combined Sewer System Improvement Plan (CSSIP), in 1995, which contained the infrastructure improvement portion of the LTCP.

WDR Order No. R5-2015-0045 identifies effluent limitations and discharge specifications for discharges from the CWTP and Pioneer Reservoir to the Sacramento River. Discharge from the system to surface waters or surface water drainage courses is prohibited during non-storm events. However, in the event that the capacity of the system is exceeded during a storm event, this Order allows for the discharge of overflows into the Sacramento River. The City is required to implement pollution prevention programs to reduce contaminants in CSOs.

NPDES Permit for Dewatering Activities

In May 2013, the Central Valley RWQCB issued WDR Order No. R5-2013-0074 (NPDES No. CAG995001) for short-term discharges of small volumes of wastewater from certain construction-related activities (General Dewatering Permit). Where groundwater levels tend to be shallow, dewatering during construction is sometimes necessary to keep trenches or excavations free of standing water when improvements or foundations/footings are installed. Clean or relatively pollutant-free water that poses little or no risk to water quality may be discharged directly to surface water under certain conditions. Permit conditions for the discharge of these types of wastewaters to surface waters are specified in "General Order for Dewatering and Other Low-Threat Discharges to Surface Waters" (Order No. R5-2013-0074, NPDES No. CAG995001). Discharges may be covered by the General Dewatering Permit provided they are (1) either four months or less in duration or (2) the average dry weather discharge does not exceed 0.25 million gallons per day (mgd) and meet the effluent limitations provided in the order for pH, turbidity, total suspended solids, and biological oxygen demand. Construction dewatering, well development water, pump/well testing, and miscellaneous dewatering/low-threat discharges are among the types of discharges that may be covered by the General Dewatering Permit. The General Dewatering Permit also specifies standards for testing, monitoring, and reporting, receiving water limitations, and discharge prohibitions. When project construction would exceed four months in duration or 0.25 mgd, a project-specific permit from the Central Valley Water Board is required. Impacts associated with construction dewatering are addressed entirely within Section 4.9, Hydrology and Water Quality.

Sustainable Groundwater Management Act of 2014

The Sustainable Groundwater Management Act of 2014 (SGMA) became law on January 1, 2015, and applies to all groundwater basins in the state (Water Code section 10720.3). (The SGMA is comprised of three separate bills: Senate Bill (SB) 1168, SB 1319, and Assembly Bill (AB) 1739. All three were signed into law by the Governor on September 16, 2014.) By enacting the SGMA, the legislature intended to provide local agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater within their jurisdiction (Water Code section 10720.1).

Pursuant to SGMA, any local agency that has water supply, water management, or land use responsibilities within a groundwater basin may elect to be a "groundwater sustainability agency" for that basin (Water Code Section 10723). Local agencies had until January 1, 2017 to elect to become or form a Groundwater Sustainability Agency (GSA). In the event a basin is not within the management area of a GSA, the county within which the basin is located will be presumed to be the GSA for the basin. However, the county may decline to serve in this capacity (Water Code section 19724).

In October 2015, the Sacramento Groundwater Authority (SGA) Board submitted a notification of intention to become the GSA for the Sacramento County portion of the North American sub-basin (DWR 2019). Following a 90-day comment period, SGA was designated as the exclusive GSA for its management area in late January 2016 and coordinated with representatives throughout the North American Basin to ensure effective GSAs were formed covering the entire subbasin by June 30, 2017 (SGA 2019).

Groundwater authorities will have additional powers under the SGMA to manage groundwater within the basin, including, for example, the power to: conduct investigations of the basin, to require registration of groundwater extraction facilities and metering of groundwater extractions, regulate groundwater extractions from individual groundwater wells or wells generally, and to assess fees on groundwater extractions (see generally, Water Code section 10725 et seq.). SGMA also provides local agencies with additional tools and resources designed to ensure that the state's groundwater basins are sustainably managed.

SGMA also requires DWR to categorize each groundwater basin in the state as high-, medium-, low-, or very low priority (Water Code Sections 10720.7, 10722.4). The North American subbasin was previously categorized as high priority in the California Statewide Groundwater Elevation Monitoring (CASGEM) Basin Prioritization Process released in June 2014. The results of the 2018 CASGEM Basin Prioritization Results are currently pending for the North American subbasin and is scheduled to be released Spring 2019 (DWR 2018). All basins designated as high- or medium-priority basins must be managed by a groundwater sustainability agency under a GSP that complies with Water Code section 10727 et seq.

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (UWMPA) (California Water Code Sections 10610–10656). The UWMPA states that every urban water supplier that provides water to 3,000 or more customers, or that provides more than 3,000 acre-feet (AF) of water annually, should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. This effort includes the adoption of an Urban Water Management Plan (UWMP) by every urban-water supplier and an update of the plan every 5 years on or before December 31, of every year ending in a five or zero. The UWMPA has been amended several times since 1983 with the most recent amendment occurring with Senate Bill (SB) 318 in 2004. The UWMPA and SB 610, described below, are interrelated; the UWMP is typically relied upon to meet the requirements for SB 610.

Water Supply Assessment

California Public Resources Code (PRC) Section 21151.9 requires that a Water Supply Assessment (WSA) be prepared for proposed plans as defined in the statute to ensure that long term water supplies are sufficient to meet the project's demands in normal, single dry and multiple dry years for a period of 20 years. Preparation of a WSA is required if a proposed action meets the statutory definition of a "project," which includes at least one of the following (Water Code section 20912(a)):

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A proposed industrial, manufacturing, or processing plant, or industrial park 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; or
- A mixed-use project that includes one or more of the projects specified in the above bullets.

Completion of a WSA requires collection of proposed water supply data and information relevant to the project in question, an evaluation of existing/current use, a projection of anticipated demand sufficient to serve the project for a period of at least 20 years, delineation of proposed water supply sources, and an evaluation of water supply sufficiency under single year and multiple year drought conditions.

LOCAL

City of Sacramento 2035 General Plan

Water

The following policies of the Utilities Element of the 2035 General Plan are relevant to development in the Specific Plan Area and the provision of water supply utility systems.

GOAL U 2.1: High-Quality and Reliable Water Supply. Provide water supply facilities to meet future growth within the city's Place of Use and assure a high-quality and reliable supply of water to existing and future residents.

- **Policy U 2.1.3: Water Treatment Capacity and Infrastructure.** The City shall plan, secure funding for, and procure sufficient water treatment capacity and infrastructure to meet projected water demands.
- **Policy U 2.1.4: Priority for Water Infrastructure.** The City shall give high priority in capital improvement programming to funding rehabilitation or replacement of critical infrastructure that has reached the end of its useful life.
- **Policy U 2.1.9: New Development.** The City shall ensure that water supply capacity is in place prior to granting building permits for new development.
- **Policy U 2.1.15: Landscaping.** The City shall continue to require the use of water-efficient and river-friendly landscaping in all new development, and shall use water conservation gardens (e.g., Glen Ellen Water Conservation Office) to demonstrate and promote water conserving landscapes.

Stormwater and Wastewater

The City of Sacramento 2035 General Plan includes the following goals and policies related to stormwater and wastewater that are considered applicable to the WBSP:

GOAL U 1.1: High-Quality Infrastructure and Services. Provide and maintain efficient, high quality public infrastructure facilities and services throughout the city.

- **Policy U 1.1.1: Provision of Adequate Utilities.** The City shall continue to provide and maintain adequate water, wastewater, and stormwater drainage utility services utility services to areas in the city currently receiving these services from the City, and shall provide and maintain adequate water, wastewater, and stormwater drainage utility services to areas in the city that do not currently receive these City services upon funding and construction of necessary infrastructure.
- **Policy U 1.1.5: Growth and Level of Service.** The City shall require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.

GOAL U 3.1: Adequate and Reliable Sewer and Wastewater Facilities. Provide adequate and reliable sewer and wastewater facilities that collect, treat, and safely dispose of wastewater.

- **Policy U 3.1.1: Sufficient Service.** The City shall provide sufficient wastewater conveyance, storage, and pumping capacity for peak sanitary sewer flows and infiltration.

- **Policy U 3.1.2: New Developing Areas.** The City shall ensure that public facilities and infrastructure are designed to meet ultimate capacity needs. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future. Infrastructure and facility planning should discourage over-sizing of infrastructure that could contribute to growth beyond what is anticipated in the General Plan.
- **Policy U 3.1.4: Combined Sewer System Rehabilitation and Improvements.** In keeping with its Combined Sewer System (CSS) Long Term Control Plan (LTCP), the City shall continue to rehabilitate the CSS to decrease flooding, CSS outflows and Combined System Overflow (CSO). Through these improvements and new development requirements the City shall also insure that development in the CSS does not result in increased flooding, CSS outflows or CSOs.

GOAL U 4.1: Adequate Stormwater Drainage. Provide adequate stormwater drainage facilities and services that are environmentally-sensitive, accommodate growth, and protect residents and property.

- **Policy U 4.1.1: Adequate Drainage Facilities.** The City shall ensure that all new drainage facilities are adequately sized and constructed to accommodate stormwater runoff in urbanized areas.
- **Policy U 4.1.4: Watershed Drainage Plans.** The City shall require developers to prepare watershed drainage plans for proposed developments that define needed drainage improvements per City standards, estimate construction costs for these improvements, and comply with the City's National Pollutant Discharge Elimination System (NPDES) permit.
- **Policy U 4.1.6: New Development.** The City shall require proponents of new development to submit drainage studies that adhere to City stormwater design requirements and incorporate measures, including "green infrastructure" and Low Impact Development (LID) techniques, to prevent on- or off-site flooding.

Solid Waste

The following policies of the Utilities Element of the 2035 General Plan are relevant to development in the Specific Plan Area and the provision of solid waste collection and disposal.

GOAL U 5.1: Solid Waste Facilities. Provide adequate solid waste facilities, meet or exceed State law requirements, and utilize innovative strategies for economic and efficient collection, transfer, recycling, storage, and disposal of refuse.

- **Policy U 5.1.5: Residential and Commercial Waste Disposal.** The City shall continue to provide curbside trash and recycling collection service to single-family residential dwellings and offer collection service to commercial and multi-family residential development.

Energy-Related Utilities

The following policies of the Utilities Element of the 2035 General Plan are relevant to development in the Specific Plan Area and energy-related utility service.

GOAL U 6.1: Adequate Level of Service. Provide for the energy needs of the city and decrease dependence on nonrenewable energy sources through energy conservation, efficiency, and renewable resource strategies.

- **Policy U 6.1.1: Electricity and Natural Gas Services.** The City shall continue to work closely with local utility providers to ensure that adequate electricity and natural gas services are available for existing and newly developing areas.

- **Policy U 6.1.5: Energy Consumption per Capita.** The City shall encourage residents and businesses to consume 25 percent less energy by 2030 compared to the baseline year of 2005.
- **Policy U 6.1.7: Solar Access.** The City shall ensure, to the extent feasible, that sites, subdivisions, landscaping, and buildings are configured and designed to maximize passive solar access.
- **Policy U 6.1.10: Utility Programs.** The City shall support SMUD and PG&E programs that promote energy efficiency, energy conservation, renewable energy, and greenhouse gas emissions reductions.
- **Policy U 6.1.15: Energy Efficiency Appliances.** The City shall encourage builders to supply Energy STAR appliances and HVAC systems in all new residential developments and shall encourage builders to install high-efficiency boilers where applicable, in all new non-residential developments.

City of Sacramento Municipal Code

Chapter 15.92, "Water Efficient Landscape Requirements," is based on the State's Model Efficient Landscape Ordinance. The Ordinance requires more efficient irrigation systems, including meters on parcels over a certain size, restrictions on overhead water use, and flow sensors on landscaped areas over 5,000 sf. The Ordinance also limits the area that can be planted with high water use plants to 55 percent for residential landscape projects and 45 percent for non-residential landscapes. The City requires project applicants to submit a landscape documentation package for review and approval by the City. The landscape documentation package must contain project information that demonstrates compliance with the Ordinance, including a water-efficient landscape worksheet, a soil management report, a landscape design plan, an irrigation design plan, and a grading design plan.

Sacramento Regional Solid Waste Authority

The Sacramento Regional Solid Waste Authority (SWA) was initially formed in 1992 to oversee solid waste, recycling, and disposal needs in the greater Sacramento area. The SWA is a Joint Powers Authority that is funded by franchise fees. The SWA is overseen by a Board of Directors, which is composed of elected officials from member cities (currently the City of Sacramento) and Sacramento County. The SWA regulates commercial solid waste collection by franchised haulers through ordinances. SWA ordinances include the requirement that franchised haulers achieve a 30 percent recycling rate and to offer recycling services to businesses and multi-family dwelling units.

Stormwater Quality Design Manual

The City of Sacramento adopted the Stormwater Quality Design Manual (SQDM) for the Sacramento and South Placer Regions (July 2018), a joint effort of the communities in the greater Sacramento region. The SQMD provides locally-adapted information for design and selection of three categories of stormwater quality control measures: source control, runoff reduction and treatment control. Per the requirements, multi-family and commercial projects greater than one acre are required to implement permanent post-construction treatment measures.

The Specific Plan Area is subject to the requirements of the SQDM only for those projects that fall within the boundary of Miller Park and the Marina. All projects greater than one acre would be required to comply with the stormwater quality measures outlined in the SQMD. These measures may include treatments measures such as bioswale planters, stormwater treatment vaults, green roofs, etc. either used as a single treatment or as a combination of several measures. Developers are urged to discuss their project with the Stormwater Quality Section of the City's Utility Department while in the planning

stages so that proper permanent post construction stormwater quality treatment measures can be effectively implemented into the project.

The remainder of the Specific Plan Area is within the CSS, which is under NPDES permit regulations for stormwater discharges. The stormwater flows from the CSS are treated at the SRWWTP, CWTP, and the Pioneer treatment facilities. Therefore, projects within the CSS are not required to have additional stormwater quality control measures.

Dewatering

All new groundwater discharges to the CSS or separated sewer system are regulated and monitored by the City's Utilities Department pursuant to Department of Utilities Engineering Services Policy No. 0001, adopted as Resolution No. 92-439 by the Sacramento City Council. Groundwater discharges to the City's sewer system are defined as construction dewatering discharges, foundation or basement dewatering discharges, treated or untreated contaminated groundwater cleanup, discharges, and uncontaminated groundwater discharges.

The City requires that any short-term discharge be permitted, or an approved Memorandum of Understanding (MOU) for long-term discharges be established, between the discharger and the City. Short-term limited discharges of seven days duration or less must be approved through the City Department of Utilities by acceptance letter. Long-term discharges of greater duration than seven days must be approved through the City Department of Utilities and the Director of the Department of Utilities through an MOU process. The MOU must specify the type of groundwater discharge, flow rates, discharge system design, a City-approved contaminant assessment of the proposed groundwater discharge indicating tested levels of constituents, and a City-approved effluent monitoring plan to ensure contaminant levels remain in compliance with State standards or the Sacramento County Regional Sanitation District (Regional San) and Central Valley Water Board-approved levels. All groundwater discharges to the sewer must be granted a Regional San discharge permit. If the discharge is part of a groundwater cleanup or contains excessive contaminants, Central Valley Water Board approval is also required. See Section 4.9, Hydrology and Water Quality for more information regarding groundwater.

Stormwater Management and Discharge Control Code

The Stormwater Management and Discharge Control Code (Chapter 13.16 of the Sacramento Municipal Code) protects and promotes the health, safety and general welfare of the citizens of the city by controlling non-stormwater discharges to the stormwater conveyance system, by eliminating discharges to the stormwater conveyance system from- spills, dumping, or disposal of materials other than stormwater, and by reducing pollutants in urban stormwater discharges to the maximum extent practicable. The code is intended to assist in the protection and enhancement of the water quality of watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Water Pollution Control Act (Clean Water Act, 33 U.S.C. Section 1251 et seq.), Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.) and National Pollutant Discharge Elimination System (NPDES) Permit No. CAS082597, as such permit is amended and/or renewed.

The Stormwater Management and Discharge Control Code requires prior written approval from the City’s Department of Utilities for discharges of pumped groundwater not subject to a NPDES permit, provides measures to reduce pollutants in stormwater, requires compliance with best management practices, and requires containment and notification of spills.

Impact Fees

The City adopted the Combined Sewer Development Fee (City Code 13.08.490) which is an impact mitigation fee that requires mitigation of any significant increase in wastewater flows over the present level. If a proposed development project is determined to have a significant impact on the CSS, an acceptable mitigation plan is required by the City. The current CSS Development Fee is $142.76 per Equivalent Single-Family Dwelling (ESD) for up to 25 ESD and $3562.53 per ESD for more than 25 ESDs (fees subject to change every July 1st). The payment of the fees mitigates the project's sewer impacts.

The City offers an incentive through their Economic Development Treatment Capacity Bank Sewer Credits program providing credits that reduce sewer connection fees for commercial, new construction and residential homeowner projects. The program's objective is to provide economic incentives for commercial and industrial sewer customers and facilitate new employment opportunities. A copy of the program application can be obtained at http://www.cityofsacramento.org/Economic-Development/Grow-Here/Incentives.

There is a second fee associated with the sanitary sewer system, the Facility Impact Fee levied by the Sacramento Regional County Sanitation District (SRCSD). This fee pays for planning, designing, construction, and other related costs for wastewater conveyance, treatment, and disposal facilities for system expansion.

The SRCSD Facility Impact Fee currently is calculated by multiplying the ESDs generated by the development by the fee of $3,358 per ESD for infill projects. It is possible in certain cases to receive a credit of 1 ESD per parcel as credit for previously paid fees. Sacramento County policy determines when the credit is allowed. The County has published the method of calculating the ESDs for the different types of development. Additional information is available online at http://www.srcsd.com.

4.13.2 Environmental Setting

Public utilities in the project area are provided by various entities, as identified in Table 4.13-1 and discussed in detail below.

Table 4.13-1 Utilities Providers for the Project Area

Utility	Agency/Provider
Water Supply	City of Sacramento Department of Utilities
Wastewater Collection and Conveyance	City of Sacramento Department of Utilities (Combined Sewer System)
Wastewater Treatment	Sacramento Regional County Sanitation District (SRCSD)
Stormwater Conveyance	City of Sacramento Department of Utilities (Combined Sewer System)
Solid Waste Collection	City of Sacramento Recycling and Solid Waste Division Sacramento Regional Solid Waste Authority
Electrical Service	Sacramento Municipal Utility District
Natural Gas	Pacific Gas & Electric Company

Source: Data compiled by Ascent Environmental in 2019

WATER SUPPLY

The City provides domestic water to the Specific Plan Area and utilizes both surface water and groundwater to meet water demands. The City treats surface water diverted from the Sacramento River and American River through the Sacramento River Water Treatment Plant (SRWTP) and the E.A. Fairbairn Water Treatment Plant (FWTP), respectively. Additionally, the City extracts groundwater from both the North Sacramento and Central Sacramento basins. The current reliable water production capacity is approximately 280 mgd (NV5 2019:11).

Along with supplying domestic water to retail customers, the City also has agreements in place to supply water on a wholesale and wheeling basis to other districts and water purveyors including Sacramento Suburban Water District, California-American Water Company, Fruitridge Vista Water Company, and the Sacramento County Water Agency. To comply with the State's Urban Water Planning Management Act, the City of Sacramento has developed an UWMP to pursue the conservation and efficient use of available water supplies and to ensure an appropriate level of reliability in its water service sufficient to meet the needs of its customers (City of Sacramento 2016:3-2, 3-3).

Surface Water Supply and Water Treatment Plants

The Sacramento River Water Treatment Plant (SRWTP) began operation in 1924 with an initial capacity of 32 mgd and treats water diverted from the Sacramento River approximately one-half mile downstream of the confluence of the American River. A new water intake structure, located approximately 700 feet downstream of the old intake structure, was completed in 2003. Other expansions and modifications completed by the City since the 1920s increased the treatment plant design capacity to 160 mgd. The most recent project was completed in 2016, which replaced many of the older facilities at the SRWTP in order maintain the 160 mgd capacity into the foreseeable future.

The E.A. Fairbairn Water Treatment Plant (FWTP) is located adjacent the American River approximately seven miles upstream with the Sacramento River. The FWTP began operation in 1964 and has a current diversion limit of 200 mgd following an expansion completed in 2005. Currently, the California Department of Public Health (CDPH) has permitted a capacity of 160 mgd. However, the amount of water diverted is further limited by the so-called Hodge Flow Criteria which restricts diversions from the FWTP under certain low river flow conditions. Hodge conditions have historically occurred about 50 percent of the time and can be present in any month of the year. During the time of peak demand, most often in June, July, or August, the Hodge Flow Criteria could limit the diversion rate at the FWTP to 100 mgd. As a result of this constraint, sufficient pipe capacity to move the 160 mgd into the distribution system has not been constructed. The current facility is physically constrained to approximately 130 mgd, when Hodge is not triggered.

City of Sacramento and United States Bureau of Reclamation (USBR) Agreement

The City also has a water rights settlement contract entered into in 1957 by the City and the USBR, following the USBR's construction of Folsom Dam which provided improved flood control to downstream communities. The essence of the City/USBR settlement contract is that the City agreed to (1) limit its combined rate of diversion under its American River water rights permits to a maximum of 675 cubic feet per second (cfs), up to a maximum amount of 245,000 acre-feet per year (AFY) in the year 2030, and (2) limit its rate of diversion under its Sacramento River water rights permit to a maximum of 225 cfs and a maximum amount of 81,800 AFY. This limits the City's total diversions of Sacramento and American River water to 326,800 AFY in the year 2030. The contract also specifies an annual build-up schedule to this maximum amount.

In return, the contract requires USBR to make available at all times enough water in the rivers to enable the agreed-upon diversions by the City. The City agreed to make an annual payment to USBR for Folsom Reservoir storage capacity used to meet the USBR's obligations under the contract, beginning with payment for 8,000 AF of storage capacity in 1963 and building up, more or less linearly, to payment for the use of 90,000 AF of storage capacity in 2030. The settlement contract is permanent and not subject to deficiencies. The USBR contract, in conjunction with the City's water rights, provides the City with a reliable and secure water supply.

Extremely Dry Years (Conference Years)

The City's diversions of American River water at the FWTP are also subject during certain time periods to limitations specified in the Water Forum Agreement (WFA). The Water Forum was started in 1993 by a group of water managers, local governments, business leaders, agricultural leaders, environmentalists, and citizen groups with two "co-equal" goals: to provide a reliable and safe water supply through the year 2030, and to preserve the wildlife, fishery, recreational, and aesthetic values of the Lower American River. After six years of intense interest-based negotiations, the Water Forum participants approved the 2000 WFA.

As part of the WFA, each water purveyor signed a purveyor specific agreement (PSA) that specified that purveyor's Water Forum commitments. The City's PSA limits the quantity of water diverted from the American River at the FWTP during two hydrologic conditions: extremely dry years (i.e., "Conference Years") and periods when river flows are below the so-called "Hodge Flow Criteria." The Hodge Flow Criteria are based on the case of EDF v. East Bay Municipal Utility District (Superior Court, Alameda County, 1990, No. 425955), where the court (Judge Hodge) established minimum flow levels that would have to be met in the American River in order for East Bay Municipal Utility District to divert water into the Folsom South Canal. These flow levels have come to be known as "Hodge" flows.

The City's PSA defines extremely dry years (i.e., "Conference Years") as years in which the California Department of Water Resources (DWR) projects an annual unimpaired flow into Folsom Reservoir of 550,000 AFY or less, or the projected March through November unimpaired flow into Folsom Reservoir is less than 400,000 AFY. During Conference Years, the City has agreed to limit its diversions for water treated at the FWTP to 155 cfs and 50,000 AFY. Conference Years have occurred on the American River only twice during the 72-year period of record historical hydrology.

In addition to Conference Years, the City's PSA specifies limitations on the City's diversion rate at the FWTP when American River flows bypassing the FWTP are less than the Hodge Flow Criteria as follows: 2,000 cfs from October 15 through February; 3,000 cfs from March through June; and, 1,750 cfs from July through October 14.

Based on CALSIM-II9 analysis of the 1922 to 1994 climate data, in 59 percent of years the American River is predicted to experience flows that are less than Hodge flow conditions at some time during the peak months of June through August. When flows passing the FWTP are greater than the Hodge Flow Criteria and Conference Year conditions do not exist, the PSA allows diversions of American River water up to the FWTP's current maximum rate of 310 cfs (200 mgd).

It is important to note that the WFA does not restrict diversion under the City's American River entitlements from a Sacramento River diversion point (which leaves the water in the American River throughout its reaches); therefore, during a Conference Year condition the City's annual surface water diversion amounts are limited only by the FWTP Conference Year condition and the diversion and treatment capacity at the SRWTP. Assuming a maximum treatment capacity of 50,000 AFY at the

Fairbairn WTP and 180,000 AFY at the Sacramento WTP, the current drought limiting scenario allows a surface water production of 230,000 AFY.

Proposed Surface Water Supply Improvements

The City is participating as a partner in the RiverArc Project, a multi-agency effort to enhance water supply diversity and reliability on a regional scale. While providing additional water supply options for its stakeholders, the RiverArc Project would also increase the sustainability of regional groundwater supplies and provide additional environmental protection in the American River watershed. The RiverArc Project would divert water from the Sacramento River to offset water currently diverted from the American River and deliver that water to a new regional water treatment plant. That water would then be distributed through existing and new pipelines to local water agencies, including the City of Sacramento. For the City of Sacramento, the RiverArc Project would enable the City to divert surface water when the Hodge flow restrictions are in place on the American River. A new water treatment plant could also be used during peak periods, which would increase water supply reliability in the north Natomas area (RiverArc Project 2019).

Recent drought conditions reinforce the need for this project. Supportive stakeholders and water agencies are working quickly to identify and secure project development funding that may not exist in the future. This includes Proposition 1 funding and additional funding opportunities at the local, state, and federal levels. If funded, the RiverArc Project will kick-off in 2020. To date, a Planning Phase 1 report has been prepared, which lays out a conceptual plan to develop the backbone infrastructure necessary to connect the Sacramento River to the American River and incorporate the region's groundwater along the way. This phase is expected to last from 2020 to 2030 (RiverArc Project 2019).

Groundwater Supply

The City currently operates 27 municipal groundwater supply wells; 25 wells are located in the northern portion of the City, north of the American River, while the remaining two are located south of the American River. The total pumping capacity of the City's municipal supply wells is approximately 20 mgd, assuming 90 percent of the production capacity is available. The City has recently completed a well rehabilitation program that improved capacity at a number of existing wells. Overall, the groundwater facilities operated by the City are known to be at or near the end of useful life, and the City is currently preparing a groundwater master plan to help determine the direction and anticipated future capacity of the collective groundwater facilities. The City has also constructed one newer well in the southern portion of the system at Shasta Park, with a second well pending at the FWTP. These two projects are anticipated to supply potable water by 2017-2018. The City anticipates the groundwater pumping capacity to increase to approximately 25 mgd after the activation of the rehabilitated wells and completion of the new groundwater wells.

The City pumps groundwater from both the North American Subbasin and the South American Subbasin of the Sacramento Valley Groundwater Basin. The North American Subbasin is bound by Bear River to the north, Feather River to the west, the Sacramento and American Rivers to the south, and a north-south line extending from the Bear River to Folsom Lake to the east. The South American Subbasin is bound by the Sierra Nevada to the east, the Sacramento River to the west, the American River to the north, and the Cosumnes and Mokelumne Rivers to the south. For additional description of water bearing layers, groundwater quality, and other aquifer characteristics, as relevant to the proposed plan, please refer to Section 4.9, Hydrology and Water Quality.

The City is one of many water purveyors that use groundwater from these two subbasins. While the City pumps from both subbasins, more than 90 percent of the amount pumped by the City each year is pumped from the North American subbasin. For example, the City pumped 12,509 AF of groundwater

from the North American subbasin and 970 AF from the South American subbasin for potable water consumption in 2015 (City of Sacramento 2016:6-5).

The Sacramento Groundwater Authority (SGA) prepared a Groundwater Management Plan (GMP) in 2014, for the portion of the North American Subbasin that is located north of the American River to the Sacramento County line. Additionally, as a result of the Water Forum Successor Effort, the Central Sacramento County Groundwater Management Plan (CSCGMP) was prepared. These two plans identify measures to be taken to maintain a sustainable, high-quality groundwater resource.

The WFA identified a sustainable yield for the North Basin of 131,000 AFY. The SGA monitored groundwater extractions from the North Basin from 2000 to 2013 and estimated annual average extractions at 99,500 AFY. The GMP also reports that groundwater use declined during this period, largely because of implementation of conjunctive use operations and water use efficiency measures. The GMP concludes that the North Basin is well within its sustainable yield indicator, and because the North Basin is largely developed, it was not expected that new water demands would cause the Basin to approach its average annual sustainable yield (SGA 2014:59). The Water Forum estimated that the long-term average annual sustainable yield of the Central Basin was 273,000 AFY, while extractions were estimated at 250,000 AFY (SCGA 2006:ES-5). The CSCGMP identifies measures to maintain pumping levels within the sustainable yield, including reducing demand, conjunctive use with groundwater banking and exchange opportunities, and aquifer storage and recovery projects.

Recycled Water

Recycled water, if used within the city, would likely be used for irrigation purposes only. Recycled water is considered safe when appropriately used and meets State and Federal regulations for its intended purposes, which, in this case, is for non-potable uses such as landscape irrigation. Financial incentives, such as subsidized water pricing, may encourage recycled water use within the city. No recycled water is currently used within the city and recycled water is not currently included in the City of Sacramento supply projections. However, the Regional San Water Recycling Program 10 Year Update Report 2004-2014 identifies future project opportunities within the City of Sacramento including school fields, parks, golf courses, and landscaped street medians. The future anticipated recycled water use would be up to 1,700 AFY. In addition, in December 2010, a new regulatory mandate was issued by the Central Valley Regional Water Quality Control Board to treat all of Regional San's wastewater to tertiary level or "Title 22 equivalent effluent" by 2023. Upon compliance with these requirements, all of Regional San's approximately 150 million gallons per day could be available for additional water recycling opportunities (Regional San 2014:3, 4).

Water Demand

Existing water demand within the City is primarily residential, but also includes commercial, institutional, and landscape irrigation. Generally, water demand decreased from 2000 to 2010, because of a combination of factors, including increased conservation efforts, deployment of water conserving fixtures, replacement of leaky pipelines, increased public awareness over drought conditions, the City's meter retrofit program, and the effects of the recent recession. At present, approximately 90 percent of City water connections are on water meters, and the City anticipates that the remaining 10 percent will be installed by the end of 2020. The City also sells water to other regional agencies including Sacramento International Airport, Sacramento Suburban Water District, California American Water Company, and Sacramento County Water Agency.

Table 4.13-2 provides a projection of total water demand by the City for 2015 through 2040. Table 4.13-3 presents a summary of water demands and available supply during multiple dry years as outlined in the City's UWMP.

Table 4.13-2 City Maximum Total Water Demand through 2040 (AFY)

	2015	2020	2025	2030	2035	2045
Potable and Raw Water	86,031	162,817	177,265	197,468	206,799	219,615
Recycled Water	0	1,000	1,000	1,000	1,000	1,000
Total	86,031	163,817	178,265	198,468	207,799	220,615

Note: AFY = acre-feet per year

Source: City of Sacramento 2016, Table 4-8 and 4-9

Table 4.13-3 City Multiple Dry Year Supply and Demand Comparison, 2015 through 2040 (AFY)

Year Scenario	Water Supply or Demand	2020	2025	2030	2035	2045
1st Year, Multiple Dry Year Scenario	Supply Total	275,917	288,288	294,419	294,419	294,419
	Demand Total	123,229	130,548	139,882	149,213	162,029
	Excess Supply	152,688	157,740	154,537	145,206	132,390
2nd Year, Multiple Dry Year Scenario	Supply Total	275,917	288,288	294,419	294,419	294,419
	Demand Total	123,229	130,548	139,882	149,213	162,029
	Excess Supply	152,688	157,740	154,537	145,206	132,390
3rd Year, Multiple Dry Year Scenario	Supply Total	275,917	288,288	294,419	294,419	294,419
	Demand Total	123,229	130,548	139,882	149,213	162,029
	Excess Supply	152,688	157,740	154,537	145,206	132,390

Note: AFY = acre-feet per year

Source: City of Sacramento 2016, Table 7-11

Water Storage and Distribution

Water storage is used to meet water demand for periods when peak hour demand exceeds maximum daily supply rates. These high demand periods usually occur for four to six hours during hot summer days, and for potentially longer periods during large fire events. The City of Sacramento has ten above-ground storage reservoirs; each with a capacity of three million gallons (mg) and one underground reservoir with a capacity of 15 mg for a total capacity of 45 mg. The reservoirs are at different locations throughout the City's water distribution system. In addition, 44 mg of on-site storage exists at the water treatment plants (City of Sacramento 2015:4-22).

The City operates pumping facilities throughout the city. There are 18 high lift service pumps at SRWTP and FWTP. The City also maintains pumping facilities at ten of the City's storage reservoirs, and each of the groundwater wells. These pump stations are of varying sizes and capacities.

The City differentiates the water mains into two distinct categories: water distribution mains and water transmission mains. Water distribution mains are smaller pipelines located in the streets and alleys utilized for water services. Water transmission mains are larger pipelines utilized to convey water to the distribution mains (City of Sacramento 2015:4-22).

It is City policy to only utilize the water distribution mains for water services, fire services, and fire hydrants. These pipes are typically 4-inches to 12-inches in diameter. If no smaller pipe is available, existing water mains 14-inches and 16-inches in diameter may be considered distribution mains. These pipes may be tapped only with the approval of the City Department of Utilities. Considering each service tap is a potential weakening of the water main, the City currently has the policy to restrict the installation of service taps until after a project has been reviewed and approved by the City. This is to

restrict the number of taps to the mains to those that are in the ultimate location per an approved development plan. This reduces the number of service taps that are abandoned because of changes in the development plans (NV5 2019:12).

Water Supply Infrastructure in the Specific Plan Area

The Specific Plan Area is generally served by an extensive system of service mains ranging in size from 6-inches to 12-inches in diameter. These mains are typically older steel pipelines. The current development of the Mill is to provide a network of new water mains within this portion of the Specific Plan Area. Under the West Broadway Specific Plan Utility Infrastructure Analysis (Appendix H), strategic replacement of the smaller 6-inch and 8-inch pipelines is envisioned as part of the WBSP to serve the remaining potential infill development areas within the WBSP (NV5 2019:13).

A major transmission main serving the greater Downtown Sacramento area from the SRWTP enters the area at the northwest corner of the Specific Plan Area at Front Street. This 42-inch pipeline continues easterly through the Specific Plan Area along Broadway and then turns south along 5th Street to the southerly end of the Specific Plan Area. A 24-inch transmission main continues easterly along Broadway from the intersection at Broadway & 5th Street and then turns south following Muir Way along the easterly edge of the WBSP boundary (NV5 2019:13).

There are no active wells or reservoirs within the limits of the Specific Plan Area; however, there is an inactive irrigation well (Well #8) located near the end of Front Street northerly of the entrance to Miller Park and Marina. The nearest reservoir outside of the SRWTP is the Riverside Reservoir located south of the Specific Plan Area on the westerly side of Riverside Boulevard between 10th and 11th Avenues. This reservoir together with the SRWTP are identified by the City as Critical Infrastructure items (NV5 2019:13).

WASTEWATER AND STORMWATER

As noted above, the WBSP is served by the CSS with the exception of the Marina/Miller Regional Park Special Study Area, whose wastewater is collected via the CSS for sanitary sewer but stormwater is discharged directly to the Sacramento River. The CSS is the legacy storm drain and sanitary sewer system that conveys both stormwater and sanitary sewer flows to the SRWWTP. It encompasses approximately 7,500 acres of the Downtown, East Sacramento, and Land Park areas. Another 3,700 acres including the River Park, California State University, and eastern Sacramento areas utilize the system for sanitary sewer only. The City discontinued constructing combined sewer and storm systems in 1946, although continued connections to the existing CSS were allowed.

Wastewater Treatment Facilities

Wastewater flows collected from the Specific Plan Area are ultimately transported into the SRWWTP, which is located in Elk Grove and is owned and managed by Regional San. Currently, the SRWWTP has a National Pollutant Discharge Elimination System (NPDES) permit issued by the Central Valley Regional Water Quality Control Board (RWQCB) for discharge of up to 181 million gallons per day (mgd) of treated effluent into the Sacramento River.

Regional San is in the process of upgrading the SRWWTP. The upgrade, known as the EchoWater Project, must be built by 2021–2023 to meet new water quality requirements that were issued by the Central Valley RWQCB as part of Regional San's 2010 discharge permit. The requirements are designed primarily to help protect the Delta ecosystem downstream by removing most of the ammonia and nitrates and improving the removal of pathogens from wastewater discharge. The upgrade will include deployment of new treatment technologies and facilities, and will increase the quality of effluent

discharged into the Sacramento River and ensure that the SRWWTP discharge constituents are below permitted discharge limits specified in the NPDES permit. Flows to the SRWWTP have decreased as a result of water conservation efforts over the last 10 years. Further, adequate capacity for wastewater is anticipated well into the future. Flows in 2014 were approximately 141 mgd, compared to the capacity of 181 mgd stated above. It is not anticipated that Regional San will need to consider further improvements to the SRWWTP until after 2050 (Regional San 2014).

Combined Sewer System

The CSS is a collection system of pipes that convey both sanitary sewage and stormwater in a single pipeline. The piping system is greatly oversized for the sanitary sewer component, but inadequate for the City's current storm drainage design standard of 10-year capacity.

The CSS is plagued by CSO and overflows where flows to the CSS exceed the system capacity. Outflows are when surcharges to the CSS flow onto the streets. Overflows are defined as the rare instances when untreated flows discharge to the Sacramento River. Outflows and the rare overflow usually occur only during heavy rainfall storm events.

Currently all flows into the CSS are conveyed westerly to two pumping stations (Sump 2 and 1/1A) located on the Sacramento River. For secondary treatment and disinfection of the flow, the City has entered into an agreement with the SRWWTP to convey 60 mgd. This treatment capacity is currently sufficient for dry weather flows.

During heavy storms where the capacity is exceeded, the CWTP at South Land Park Drive and 35th Avenue is utilized to provide primary treatment of an additional 130 mgd. Excess flows from SRWWTP and CWTP are diverted to the Pioneer Reservoir storage and treatment facility that has a capacity of 350 mgd. When all three treatment facilities (SRWWTP, CWTP, and Pioneer) have reached capacity, excess flows are directly discharged into the Sacramento River without treatment from Sump 2. Sump 1 also has the ability to discharge flows directly to the river. When the pipeline system and treatment plant capacities are surpassed, the excess flows flood local streets in the Downtown area through maintenance holes and catch basins.

Combined Sewer System Improvement Plan

The CSS service area is currently regulated by the Central Valley RWQCB per Cease and Desist Order No. 85-342 (Order). The Order, including its amendments, requires the City to make operational improvements to reduce combined sewer and runoff overflows and to ultimately provide 10-year capacity for the CSS. The City has developed an improvement program to reduce CSO events. These improvements include rehabilitating and expanding Sumps 1/1A and 2, rehabilitating and converting Pioneer Reservoir into a treatment facility, rehabilitating and up-sizing of the sewer mains in the CSS, and rehabilitating the CWTP. Many of these projects have been completed.

The City prepared a CSSIP Update Report dated August 2014. This CSSIP Update Report is an ongoing, multi-year project intended to evaluate and provide recommendations for projects to alleviate flooding in the CSS area during a 10-year event and to prevent structure flooding during the 100-year event. The CSSIP Update Report analysis of the system improvements includes an allowance of increased sewer flows from future development.

Recommendations for specific project improvements that provide localized or system-wide reductions to flooding have been identified. The projects are prioritized based on considerations such as flood reduction benefits, cost-effectiveness, ensuring no increase in untreated discharges, sewer condition/age, cost-sharing opportunities, and City/community interests.

The CSSIP does not identify any projects directly within the Specific Plan Area. However, it does identify three projects along Riverside Avenue just to the east of the WSBP area. These recommended projects include:

1. WA3-5: Beverly Way In-line Storage
2. WA3-7: Target Parking Storage
3. WA6-2: Riverside Boulevard Upsizing

Wastewater Treatment Infrastructure within the WSBP Area

The CSS infrastructure that serves both the sanitary sewage and much of the stormwater needs of the CSS service area consists of pipes ranging in size from 6-inches to 120-inches in diameter. The largest pipe in the CSS is the 120-inch Pioneer Interceptor (force main) which conveys flows from Sump 2 to Pioneer Reservoir. Piping material includes brick, polyvinyl chloride (PVC), reinforced concrete pipe (RCP), and vitrified clay pipe (VCP). Flows for the system are through the Specific Plan Area and are generally from the north to the south.

In the Specific Plan Area, east of I-5, the collection system generally flows towards a 60-inch CSS pipeline located in 5th Street that flows through the Specific Plan Area from north to south. The easterly portion of the Specific Plan Area including the Alder Grove public housing project is collected into a 30-inch CSS main that flows towards Riverside Boulevard. The 120-inch CSS Pioneer Interceptor follows Front Street and along the westerly edge of Interstate 5 (I-5) to a point west of Leataata Floyd Elementary School where it crosses under the freeway and then follows the easterly side of I-5.

The drainage and sanitary sewage is typically collected in 8-inch to 12-inch piping systems located in the alleyways and streets. The collection system has collector pipelines ranging in size from 16-inch to 30-inch diameter. Development within the Specific Plan Area would require the upsizing of the smaller drain lines and inlet leads to a minimum of 12-inch to 15- inch diameter.

The Miller Park and Marina area sanitary sewer system consists of four sewer pump stations Sumps 3, 123, 124, and 125. These are small pump stations that collect the sewer from the area and discharge it to the CSS through a 6-inch force main located in Front Street. Sumps 123, 124, and 125 are all small duplex (two) pump stations with a firm capacity of 0.2 million gallons per day (mgd) that feed into the larger Sump 3 duplex pump station that has a firm capacity of 0.3 mgd. The storm drainage is collected in an 8-inch to 10-inch gravity system at three main points, two of which discharge into the water area of the Marina docks and the third discharges directly to the Sacramento River.

SOLID WASTE

The City collects all residential solid waste for customers within the City. Refuse from the south region of the city is transported to the Sacramento Recycling and Transfer Station (SRTS) at 8491 Fruitridge Road and refuse collected in the north region is transported to the Sacramento County North Area Recovery Station (NARS). Refuse is then hauled from both locations to the Sacramento County Kiefer Landfill. Commercial solid waste is collected by private franchised haulers and disposed of at various facilities including the SRTS, the Sacramento County Kiefer Landfill, the Yolo County Landfill, L and D Landfill, Florin Perkins Landfill, Elder Creek Transfer Station, and the Sacramento County North Area Recovery Station. In addition to collecting municipal refuse every week, the City collects garden refuse on a weekly basis, which is delivered to the SRTS and the Elder Creek Transfer Station; collects curbside recycling

every other week (as of July 1, 2013), which is brought to the SRTS; and offers a neighborhood cleanup collection and one dump coupon a year to each household (City of Sacramento 2015:4-44).

In 2017, the total reported amount of solid waste produced by the City of Sacramento was approximately 573,158 tons of solid waste (CalRecycle 2017a). Approximately 50 percent of the waste is recycled and the other 50 percent is disposed of in a landfill (City of Sacramento 2015:4-44). Several facilities provide solid waste disposal services to the City of Sacramento. These include the following, in order by the amount of waste the facility receives from commercial haulers and the City of Sacramento Recycling and Solid Waste Division (CalRecycle 2017b).

- Kiefer Landfill, located in Sloughhouse, California, is operated by Sacramento County and maintains a permitted capacity of 10,815 tons per day. The landfill has 112.9 million cubic yards of available capacity, and is estimated to have sufficient capacity to maintain operations until January 2064 (CalRecycle 2019a).
- L and D Landfill, located off of Fruitridge Road in Sacramento, California, is operated by L and D Landfill, LP. The landfill has a maximum capacity of 4,125 tons per day, with a remaining capacity of 4.1 million cubic yards, sufficient to provide service until January 2023. A large volume transfer facility is also located on site (CalRecycle 2019b).
- Forward Landfill, located southeast of Stockton, California, is operated by Allied Waste North America. The landfill has a maximum daily throughput of over 8,668 tons per day, with a remaining capacity of approximately 22 million cubic yards and is estimated to have sufficient capacity to maintain operations through 2021 (CalRecycle 2019c).
- Yolo County Central Landfill, located north of Davis, California, is operated by the Yolo County Planning and Public Works Department. The facility maintains a maximum daily throughput of 1,800 tons per day, with a maximum permitted capacity of 49 million cubic yards. The facility is expected to have sufficient capacity to allow operations until January 2081 (CalRecycle 2019d).

ELECTRICITY

SMUD provides electrical service to customers located within the Specific Plan Area. Power is transmitted to the Specific Plan Area by a 21kV distribution system off of Station D located at 8th and R Streets in Downtown Sacramento. There are two feeders from the substation within the Specific Plan Area, STD2301 and STD2303.

The entirety of the Specific Plan Area is served by the 21kV distribution system, consisting of mainly overhead facilities with areas of the Marina and the Mill at Broadway containing underground conduits. This system is fed by Station D feeders 2301 and 2303. Station D's two feeders total approximately 33MVA of load carrying capacity. Recently developed properties such as the newly developing Mill at Broadway often place the aerial facilities underground, generally in a joint trench with other dry utilities along the street frontage or in an alley.

NATURAL GAS

Pacific Gas & Electric Company (PG&E) supplies natural gas to the Sacramento area. During the winter, approximately 70 percent is imported from Canada and the balance is supplied from California production wells. During the summer, this ratio is reversed. Also, during the summer, gas prices are lower, so gas is stored in underground reservoirs for use during winter peak use periods.

The PG&E gas distribution system has high- and low-pressure distribution systems. The high-pressure system pipelines are generally 4-inch diameter and larger, carry gas at approximately 40 pounds per square inch (psi). Low pressure system pipelines, generally 2-inch diameter, carry gas at a pressure of 7-inch water column (about 0.25 psi). Service is generally provided from the low-pressure system unless usage exceeds about 3,000 cubic feet per hour; however, in the Specific Plan Area the system is all high pressure. Regulators are used to reduce high pressure to low pressure.

A major 24-inch gas transmission main Line 108 runs through the WSBP project area. The line enters the WSBP area from the north on 3rd Street to the intersection at Broadway and then runs easterly on Broadway to Muir Way where it turns southerly along Muir Way exiting at the southern WSBP boundary. This is identified by PG&E as a critical infrastructure facility. There is also a 20-inch high pressure distribution main located in Broadway from easterly edge of I- that extends beyond the WBSP easterly boundary.

The high-pressure gas system generally is served by a grid system throughout the Specific Plan Area. The high-pressure system pipelines range in size from 2-inch to 6-inch diameter. These mains are generally located in the streets with the exception of the Marina Vista and Alder Grove public housing developments and the William Land Woods Affordable Housing development, where the mains are sometimes located in the private streets, but mostly located in the open space between the buildings.

TELECOMMUNICATIONS

Within the Specific Plan Area there are numerous telecommunications providers. The following are the main providers for telephone and cable services.

AT&T – Telecommunications

AT&T supplies local and long-distance telephone service and data communications in most of the Sacramento area. The Specific Plan Area is served by the Main Wire Center at 14th and J Streets. AT&T serves the Specific Plan Area with a combination of overhead and underground conduit systems. The main lines are generally located in the streets with the exception of the Marina Vista and Alder Grove public housing and the William Land Woods Affordable Housing where the service lines are located throughout the developments.

Recently-developed properties such as the newly developing Mill at Broadway often place the aerial facilities underground, generally in a joint trench with other dry utilities along the street frontage or in an alley. Cabling in underground conduits can be either copper wire or fiber optic cable.

Comcast / AT&T Broadband

Comcast provides cable television service in the Sacramento area. AT&T Broadband leases conduit space and fiber optic cable capacity from Comcast in the Specific Plan Area. Comcast serves the Sacramento area with a combination of underground and overhead fiber optic and copper coaxial cable. The signal is generated at a downtown site on N Street near the Capitol and is distributed to hub sites throughout the service area, from which local service is distributed.

Verizon - XO Communications and Level 3 Communications

XO Communications provides network, internet, and telecommunications in the Sacramento area. They have fiber optic lines located inside an abandoned underground Kinder Morgan pipeline crossing the Sacramento River. The pipeline crosses the river from West Sacramento at the westerly end of Broadway following Broadway to 8th Street where it turns northward and exits the Specific Plan Area.

City of Sacramento

The City currently owns an existing fiber network that provides Municipal and Smart City services. The network provides connections between various traffic signals, utility sumps, reservoirs, and City facilities spread throughout the City. The network consists of approximately 160 miles of underground fiber optic cables and conduits that transverse the main corridors of the City. The fiber network currently enables the City to run efficient operations and reduces operational costs, while expanding capabilities. The telecommunications system consists of single or multiple underground conduits, pull boxes, and utility vaults that are interconnected with the traffic signals, utility services, and various City facilities. Within the Specific Plan Area this system is located along the Broadway corridor from Front Street eastward. The system is connected and looped though the Miller Regional Park and Marina area following the Front Street entrance.

4.13.3 Environmental Impacts and Mitigation Measures

ANALYSIS METHODOLOGY

Water Supply and Water Treatment

Impacts related to water supply and treatment were evaluated by estimating the project-generated increase in water demand and determining whether the existing water supply and infrastructure has adequate capacity to accommodate the increase.

Wastewater Treatment and Disposal

Impacts related to wastewater conveyance and treatment capacity were evaluated by estimating the project-generated increase in wastewater resulting from the project and determining whether the existing wastewater treatment and conveyance infrastructure has adequate capacity to accommodate the increase.

Solid Waste

Impacts related to solid waste were evaluated by estimating project-generated increase in solid waste and determining whether existing landfills and solid waste facility would be adequate to serve the project. Potential project-generated solid waste is evaluated using CalRecycle's reported 2017 solid waste generation rates for Sacramento (CalRecycle 2017c). In addition, the project was evaluated for consistency with solid waste reduction efforts and applicable plans, policies and regulations.

Electricity and Natural Gas

Impacts related to electricity and natural gas were analyzed by assessing existing facilities servicing the project area and determining project-generated demand on services. The need for additional infrastructure and its effects on the environment evaluated.

THRESHOLDS OF SIGNIFICANCE

A utilities and service systems impact is considered significant if implementation of the project would do any of the following:

- require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;

- have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;
- result in a determination by the wastewater treatment provider that 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;
- generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure;
- negatively impact the provision of solid waste services or impair the attainment of solid waste reduction goals; and/or
- comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

ISSUES NOT DISCUSSED FURTHER

All issues applicable to utilities and service systems listed under the significance criteria above are addressed in this chapter.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.13-1: Water Supply and Infrastructure Impacts

Existing water supplies would be adequate to serve the short-term and long-term needs of the project. Project-generated water demands would not exceed water supplies available during normal, dry and multiple dry years. The existing water transmission and distribution system within the Specific Plan Area is adequate to serve the anticipated increase demands with the redevelopment of the area. Therefore, impacts related to water supply and infrastructure would be **less than significant**.

The types of development envisioned under the WBSP are largely high-density, urban-infill-type projects. The redevelopment of existing land uses within the Specific Plan Area under the WBSP is anticipated to result in an additional 3,787 residential dwelling units, as well as some additional recreational facility space (approximately 42,500 square feet). There is an anticipated reduction of 10,775 square feet of commercial uses largely because of the redevelopment of the existing commercial/industrial properties within the Specific Plan Area. Based on the City's Water Study Design Manual (2018), which provides a table of gross unit water use factors for various residential and non-residential land uses, and assuming that the dwelling units anticipated under the WBSP would qualify as Residential High units, the anticipated increase in the water demand is 454 afy (= 3,787 DUs x 0.12 afy/du). The small increase of public/park/recreation building uses is offset by the anticipated reduction commercial/industrial uses and is considered negligible compared to the increase in residential uses (an increase of less than 1 afy).

As shown in Tables 4.13-2 and 4.13-4, below, the City's projected water supply is anticipated to exceed demand by 154,537 AFY in 2030 and 132,390 AFY in 2045 (City of Sacramento 2016). The City's 2015 UWMP determined the City's multiple dry-year supplies are adequate to meet projected demands (City of Sacramento 2016:7-12). Based on the City's 2015 UMWP projections, the project-generated water demand increase of 454 AFY would not exceed City water supplies, and existing water supply would be adequate to serve the development envisioned under the WBSP (NV5 2019; City of Sacramento 2019).

Table 4.13-4 Water Supply and Demand Comparison for the City of Sacramento

	2015	2020	2025	2030	2035	2045
Water Supply	265,479	275,917	288,288	294,419	294,419	294,419
Water Demand	84,832	123,229	130,548	139,882	149,213	162,029
Difference	180,647	152,688	157,740	154,537	145,206	132,390

Source: City of Sacramento 2016:100, Table 7-7

Of note, implementation of water conservation efforts, such as compliance with the State Water Conservation Act and the City's water efficient landscape ordinance, would further reduce water demand. In addition, the City's ongoing efforts to improve water supply such as the RiverArc project and other facility upgrades would continue to increase the City's reliable water supply. As a result, adequate water supplies are available to serve the projected demands of the City, including the WBSP (City of Sacramento 2019).

Infrastructure and Conveyance

The Specific Plan Area is well served by the existing water transmission and distribution system. The existing water transmission and distribution system within the Specific Plan Area is adequate to serve the anticipated increase demands with the redevelopment of the area (NV5 2019). As the majority of the redevelopment within the Specific Plan Area would occur on large, single-landowner properties, including Alder Grove, Marina Vista, The Mill Phase V, and Miller Regional Park. Connections to the existing backbone infrastructure would be required and would be sized according to the capacity necessary for individual structures/development. The construction of this infrastructure has been assumed as part of the overall assessment of development under the WBSP, as evaluated throughout this EIR.

Conclusion

As discussed above, the City's existing water supply would be sufficient to serve project-generated water demands during normal, dry, and multiple-dry years. Implementation of the WBSP would not require an expansion of existing water supply or treatment facilities. The existing water transmission and distribution system is adequate to serve the projected needs associated with implementation of the WBSP, and any necessary utility connections would be provided as part of individual project design and construction. Potential environmental impacts from these minor improvements are evaluated throughout this EIR, see Section 4.1 through Section 4.12, Section 4.14, and Chapters 5 and 6. No additional environmental effects would occur. Therefore, impacts related to water supplies and facilities would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain the existing marina and result in lesser development within the Marina/Miller Regional Park Special Study Area. As the option represents a lesser level of development within the Specific Plan Area, lesser impacts to water utility service and water supply would occur as a result of WBSP implementation. However, potential development within the remaining subareas of the WBSP area would be similar to the proposed WBSP, and impacts would remain **less than significant**.

Impact 4.13-2: Wastewater Treatment and Stormwater Drainage Demand and Capacity

The existing CSS experiences combined sewer outflows and overflows during heavy-rainfall. Project development would generate additional sanitary sewer flows and stormwater drainage that would increase demand. Because the CSS may be inadequate during wet weather flows and the project would increase demand, this impact would be **potentially significant.**

As noted above, the WBSP is served by the CSS with the exception of the Marina/Miller Regional Park Special Study Area, whose wastewater is collected via the CSS for sanitary sewer but stormwater is discharged directly to the Sacramento River. As noted previously, the Specific Plan Area is largely developed at this time with a variety of land uses including office, commercial, and residential. The WBSP would result in a net increase of 3,787 dwelling units and 42,500 square feet of recreational facilities, as well as a net decrease of 10,775 square feet of commercial/industrial space.

Wastewater Treatment Capacity

Sanitary sewer flows are expected to increase because of the future increased density of the residential land uses. The anticipated future development in the Specific Plan Area is expected to increase the sanitary sewer flows primarily due to the increase in the residential uses. The small increase of public/park/recreation building uses is offset by the anticipated reduction commercial/industrial uses and is considered negligible compared to the increase in residential uses for this report. The addition of over 3,787 new residences would affect the existing sewer system.

The City of Sacramento Design Standards for sewer generation rates (Section 9 – Sanitary Sewer Design Standards dated 7/24/18) contain average daily flow rates and factors for residential and non-residential uses. The recently adopted standard for sewer generation is 310 gallons per day (gpd) per equivalent single-family dwelling (ESD).

A factor of 0.75 ESD per residential unit was selected based on the nature of the high-density, urban infill residential. The factor is consistent with other recent planning studies for the Central City Specific Plan and the River District Specific Plan. This factor when multiplied by 310 gpd per ESD yields a sewer generation rate of 232.5 gpd per residential unit. Given the anticipated development of 3,787 dwellings units in the Specific Plan Area, the anticipated increase in the residential Average Dry Weather Flow (ADWF) is 0.88 mgd (= 3,787 DUs x 0.75 ESDs x 310 gpd/ESD). Based on the available capacity of the SRWWTP (as stated above), implementation of the WBSP would not necessitate the expansion of the SRWWTP to accommodate the additional wastewater flows requiring treatment.

Wastewater and Stormwater Infrastructure

Since the majority of the sites are previously developed with highly impervious surfaces (i.e.; roof tops, parking lots, sidewalks, etc.), the stormwater runoff flows from the projects are not anticipated to increase substantially with the potential development anticipated under the WBSP (refer to Section 4.9, “Hydrology and Water Quality”). However, redevelopment of properties within the Specific Plan Area with increased densities would increase the amount of wastewater requiring collection within the Specific Plan Area. In addition, existing pervious areas, especially within Alder Grove and Marina Vista may be redeveloped with less pervious surfaces and route any additional stormwater flows, including during wet weather conditions, to the CSS. As discussed under Section 4.13.2, “Environmental Setting,” the CSS is currently insufficient to serve wet weather flows and combined sewer outflows and overflows occur during heavy rainfall storm events. Because sanitary sewer flows and stormwater drainage generated by the project would increase demand and the CSS may be inadequate during wet weather flows, this impact would be **potentially significant.**

Mitigation Measures

Mitigation Measure 4.13-2a: Stormwater Drainage Improvements

The City shall manage wastewater from the WBSP such that it shall not exceed existing CSS capacity by implementing one or more of the following methods:

- Project applicants within the WBSP shall directly mitigate the impacts utilizing low impact development Best Management Practices (BMPs) per section 9.4.12 of the City's Design and Procedure Manual;
- Project applicants within the WBSP shall directly mitigate the impacts via public and/or private storage and other measures in accordance with Section 11 of the Design and Procedures Manual and the Onsite Design Manual. The setup of hydraulic models shall be in accordance with the CSS model user guide. Prior to hydraulic modeling, the Designer shall schedule a meeting with the DOU to review the Project, the modeling parameters, and discuss possible drainage solutions.;
- At the City's discretion, project applicants within the WBSP shall share in a City-sponsored project that improves the system in the area and can be upsized to incorporate mitigation of the project. A separate cost sharing agreement shall be executed for this option; or
- Per the City DOU draft Onsite Design Manual for onsite drainage storage within the CSS, the project developer provides a minimum of 7,600 cubic feet of onsite storage per acre of increased impervious area for the 100-year storage volume. The nominal capacity for discharges to the CSS is 0.18 cubic feet per second (cfs) per acre. It should be noted that these requirements are contained in a draft of the Onsite Design Manual and therefore subject to change.

Alternatively, a project developer may enter into a mitigation agreement with the DOU and pay a CSS drainage impact fee. The fee would be based on the square footage increase of impervious surface. The agreement and exact fee is subject to approval by DOU.

Mitigation Measure 4.13-2b: Sewer Flow Mitigation

The City shall require the project applicant to mitigate the increased sewer flows for development within the WBSP. The City shall require one of the following measures to mitigate the impacts:

- Project applicants within the WBSP shall pay the established CSS mitigation fee, identified in Chapter 13.08 of the City code, which requires developers to pay a development fee to recover an appropriate share of the capital costs of the CSS facilities needed to accommodate new development in the CSS area.; or
- At the City's discretion, the project applicants within the WBSP shall participate in a City-sponsored project that improves the system in the area and can be upsized to incorporate mitigation of the project. A separate cost sharing agreement shall be executed for this option.

Significance after Mitigation

Mitigation Measure 4.13-2a and 4.13-2b would require the implementation of measures to manage wastewater and drainage flows in a manner that would not exceed existing capacity of the CSS. Therefore, the CSS would be adequate to serve project demand and impacts to infrastructure capacity would be **less than significant**.

Scenario B Option

If selected, implementation of the Scenario B option would retain the existing marina and result in lesser development within the Marina/Miller Regional Park Special Study Area. As the option represents a lesser level of development within the Specific Plan Area, lesser impacts to the CSS would occur as a result of WBSP implementation. However, potential development within the remaining subareas of the WBSP area would be similar to the proposed WBSP, and impacts would remain **less than significant** with incorporation of mitigation.

Impact 4.13-3: Solid Waste Disposal Capacity and Reduction Goals

Implementation of the project would not result in a substantial increase in solid waste and would therefore not result in the need to expand or construct new solid waste facilities. In addition, the project would not conflict with any solid waste reduction goal and would comply with all state and local management and reduction statutes and regulations related to solid waste. Therefore, impacts related to solid waste would be **less than significant**.

Construction-generated Solid Waste

Construction of new uses within the Specific Plan Area would generate various construction waste including scrap lumber, scrap finishing materials, various scrap metals, and other recyclable and non-recyclable construction related wastes. Construction waste would be managed in accordance with ordinances promulgated by the SWA – in particular, in accordance with SWA's requirement that haulers achieve a 30 percent recycling rate. Recyclable construction materials, including concrete, metals, wood, and various other recyclable materials would be diverted to recycling facilities. Project construction would also comply with City requirements to divert a minimum of 50 percent of construction wastes to a certified recycling processor.

Adhering to these requirements would minimize the total volume of demolition and construction waste that would be landfilled but would not avoid disposal of all construction waste in local landfills. Construction waste would be delivered to one or more of the following facilities: Lockwood Landfill, Kiefer Landfill, L and D Landfill, Yolo County Central Landfill, or Forward Landfill. In consideration of the large volume of landfill capacity available to serve the project, sufficient landfill capacity would be available to serve projects constructed under the WBSP. Because new or expanded solid waste management or disposal facilities would not be required to accommodate project-related construction, no adverse physical environmental effects would result.

Solid Waste Generated During Project Operation

The redevelopment of the Specific Plan Area is anticipated to include an additional 3,787 residential dwelling units; a reduction of approximately 10,775 square feet of commercial/industrial building area; an increase of approximately 42,500 square feet of public/park/recreation building area; and an increase of 16.8 acres of park/open space. The proposed increase in dwelling units would generate additional amounts of solid waste above existing conditions. This increase would be partially offset by the anticipated reduction in commercial/industrial building area. However, to provide a reasonably conservative analysis, this analysis focuses on solid waste generated by residential land uses under the project. Actual solid waste generation would be lower than the below analysis, as the reduction in commercial/industrial uses is not taken into account.

Based on the City's 2017 calculated disposal rate of 6.90 pounds per person per day (CalRecycle 2017c), implementation of the WBSP would generate approximately 62,000 pounds of additional solid waste per day (based on result a projected population increase of 8,959 persons). This would result in 11,280 additional tons per year. As discussed above in Section 4.13.2, "Environmental Setting,"

approximately 50 percent of the waste is diverted from landfills through recycling programs. The project would comply with City waste diversion requirements. Therefore, the project would require landfill capacity for approximately 31,000 additional pounds (15.5 tons) of waste per day. Based on the average daily throughput of landfills serving the Sacramento area, this amount would be minimal in comparison to the region's landfill capacity and allowable daily throughput. Therefore, existing landfill facilities would be adequate to serve the project, and no additional facilities or expansion of facilities would be required.

Conclusion

Because the project would not require additional facilities or the expansion of existing solid waste facilities, would comply with management and reduction statutes and regulations related to solid waste, and would not impair solid waste reduction goals, project impacts related to solid waste would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain the existing marina and result in lesser development within the Marina/Miller Regional Park Special Study Area. As the option represents a lesser level of development within the Specific Plan Area, less solid waste would be generated by land uses within the Specific Plan Area as a result of WBSP implementation. However, potential development within the remaining subareas of the WBSP area would be similar to the proposed WBSP, and impacts would remain **less than significant**.

Impact 4.13-4: Require Construction of New/Expanded Electricity, Gas, And Telecommunication Services and Facilities.

Development proposed in the WBSP may require minor expansion of electrical, gas, and telecommunication services and facilities. However, improvements would be included within the WBSP footprint, project applicants would coordinate with utility providers, and would comply with all laws and regulations related to utility improvements. Therefore, impacts related to electrical, gas, and telecommunication improvements would be **less than significant**.

Electricity

Electrical service is provided to the Specific Plan Area by overhead and underground transmission lines from SMUD's 21kV distribution system from Station D, located approximately one-half mile north of the project area in Downton Sacramento. Utility improvements may be required dependent on load and could include a substation, sub-transmission, and transmission lines. Similar to the Mill at Broadway redevelopment, project applicants would coordinate with SMUD to ensure existing electrical facilities are sufficient and would perform any necessary improvements.

Natural Gas

PG&E has indicated they are currently making improvements to their system in accordance with a number of projects and initiatives which may negate the need for future improvements when or if the new developments are constructed. These improvements, initiated by PG&E, are subject to separate environmental review and are not included in the project. PG&E would expand/upgrade the natural gas system to extend service to the new development on a case by case basis as additional information is received on the actual development square footage and maximum and minimum gas loads. Because specific information regarding gas loads at each development site is unknown at this time, PG&E is

unable to determine which improvements would be necessary to serve the project. Individual project applicant(s) for development within the WBSP would be required to coordinate with PG&E to ensure necessary improvements are constructed and adequate service is provided.

Telecommunications

Telecommunications providers have indicated the existing system within the Specific Plan Area should be sufficient to serve the proposed projects and opportunity sites with relatively minor additions. In general, service to each of the new sites would be coordinated with the main electrical service in a common joint trench. Typically, a few 2-inch conduits would be added to the joint utility trench for service to the projects.

Conclusion

Improvements to electrical, gas, and telecommunication facilities would be located within the WBSP development footprint. The types of general construction impacts anticipated to result from implementation of the WBSP, including the construction or undergrounding of energy transmission and/or distribution lines, are comprehensively analyzed in this EIR. Further, as required by law, all utility connections would be constructed in accordance with all applicable building codes and applicable standards to ensure an adequately sized and properly constructed energy transmission and conveyance system. Any necessary connections would be constructed before occupancy and in a manner that would minimize the potential for utility service disruption of existing uses. Thus, the potential impacts resulting from the extension of utility infrastructure to serve new/redeveloped land uses within the Specific Plan Area are considered to be evaluated within the scope of this EIR's analysis. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Scenario B Option

If selected, implementation of the Scenario B option would retain the existing marina and result in lesser development within the Marina/Miller Regional Park Special Study Area. As the option represents a lesser level of development within the Specific Plan Area, lesser impacts to existing electrical, gas, and telecommunication facilities would occur as a result of WBSP implementation. However, potential development within the remaining subareas of the WBSP area would be similar to the proposed WBSP, and impacts would remain **less than significant**.

CUMULATIVE IMPACTS

Impact 4.13-5: Potential for the Implementation of the WBSP, in Combination With Other Development, to Contribute to a Significant Cumulative Impact to Utilities and Service Systems

Implementation of the WBSP, in combination with other cumulative development in the area, could increase demand for utility service in the area. However, adequate capacity would be available, either through existing facilities or improvements planned as part of the overall utility system and funded through appropriate fees on a project-by-project basis, and the contributions of individual projects within the cumulative context would be less than cumulatively considerable. Impacts would be **less than significant**.

Water Supply and Treatment

The cumulative context for water supply, treatment and conveyance includes the water service area for the City of Sacramento, including reasonably foreseeable increases in water demand as identified in the City's 2035 General Plan Master EIR and 2015 UWMP.

The 2015 UWMP does not identify specific development projects that were included in the City's water demand calculations. Instead, the UWMP proposes various categories of development within the City's service area for water supply. The UWMP considers water supply needed for future development as planned in the 2035 General Plan. Buildout within the Specific Plan Area is anticipated to be a mix of infill of vacant properties, and reuse and redevelopment of existing economically under-performing or obsolete developments. Based on a review of proposed development categories set forth in the 2035 General Plan and discussed in the 2035 General Plan MEIR, the proposed WBSP would be consistent with development anticipated in the City under the 2015 UWMP.

As discussed under Impact 4.13-1 and in the 2015 UMWP, the City has sufficient water supplies to meet anticipated demands for normal, single dry, and multiple dry years through 2045. The project-generated increase in water demand would not be substantial and existing water supplies would be adequate. No substantial infrastructure improvements would be required to serve the project, minor improvements and pipeline upgrades are evaluated throughout this EIR. Therefore, cumulative water supply, treatment, and conveyance impacts would be less than significant. The project would not be cumulatively considerable; and no mitigation measures are necessary to ensure that this cumulative impact would be **less than significant**.

Wastewater and Stormwater

The cumulative context for wastewater includes the CSS service area (i.e., Downtown Sacramento, Land Park, Curtis Park, and East Sacramento). The cumulative context for wastewater treatment includes the SRWWTP service area (i.e., City of Sacramento, Citrus Heights, Folsom, Rancho Cordova, Elk Grove, West Sacramento, and select unincorporated areas of Sacramento County).

The CSS is currently insufficient to serve wet weather flows and combined sewer outflows and overflows occur during heavy rainfall storm events. New project development could convert some of the limited remaining pervious areas to impervious surfaces. Therefore, new development in the Specific Plan Area would result in a net increase in wastewater and stormwater flows directed to the CSS. This would result in a potentially significant cumulative impact to existing facilities. The project contribution to cumulative increases in the CSS from stormwater runoff, wastewater, and construction dewatering could exacerbate the lack of capacity in the system. Therefore, the project's contribution to wastewater flow conveyance in the CSS would be cumulatively considerable.

Implementation of Mitigation Measures 4.13-2a and 4.13-2b would fully offset the project contribution to the sewer and wastewater systems by requiring that the applicant construct appropriate facilities to delay discharge of wastewater, groundwater and/or stormwater or pay the applicable fee to the City to make necessary localized or systemwide improvements. With implementation of the project-specific mitigation measures identified above, the project contribution would be less than cumulatively considerable, and impacts would be **less than significant**.

Solid Waste

The cumulative context for solid waste includes all development within the SWA's service area, including the City of Sacramento. As discussed under Impact 4.13-3, the project would generate additional solid waste during construction and operation. However, project-generated solid waste would not result in the need for new facilities or the expansion of existing facilities. In addition, the project

would comply with solid waste reduction efforts and would increase recycling efforts to divert solid waste from landfills. Existing solid waste facilities would be adequate to serve future development within the region. Therefore, cumulative solid waste impacts would be less than significant. The project would not be cumulatively considerable; and this cumulative impact would be **less than significant**.

Electricity, Natural Gas, and Telecommunication

The cumulative context for solid waste includes the service areas of utility providers, including SMUD, PG&E, AT&T, and Comcast. Implementation of the WBSP would result in increased demand and load on electricity, natural gas, and telecommunication services and facilities. However, improvements to utility facilities would be located within the project footprint and cumulative impacts related to construction of these projects are evaluated in the relevant resources section of this EIR. With inclusion of relevant mitigation measures, project-specific impacts would be reduced and incremental contributions of construction-related effects from infrastructure improvements would be less than cumulatively considerable. Thus, cumulative impacts would be **less than significant**.

Mitigation Measures

No additional mitigation is required to reduce the WBSP's contribution to cumulative impacts.

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5 OTHER CEQA SECTIONS

Section 15126 of the State CEQA Guidelines requires that all phases of a project must be considered when evaluating its impact on the environment, including planning, construction, and operation. Further, the evaluation of significant impacts must consider direct and reasonably foreseeable indirect effects of the project over the short-term and long-term.

Section 15126 of the State CEQA Guidelines also requires an EIR to identify (1) significant environmental effects of the proposed project, (2) significant environmental effects that cannot be avoided if the proposed project is implemented, (3) significant irreversible environmental changes that would result from implementation of the proposed project, (4) mitigation measures proposed to minimize significant effects, (5) growth-inducing impacts of the proposed project, and (6) alternatives to the proposed project.

The Summary and Chapter 4, Environmental Setting, Impacts, and Mitigation Measures, of this Draft EIR provide a comprehensive presentation of the environmental effects of the proposed West Broadway Specific Plan (WBSP), proposed mitigation measures, and conclusions regarding the level of significance of each impact before and after mitigation. Chapter 6, Alternatives, presents a comparative analysis of alternatives to the WBSP.

The other CEQA-required analyses described above are presented below.

5.1 GROWTH INDUCEMENT

California Environmental Quality Act (CEQA) Section 21100(b)(5) specifies that the growth-inducing impacts of a project must be addressed in an environmental impact report (EIR). Section 15126.2(d) of the State CEQA Guidelines provides the following guidance for assessing growth-inducing impacts of a project:

> Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also, discuss the characteristics of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can induce growth directly, indirectly, or both. Direct growth inducement would result if a project involved construction of new housing. Indirect growth inducement would result, for instance, if implementing a project resulted in any of the following:

- substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises);
- substantial short-term employment opportunities (e.g., construction employment) that indirectly stimulates the need for additional housing and services to support the new temporary employment demand; and/or

- removal of an obstacle to additional growth and development, such as removing a constraint on a required public utility or service (e.g., construction of a major sewer line with excess capacity through an undeveloped area).

Growth inducement itself is not an environmental effect but may foreseeably lead to environmental effects. If substantial growth inducement occurs, it can result in secondary environmental effects, such as increased demand for housing, demand for other community and public services and infrastructure capacity, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or animal habitats, conversion of agricultural and open-space land to urban uses, and other effects. These indirect or secondary effects of growth may result in significant environmental impacts. CEQA does not require that the EIR speculate unduly about the precise location and site-specific characteristics of significant, indirect effects caused by induced growth, but a good-faith effort is required to disclose what is feasible to assess. Potential secondary effects of growth could include consequences – such as conversion of open space to developed uses, increased demand on community and public services and infrastructure, increased traffic and noise, degradation of air and water quality, or degradation or loss of plant and wildlife habitat – that are the result of growth fostered by the project.

The decision to allow those projects that result from induced growth is the subject of separate discretionary processes by the lead agency responsible for considering such projects. Because the decision to allow growth is subject to separate discretionary decision making, and such decision making is itself subject to CEQA, the analysis of growth-inducing effects is not intended to determine site-specific environmental impacts and specific mitigation for the potentially induced growth. Rather, the discussion is intended to disclose the potential for environmental effects to occur more generally, such that decision makers are aware that additional environmental effects are a possibility if growth-inducing projects are approved. The decision of whether impacts do occur, their extent, and the ability to mitigate them is appropriately left to consideration by the agency responsible for approving such projects at such times as complete applications for development are submitted.

5.1.1 Growth Variables

The timing, magnitude, and location of land development and population growth in a community or region are based on various interrelated land use and economic variables. Key variables include regional economic trends, market demand for residential and nonresidential uses, land availability and cost, the availability and quality of transportation facilities and public services, proximity to employment centers, the supply and cost of housing, and regulatory policies or conditions. Because the General Plan of a community defines the location, type, and intensity of growth, it is the primary means of regulating development and growth in California.

5.1.2 Growth-Inducing Impacts of the Project

Implementation of the WBSP would foster short-term and long-term economic growth as a result of new construction, increased residential units, and some employment, primarily along Broadway and in support of residential uses and development of a mixed-use community. Construction could commence in 2020 and extend for several years. Construction activities would generate the need for construction workers during this time period and is anticipated to utilize people who are employed in the construction industry in the region. Therefore, it would be reasonable to expect that construction workers for the project would not relocate to the City for a temporary job. During operation, it is anticipated that up to 8,959 new residents would occupy the on-site residences, and new commercial/industrial uses could employ up to 1,073 workers (see Section 3.3.3 in Chapter 3, “Land Use, Population, and Housing,” for details on population and employment projections of the WBSP). Increased City resident and

employment levels are considered to result in direct growth-inducing effects. The environmental impacts associated with these direct growth-inducing effects are described throughout this EIR.

The WBSP would not remove barriers to population growth as it would not involve an increase in capacity of infrastructure (e.g., wastewater treatment capacity), nor would it require extension of City services to an area (i.e., annexation of new land by the City). The project would directly connect to existing utility infrastructure (water, wastewater, natural gas, and electricity) and would not facilitate additional development through expansion of regional facilities (e.g., water treatment plants, wastewater treatment plants, electrical substations). The environmental impacts associated with these direct growth-inducing effects are described throughout this EIR.

Vacancy rates are an indicator of housing supply and demand. Low vacancy rates influence greater upward price pressures and higher vacancy rates indicate downward price pressures. A five to six percent vacancy rate is generally considered healthy. According to the California Department of Finance (DOF), approximately 9.2 percent of City housing units were vacant in 2019 (DOF 2019). However, the vacancy rates have been improving year over year since 2013 (DOF 2019).

The WBSP is a specific plan for a mixed-use residential community, adjacent to existing residential, industrial, and commercial development. Homebuyers and employees associated with the project are anticipated to originate from other portions of the City and the Sacramento region, because of the project's proximity to the Central City, the primary job centers in the Sacramento Region. Job growth projections and perceived demands are based on assumptions related to increased population growth. Thus, although the project would increase housing and population levels within the City, the anticipated levels are in accordance with those anticipated in the City's 2035 General Plan. As a result, the WBSP would not foster growth beyond that called for in the 2035 General Plan and it would not eliminate any obstacles to growth in the City.

5.2 SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

The State CEQA Guidelines Section 15126.2(b) requires EIRs to include a discussion of the significant environmental effects that cannot be avoided if the proposed project is implemented. As documented throughout Chapter 4 of this Draft EIR, after implementation of the recommended mitigation measures, most of the impacts associated with the proposed WBSP would be reduced to a less-than-significant level. The following impacts are considered significant and unavoidable; that is, no feasible mitigation is available to reduce the project's impacts to a less-than-significant level.

- Impact 4.2-2: Result in Long-Term Operational Emissions of NO_X, ROG, PM_{10}, and $PM_{2.5}$
- Impact 4.2-6: Potential for Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Air Quality
- Impact 4.4-1: Impacts to Significant Historical Resources
- Impact 4.4-5: Potential for the Implementation of the WBSP, in Combination with Other Development, to Contribute to a Significant Cumulative Impact to Cultural Resources
- Impact 4.10-1: Operational Noise
- Impact 4.10-2: Construction Noise and Vibration
- Impact 4.6-5: Potential for implementation of the WBSP, in combination with other development, to contribute to a significant cumulative impact to noise
- Impact 4.12-1: Impacts to Vehicle Miles Traveled
- Impact 4.12-9: Cumulative Impacts to Intersection Operations

5.3 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

The State CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by the project. Specifically, the State CEQA Guidelines section 15126.2(c) states:

> 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 generation to similar uses. Also, irreversible 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.

Generally, a project would result in significant irreversible environmental changes if:

- the primary and secondary impacts would generally commit future generations to similar uses;
- the project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project;
- the project would involve a large commitment of nonrenewable resources; or
- the proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Development under the WBSP would result in the densification of uses and commitment of the City of Sacramento to higher intensity, urban development of the Specific Plan Area, irreversibly removing much of the existing industrial uses within the Specific Plan Area. The project would commit future generations to the proposed uses at the site as well as commit nonrenewable sources to the construction and operation of the site.

Resources that would be permanently and continually consumed by project implementation include water, electricity, natural gas, and fossil fuels; however, the amount and rate of consumption of these resources would not result in significant environmental impacts related to the unnecessary, inefficient, or wasteful use of resources as stated in Section 4.5, “Energy.” Notwithstanding the project benefits identified in Section 4.5, construction and operational activities related to development under the WBSP would result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas, and gasoline for automobiles and construction equipment.

With respect to operational activities, compliance with all applicable building codes, as well as project mitigation measures or project requirements, would ensure that all natural resources are conserved or recycled to the maximum extent feasible. It is also possible that new technologies or systems would emerge, or would become more cost-effective or user-friendly, that would further reduce the site’s reliance upon nonrenewable natural resources. Nonetheless, even with implementation of conservation measures, consumption of natural resources would generally increase with implementation of the project, as the Specific Plan Area is currently developed with less intense residential and commercial/industrial development with lesser demand for utilities.

6 ALTERNATIVES

6.1 INTRODUCTION

The California Code of Regulations (CCR) Section 15126.6(a) (State CEQA Guidelines) requires EIRs to describe "… a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a range of potentially feasible alternatives that will avoid or substantially lessen the significant adverse impacts of a project, and foster informed decision making and public participation. An EIR is not required to consider alternatives that are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason." This section of the State CEQA Guidelines also provides guidance regarding what the alternatives analysis should consider. Subsection (b) further states the purpose of the alternatives analysis is as follows:

> Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code [PRC] Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

The State CEQA Guidelines require that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but in less detail than the significant effects of the project as proposed (CCR Section 15126.6[d]).

The State CEQA Guidelines further require that the "no project" alternative be considered (CCR Section 15126.6[e]). The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. If the no project alternative is the environmentally superior alternative, CEQA requires that the EIR "…shall also identify an environmentally superior alternative among the other alternatives." (CCR Section 15126[e][2]).

In defining "feasibility" (e.g., "… feasibly attain most of the basic objectives of the project …"), CCR Section 15126.6(f) (1) states, in part:

> Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

In determining what alternatives should be considered in the EIR, it is important to consider the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency's decision-making body, here the City of Sacramento City Council (See PRC Sections 21081.5, 21081[a] [3].)

6.2 CONSIDERATIONS FOR SELECTION OF ALTERNATIVES

6.2.1 Attainment of Project Objectives

As noted above and in Section 15126.6(a) of the State CEQA Guidelines, an EIR's evaluation of alternatives must evaluate a reasonable range of alternatives that would attain *most of the basic project objectives* (emphasis added). As noted in Chapter 2, "Project Description," the project objectives for the West Broadway Specific Plan (WBSP) are to:

- Accommodate growth that increases the long-term economic sustainability, equity and well-being, and protection of important environmental resources in the Specific Plan Area.
- Provide for the orderly and systematic integration of land uses within the WBSP area that maximizes opportunities afforded by the area's proximity to the Sacramento River and Downtown Sacramento.
- Facilitate new mixed-use development, reuse, and redevelopment within the Industrial Subarea lands along 1st Avenue and 5th Street.
- Promote new infill residential development and redevelopment within the Specific Plan Area that supports a mixed-income community and a variety of housing choices, including market rate and affordable housing options for low-income, very low-income, and extremely low-income households.
- Promote neighborhood-serving uses, including a grocery store and venue(s) for after- school programs and activities for area youth.
- Enhance public recreation, use, and waterfront access at Miller Regional Park.
- Enhance the West Broadway corridor as a future gateway and bridge connection between the cities of Sacramento and West Sacramento.
- Leverage the planned improvements of the Broadway Complete Streets Plan to support economic growth and mixed-use development along West Broadway.
- Provide a gridded street network that improves the connection and access within the Specific Plan Area to surrounding uses and neighborhoods.
- Enhance bike and pedestrian travel ways through the Specific Plan Area to schools, public facilities, and neighborhood amenities.
- Support and promote local businesses in the Specific Plan Area.

6.2.2 Significant Environmental Impacts of the Project

Sections 4.1 through 4.13 of this Draft EIR address the environmental impacts of implementation of the proposed WBSP. Potentially feasible alternatives were developed with consideration of avoiding or lessening the significant, and potentially significant, adverse impacts of implementation of the WBSP, as identified in Chapter 3 of this Draft EIR and summarized in the Executive Summary Chapter of this EIR.

6.3 ALTERNATIVES CONSIDERED BUT NOT EVALUATED FURTHER

As described above, State CEQA Guidelines Section 15126.6(c) provides that the range of potential alternatives for the project shall include those that could feasibly accomplish most of the basic objectives of the project, and could avoid or substantially lessen one or more of the significant effects. Alternatives that fail to meet the fundamental project purpose need not be addressed in detail in an EIR.

In determining what alternatives should be considered in the EIR, it is important to acknowledge the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by lead agency decision-maker(s). (See Pub. Resources Code, § 21081(a)(3).) At the time of action on the project, the decision-maker(s) may consider evidence beyond that found in this EIR in addressing such determinations. The decision-maker(s), for example, may conclude that a particular alternative is infeasible (i.e., undesirable) from a policy standpoint, and may reject an alternative on that basis provided that the decision-maker(s) adopts a finding, supported by substantial evidence, to that effect, and provided that such a finding reflects a reasonable balancing of the relevant economic, environmental, social, and other considerations supported by substantial evidence

The EIR should also identify any alternatives that were considered by the lead agency, but were rejected during the planning or scoping process and briefly explain the reasons underlying the lead agency's determination.

The following alternatives were considered by the City of Sacramento but are not evaluated further in this Draft EIR.

6.3.1 No Project/No Development Alternative

The no project/no development alternative would prevent future growth by prohibiting new development within the Specific Plan Area, establishing a de facto moratorium on development. This alternative was dismissed from consideration because it would be inconsistent with State CEQA Guidelines section 15126.6(e)(3)(A), which states that "When the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the 'no project' alternative will be the continuation of the existing plan, policy or operation into the future." The existing plan, in this case, is the City's 2035 General Plan. More importantly, this alternative was dismissed from further consideration because it would fail to meet any of the basic objectives of the WBSP, including to encourage future growth in the City within and close to existing urbanized areas. Implementation of the No Project/No Development Alternative would prohibit development of existing vacant or underutilized sites within the Specific Plan Area, which would direct growth to areas likely further from the downtown area. As required by State CEQA Guidelines section 15126.6(f), an EIR need examine in detail only the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the project.

Because this alternative would fail to meet the all of the basic objectives of the WBSP and based on the guidance provided by State CEQA Guidelines section 15126.6(e)(3)(A), it was dismissed from further consideration.

6.3.2 No Project/Existing Zoning Alternative

The no project/existing zoning alternative would allow for future growth and redevelopment within the Specific Plan Area consistent with existing zoning designations. This alternative was also dismissed from consideration because, similar to the No Project/No Development Alternative, it would be inconsistent with State CEQA Guidelines section 15126.6(e)(3)(A), which states that "When the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the 'no project' alternative will be the continuation of the existing plan, policy or operation into the future." The existing plan, in this case, is the City's 2035 General Plan, which does not include industrial uses within the Specific Plan Area. More importantly, this alternative, if it resulted in further and potentially more intense industrial development, could result in greater impacts in terms of air quality, noise, and other issue areas, as a result of greater industrial activities proximate to residential uses. As required by State CEQA Guidelines section 15126.6(f), an EIR need examine in detail only the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the project.

Because this alternative would fail to meet the all of the basic objectives of the WBSP and is inconsistent with the guidance provided by State CEQA Guidelines section 15126.6(e)(3)(A), it was dismissed from further consideration.

6.3.3 Higher Density Development Alternative

The higher density development alternative would implement policies directing development of a substantially higher number of residential units. The larger residential growth proposed by this Alternative would exceed the growth assumptions of the 2035 General Plan and the SACOG 2016 MTP/SCS, and, based on the likely development areas, would occur along the periphery of the plan area (along Broadway, within Alder Grove, and along 5th Street). For several reasons this alternative was eliminated from further consideration. Based on the type and height of existing and new development within the plan area (e.g., The Mill), higher density development would likely result in greater height and less varied housing types, one of the basic project objectives of the WBSP. It would also likely result in a greater potential for land use compatibility issues with the lower density residential uses located to the south and southeast of the plan area. In addition, this alternative would tend to exacerbate many, if not all, of the environmental impacts disclosed for the proposed WBSP, including all construction-related impacts, criteria and greenhouse gas emissions, transportation, water demand, and related effects due to the greater level of development. Thus, this alternative would not be consistent with State CEQA Guidelines section 15126.6(a) which states that an alternative in an EIR must "avoid or substantially lessen any of the significant effects of the project." Because this alternative would exacerbate environmental impacts, it was dismissed from further consideration.

6.4 ALTERNATIVES SELECTED FOR DETAILED ANALYSIS

Three alternatives have been selected for detailed evaluation in this chapter. In addition, Scenario B, as evaluated in Chapter 4, also represents an alternative to the proposed WBSP, although it is evaluated within the context and adjacent to the analysis of the proposed WBSP as it represents a partial modification of the proposed land use plan. The following alternatives are evaluated below as part of this chapter of the Draft EIR.

- **Alternative 1: No Project–Existing General Plan Alternative** assumes that the Specific Plan Area would be subject to infill and redevelopment consistent with the land use designations and allowable uses identified in the existing 2035 General Plan.
- **Alternative 2: Historic Preservation Alternative** assumes that historic structures within the Specific Plan Area would be preserved and retained, with some modernization. As part of this alternative and consistent with the goal of historic preservation, planned roadway network improvements within Alder Grove and Marina Vista, including the realignment of Muir Way, would not occur.
- **Alternative 3: Lesser Density Development Alternative** assumes that the entire Specific Plan Area with the exception of Miller Regional Park and the existing school properties would develop in a manner consistent with the current densities (e.g., residential units per acre) of the Mill at Broadway. In other words, approximately 30 units per acre of residential units and 1,000 sf per acre of retail commercial would be anticipated under this alternative, which would result in a potential net change of approximately 2,700 new residential units and a decrease in commercial/industrial building area of 313,000 sf.

Further details on these alternatives, and an evaluation of environmental effects relative to the proposed project, are provided below.

6.4.1 Alternative 1: No Project–Existing General Plan Alternative

State CEQA Guidelines Section 15126.6(e)(1) requires that the no project alternative be described and analyzed "to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project." The no project analysis is required to discuss "the existing conditions at the time the notice of preparation is published…as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" (Section 15126.6[e][2]).

Under this alternative, the City would not adopt a long-term plan to guide the development of the Specific Plan Area and maximize opportunities afforded by the area's proximity to the Sacramento River and the downtown area. Existing structures would be maintained in their current condition and would only be modified in response to specific developments proposed by individual landowners within the Specific Plan Area. Further, compared to The WBSP, this alternative would likely decrease the maximum development potential within the Specific Plan Area compared to the level of allowable development that could occur under the WBSP. This alternative would not meet any of the objectives identified in Section 6.2.1, "Attainment of Project Objectives."

LAND USE, POPULATION, AND HOUSING

The No Project Alternative would not result in conflicts with existing residential land uses surrounding the project area because the relationship between the land uses within the Specific Plan Area and the residential neighborhoods would remain unchanged. The project area would remain a mix of residential, commercial, and industrial uses with some recreational opportunities, especially within the Marina/Miller Regional Park Special Study Area. This alternative would not result in any conflicts with existing land uses or divide an established community. No conflicts with plans adopted for the purpose of avoiding or mitigating a significant environmental impact would occur. The No Project Alternative would not generate substantial new growth of residents or employment, and would not remove any housing. Overall, potential changes in land use, population, and housing within the Specific Plan Area would be less under this alternative than those that would occur with implementation of the WBSP.

AESTHETICS, LIGHT, AND GLARE

The No Project Alternative would provide for the continued use of the project area with potential new land uses that would be of similar scale and massing to the existing development within the Specific Plan Area. As a result, the Specific Plan Area would retain the visual character and lighting conditions that currently exist within the area. While impacts to visual character and features within the Specific Plan Area and surrounding areas would be less than significant, this impact would be reduced under the No Project Alternative due to the lesser level of development that would likely occur. However, this alternative would also not realize the potential beneficial visual effects associated with redevelopment of the existing tank farms along the Sacramento River and within the Specific Plan Area. Nonetheless, the visual and lighting impacts of the No Project Alternative would be less than those that would occur with implementation of the WBSP.

AIR QUALITY

The No Project Alternative would generate lower air pollutant emissions from construction activities (particulate matter and ozone precursors) and from operation (ozone precursors) as result of its likely reduced potential development. However, this alternative may not would avoid project significant air quality impacts, depending on the level of development proposed by individual applicants. Further, development consistent with existing zoning and land use designations may result in the further development of industrial or other toxic air contaminant (TAC)- and potential odor-producing uses. As a result, potential impacts related to TAC and potential odor generation could be greater under this alternative. Therefore, potentially significant construction, operational, and cumulative air quality impacts identified for the could occur under this alternative, and mitigation would likely be required for this alternative. The air quality impacts of the No Project Alternative could be greater than those that would occur with implementation of the WBSP, although a specific conclusion cannot be drawn given the uncertainty surrounding future development.

BIOLOGICAL RESOURCES

Under this alternative, activity within the Specific Plan Area would be limited to the development of individual parcels, consistent with existing land use designations and zoning. No development within the Marina/Miller Regional Park Special Study Area would be anticipated under this alternative. As a result, many of the potential impacts to sensitive species and habitat would not occur with implementation of this alternative. This would retain a majority of the riparian habitat and protected trees within the Specific Plan Area that may support special-status plant and wildlife species known to occur in the region. While mitigation is available to reduce project biological resource impacts to a less-than-significant level, these impacts would be substantially reduced under the No Project Alternative. Therefore, the biological resource impacts of the No Project Alternative would be less than those that would occur with implementation of the WBSP.

CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

Under the No Project Alternative, development of the Specific Plan Area would occur on a project-by-project basis, consistent with existing land use and zoning designations. However, this alternative would allow for the potential reuse or demolition of existing structures within the Specific Plan Area, similar to the WBSP. As a result, potential impacts to historic structures would remain. Due to the likely lesser level of development that would occur under this alternative, however, fewer historic structures may be affected. Nonetheless, impacts to historic structures would remain significant and unavoidable

similar to the WBSP. With respect to archaeological and tribal cultural resources, the overall level of impact could be less than the WBSP under this alternative due to the likely lesser level of development and overall ground disturbance. However, the potential to affect unknown resources would remain and similar mitigation would likely be required to reduce impacts to less-than-significant levels for archaeological and tribal cultural resources. Overall, impacts would be less than those that would occur with implementation of the WBSP.

ENERGY

Development under this alternative would adhere to the City's 2035 General Plan policies related to energy consumption reduction, as well as the City's Climate Action Plan. Similar to the WBSP, development under this alternative would result in the consumption of additional materials and energy supplies (including fuel), however development within the Specific Plan Area under this alternative would not require atypical construction-related energy demands, similar to the WBSP. Further, any new development under this alternative would adhere to California Energy Code standards such that development would not be anticipated to result in the wasteful, inefficient, or unnecessary consumption of energy resources during operation, and impacts would be less than significant. However, this alternative would not include the additional actions and guidelines of the WBSP that would further increase the efficiency of future uses within the Specific Plan Area such that impacts would likely be slightly greater than the WBSP.

GEOLOGY AND SOILS

The No Project Alternative would likely require less soil movement due to the lesser level of development anticipated under this alternative compared to the WBSP. However, similar to the WBSP, this alternative would result in less-than-significant impacts related to on-site soil conditions and the potential for soil hazards, as well as the potential for disturbance of undiscovered paleontological resources. Although this alternative would likely result in lesser site disturbance, impacts would be similar due to similar soils conditions.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

The No Project Alternative would generate lower greenhouse gas (GHG) emissions from construction activities and from operation as result of the likely reduced development potential. The GHG emission impacts that would contribute to climate change identified for the WBSP would be less under this alternative, and due to City 2035 General Plan policy implementation, as well as the policies and actions of the City's Climate Action Plan, no mitigation would be required for this alternative. Overall, the GHG emission impacts of the No Project Alternative would be less than those that would occur with implementation of the WBSP but would also be less than significant.

HAZARDS AND HAZARDOUS MATERIALS

Under the WBSP and the No Project Alternative, construction activities within the Specific Plan Area would likely involve the transport, use, and storage of hazardous materials; and due to on-site conditions and historic uses within the Specific Plan Area, there could be a release of hazardous materials from a site of known or potential contamination. In addition, disruption of area roadways during construction may hinder traffic flow and affect emergency response. However, feasible mitigation measures are available to reduce these impacts to a less-than-significant level. Similar types of impacts would occur under this alternative although to a lesser degree as a result of the likely reduced

construction effort. However and as noted above, implementation of this alternative could allow for the redevelopment of on-site uses with certain industrial/manufacturing uses that could involve additional hazardous materials that would likely not be present with implementation of the WBSP. It is assumed that any and all materials would be stored in accordance with applicable regulations, but depending on the level of activity, the potential for release of a hazardous material would be higher under this alternative. Therefore, the potential hazard impacts of the No Project Alternative would be greater than those that would occur with the WBSP, as a result of the potential increase in industrial/manufacturing uses that are allowed under the current land use and zoning designations.

HYDROLOGY AND WATER QUALITY

Earth-moving activities associated with construction of allowable uses under the WBSP and this alternative have the potential to affect hydrology and water quality within the Specific Plan Area. The types of impacts that could occur from development under the WBSP and this alternative include: adverse effects on water quality, reduced groundwater recharge, alterations to existing drainage systems, and effects on the 100-year floodplain. Existing regulations and permitting requirements, such as the City's Stormwater Quality Improvement Plan, NPDES permit conditions, the City's Stormwater Management and Discharge Control Code, City Grading Ordinance, and a project-specific dewatering discharge permit would reduce potentially significant impacts to a less-than-significant level. In addition, development of additional uses under this alternative would be required to comply with existing regulations that would ensure that potential operational impacts would be less than significant, similar to that of the WBSP. Although this alternative would likely involve lesser development within the Specific Plan Area, compliance with regulations and permitting requirements would ensure that impacts would be similar under this alternative to those that would occur with implementation of the WBSP.

NOISE AND VIBRATION

Earth-moving activities within the Specific Plan Area (e.g., demolition, grading, excavation) under both this alternative and the WBSP would result in noise and vibration impacts. Feasible mitigation measures are available to reduce these impacts to a less-than-significant level, as described in Section 4.10, "Noise and Vibration." Compared to the WBSP, there would be less construction-generated noise or vibration under Alternative 1 due to less overall construction-related activities. Additionally, under this alternative, there would be less potential noise associated with special events within the Marina/Miller Regional Park Special Study Area.

PUBLIC SERVICES AND RECREATION

Alternative 1 would result in an increase in demand for public services and recreation, albeit less than that anticipated with implementation of the WBSP, due to an anticipated lesser level of development. Similar to the WBSP, Alternative 1 would not expand the service area for police, fire, schools, or other public services in the area. Under the WBSP, impacts were determined to be less than significant because each development would be required to contribute appropriate fees, including fees related to the establishment and maintenance of park/recreation facilities within the City. Alternative 1 would also result in less-than-significant public services and recreation impacts similar to the WBSP.

TRANSPORTATION AND CIRCULATION

Under Alternative 1, additional vehicles trips associated with additional development would occur within the Specific Plan Area, however, depending on the level of development proposed, project-specific mitigation may be required. Further, under the WBSP, several network improvements would be implemented as part of the plan and funded through the WBSP financing plan, including the realignment of Muir Way. Without such improvements as part of Alternative 1, additional mitigation would likely be required within the Specific Plan Area, as well as potentially greater impacts to circulation. As a result, overall impacts on intersections, freeways, or local neighborhood traffic could be greater under this alternative than the WBSP due to the lack of planned circulation improvements inherent to Alternative 1.

UTILITIES AND SERVICE SYSTEMS

Under Alternative 1, there would be potentially less additional demand on utilities or requirements to alter or expand infrastructure compared to the WBSP due to the lesser level of development and because population levels would be potentially lower within the Specific Plan Area. In general, impacts would be similar under this alternative and would be less than significant.

6.4.2 Alternative 2: Historic Preservation Alternative

Under this alternative, historic structures within the Specific Plan Area would be preserved and retained, with some modernization. As the majority of on-site, potentially/designated historic structures are predominantly low-rise (i.e., 1-2 stories) development, the overall development potential of the Specific Plan Area would be less than that of the WBSP. As part of this alternative and consistent with the goal of historic preservation, planned roadway network improvements within Alder Grove and Marina Vista, including the realignment of Muir Way, would not occur.

LAND USE, POPULATION, AND HOUSING

Alternative 2 would not result in conflicts with existing residential land uses surrounding the Specific Plan Area because the relationship between the majority of land uses within the Specific Plan Area, especially along its interface with the residential neighborhoods to the south and east, would remain unchanged. The Specific Plan Area would likely retain a mix of residential, commercial, and industrial uses with some recreational opportunities, especially within the Marina/Miller Regional Park Special Study Area, however, some industrial uses could be converted to residential mixed use developments similar to the City's efforts to redevelop along R Street to the northeast. This alternative would not result in any conflicts with existing land uses or divide an established community. No conflicts with plans adopted for the purpose of avoiding or mitigating a significant environmental impact would occur. Due to the limitations on growth that would be associated with reuse of existing structures, implementation of this alternative would likely not generate substantial new growth of residents or employment, and would not remove any housing. Overall, land use, population, and housing changes under this alternative would be the same as those that would occur with implementation of the WBSP.

AESTHETICS, LIGHT, AND GLARE

Alternative 2 would involve the reuse of existing historic structures within the Specific Plan Area, especially Marina Vista and Alder Grove. As a result, potential new land uses would likely be of similar scale and massing to the existing development within the Specific Plan Area. As a result, the Specific

Plan Area would retain much of the existing visual character and lighting conditions within the area. While impacts to visual character and features within the Specific Plan Area and surrounding areas would be less than significant, this impact would be reduced under this alternative due to the lesser level of new development and preservation of existing low-rise development (e.g., Marina Vista and Alder Grove) that would likely occur. Therefore, the visual and lighting impacts of this alternative would be less than those that would occur with the WBSP.

AIR QUALITY

Alternative 2 would generate lower air pollutant emissions from construction activities (particulate matter and ozone precursors) and from operation (ozone precursors) as result of its likely reduced potential development. Further, reuse of existing historic structures would likely require the use of less diesel-powered equipment which would also reduce construction-related emissions. However, this alternative may not avoid the potentially significant air quality impacts of the WBSP, depending on the level of development proposed by individual applicants, especially within parcels that do not contain designated or potentially historic structures. Therefore, the significant construction, operational, and cumulative air quality impacts identified for the WBSP may also occur under this alternative, and mitigation would likely be required for this alternative. However, due to the lesser level of overall development that would be likely under this alternative, air quality impacts would be less than those that would occur with implementation of the WBSP.

BIOLOGICAL RESOURCES

Under this alternative, activity within the Specific Plan Area would be limited to the development of individual parcels, consistent with existing land use designations and zoning. No development within the Marina/Miller Regional Park Special Study Area would be anticipated under this alternative. As a result, many of the potential impacts to sensitive species and habitat would not occur with implementation of this alternative. This would retain a majority of the riparian habitat and protected trees within the Specific Plan Area that may support special-status plant and wildlife species known to occur in the region. While mitigation is available to reduce project biological resource impacts to a less-than-significant level, these impacts would be substantially reduced under this alternative. Therefore, the biological resource impacts of the Alternative 2 would be less than those that would occur with the WBSP.

CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

Under Alternative 2, development of the Specific Plan Area would focus on reuse and preservation of existing historic (potential and designated) structures. As a result, less overall ground disturbance would be anticipated, as more of the existing structures within the Specific Plan Area would be retained, and lesser impacts to archaeological and tribal cultural resources would potentially occur. Further, as this alternative would be intended to maximize preservation of older structures (designated and eligible historic structures), potential impacts to historic resources, including potential loss of integrity of the New Helvetia Historic District (if less than 60% of the on-site structures are able to be retained), would also be less under this alternative. As a result, potential impacts to cultural and tribal cultural resources would be less than significant with mitigation under this alternative.

ENERGY

Development under this alternative would adhere to the City's 2035 General Plan policies related to energy consumption reduction, as well as the City's Climate Action Plan. Similar to the WBSP, development under this alternative would result in the consumption of additional materials and energy supplies (including fuel), however development within the Specific Plan Area under this alternative would not require atypical construction-related energy demands, similar to the WBSP. Further, any new development under this alternative would adhere to California Energy Code standards such that development would not be anticipated to result in the wasteful, inefficient, or unnecessary consumption of energy resources during operation, and impacts would be less than significant. However, this alternative would not include the additional actions and guidelines of the WBSP that would further increase the efficiency of future uses within the Specific Plan Area, in addition to the reuse of existing structures which could reduce the level of energy efficiency that could be achieved. However, due to the overall lesser intensity of development that would likely occur, impacts would likely be slightly less than the WBSP.

GEOLOGY AND SOILS

Alternative 2 would likely require less soil movement due to the lesser level of development anticipated under this alternative compared to the WBSP. However, similar to the WBSP, this alternative would result in less-than-significant impacts related to on-site soil conditions and the potential for soil hazards, as well as the potential for disturbance of undiscovered paleontological resources. Although this alternative would likely result in lesser site disturbance due to lesser excavation and ground disturbance associated with new building development, impacts would be similar due to similar soils conditions.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Alternative 2 would generate lower greenhouse gas (GHG) emissions from construction activities and from operation as result of the likely reduced development potential, associated with the retention of existing, low-rise structures within the Specific Plan Area. The GHG emission impacts that would contribute to climate change identified for the WBSP would be less under this alternative, and due to City 2035 General Plan policy implementation, as well as the policies and actions of the City's Climate Action Plan, no mitigation would be required for this alternative. Overall, the GHG emission impacts of this alternative would be less than those that would occur with implementation of the WBSP but would also be less than significant.

HAZARDS AND HAZARDOUS MATERIALS

Under this alternative, construction activities within the Specific Plan Area would likely involve the transport, use, and storage of hazardous materials; and due to on-site conditions and historic uses within the Specific Plan Area, there could be a release of hazardous materials from a site of known or potential contamination. In addition, disruption of area roadways during construction may hinder traffic flow and affect emergency response. However, feasible mitigation measures are available to reduce these impacts to a less-than-significant level. Similar types of impacts would occur under this alternative although to a lesser degree as a result of the likely reduced construction effort. Similar to the WBSP, implementation of this alternative would allow for the redevelopment of on-site uses with certain residential and mixed-use facilities that would involve the use of minimally hazardous materials. It is assumed that any and all materials would be stored in accordance with applicable regulations, similar

to the WBSP, and that the potential for release of a hazardous material would be similar to the WBSP under this alternative. Therefore, the potential hazard impacts of the Alternative 2 would be the same as those that would occur with the WBSP.

HYDROLOGY AND WATER QUALITY

Earth-moving activities associated with construction of allowable uses under the WBSP and this alternative have the potential to affect hydrology and water quality within the Specific Plan Area. The types of impacts that could occur from development under the WBSP and this alternative include: adverse effects on water quality, reduced groundwater recharge, alterations to existing drainage systems, and effects on the 100-year floodplain. Existing regulations and permitting requirements, such as the City's Stormwater Quality Improvement Plan, NPDES permit conditions, the City's Stormwater Management and Discharge Control Code, City Grading Ordinance, and a project-specific dewatering discharge permit would reduce potentially significant impacts to a less-than-significant level. In addition, development of additional uses under this alternative would be required to comply with existing regulations that would ensure that potential operational impacts would be less than significant, similar to that of the WBSP.

NOISE AND VIBRATION

Earth-moving activities within the Specific Plan Area (e.g., demolition, grading, excavation) under both this alternative and the WBSP would result in noise and vibration impacts. Feasible mitigation measures are available to reduce these impacts to a less-than-significant level, as described in Section 4.10, "Noise and Vibration." Compared to the WBSP, there would be less construction-generated noise or vibration under Alternative 2 due to less overall construction-related activities. Further, due to the reuse of existing structures that would occur under this alternative, the potential need for heavy construction equipment would also be less, as much of the on-site construction activities would involve the renovation of existing interiors and not require larger diesel-powered equipment, such as graders and scrapers. Additionally, under this alternative, there would be less potential noise associated with special events within the Marina/Miller Regional Park Special Study Area.

PUBLIC SERVICES AND RECREATION

Similar to Alternative 1, this alternative would result in an incremental increase in demand for public services and recreation (less than that of the WBSP) due to an anticipated lesser level of development as a result of the renovation and reuse of existing low-rise structures within the Specific Plan Area. Under the WBSP, impacts were determined to be less than significant because each development would be required to contribute appropriate fees, including fees related to the establishment and maintenance of park/recreation facilities within the City. Alternative 2 would also result in less-than-significant public services and recreation impacts similar to the WBSP but to a lesser degree.

TRANSPORTATION AND CIRCULATION

Under Alternative 2, there would be some additional vehicles trips associated with additional development within the Specific Plan Area, however, depending on the level of development proposed, project-specific mitigation may be required. Further, under the WBSP, several network improvements would be implemented as part of the plan and funded through the WBSP financing plan, including the realignment of Muir Way. Without such improvements as part of Alternative 2, additional mitigation would likely be required within the Specific Plan Area, as well as potentially greater impacts to

circulation. For example, the additional traffic associated with new uses under this alternative would not benefit from the realignment of Muir Way to align with 8th Street, which would not improve the overall north-south and east west movements through the area. As a result, overall impacts on intersections, freeways, or local neighborhood traffic could be greater under this alternative than the WBSP due to the lack of planned circulation improvements inherent to Alternative 2.

UTILITIES AND SERVICE SYSTEMS

Under Alternative 2, less additional demand on utilities or requirements to alter or expand infrastructure compared to the WBSP would occur due to the lesser level of development and because population levels would be potentially lower within the Specific Plan Area. In general, impacts would be less under this alternative but remain less than significant.

6.4.3 Alternative 3: Lesser Density Development Alternative

Under this alternative, the entire Specific Plan Area with the exception of the Marina/Miller Regional Park Special Study Area and the existing school properties would develop in a manner consistent with the current densities (e.g., residential units per acre) of the Mill at Broadway. In other words, approximately 30 units per acre of residential units and 1,000 sf per acre of retail commercial would be anticipated under this alternative, which would result in a potential net change of approximately 2,700 new residential units and a decrease in commercial/industrial building area of 313,000 sf.

LAND USE, POPULATION, AND HOUSING

Similar to Alternative 2, Alternative 3 would reduce the overall development potential of the Specific Plan Area compared to the WBSP. Due to the expansion of residential land uses within the Specific Plan Area, no conflicts with existing residential land uses surrounding the Specific Plan Area are anticipated. Under this alternative, the Specific Plan Area would experience a greater reduction in commercial/industrial space and a lesser increase in residential uses. Some recreational opportunities would be provided, although they would be tied to the residential development and no recreational improvements within the Marina/Miller Regional Park Special Study Area would occur. As a result, this alternative would largely involve an extension of the existing residential community to the south and would not result in any conflicts with existing land uses or divide an established community. No conflicts with plans adopted for the purpose of avoiding or mitigating a significant environmental impact would occur. Implementation of Alternative 3 would likely not generate substantial new employment growth and would not result in a net decrease in housing, similar to the WBSP. As a result, impacts would be similar to the WBSP under this alternative.

AESTHETICS, LIGHT, AND GLARE

Under this alternative, the overall development potential of the Specific Plan Area would be reduced. Some redevelopment of existing structures would occur, however, the scale and massing of new structures would likely be less than that of the WBSP and closer to the existing Mill at Broadway development. While impacts to visual character and features within the Specific Plan Area and surrounding areas would be less than significant under the WBSP, this impact would be reduced under this alternative due to the lesser level of new development that would likely occur. However, under this alternative, the existing tank farm within the West Broadway Gateway subarea would redevelop with low- to mid-rise residential/mixed-use development, which would be considered a beneficial visual impact compared to the existing tank farm. Therefore, although the visual and lighting impacts of

Alternative 2 would be less than those that would occur with the WBSP, Alternative 2 would result in less-than-significant visual impacts, as well as a beneficial impact along the Sacramento River.

AIR QUALITY

Due to the lesser overall level of development that would occur, Alternative 3 would generate lower air pollutant emissions from construction activities (particulate matter and ozone precursors) and from operation (ozone precursors) as result of its likely reduced potential development. However, this alternative may not avoid project significant air quality impacts, depending on the level and intensity of development proposed by individual applicants. Therefore, the significant construction, operational, and cumulative air quality impacts identified for the WBSP may also occur under this alternative, and mitigation would likely be required for this alternative. However, due to the lesser level of overall development that would be likely under this alternative, air quality impacts would be less than those that would occur with implementation of the WBSP.

BIOLOGICAL RESOURCES

Under this alternative, future development would occur primarily within the subareas east of I-5. No development within the Marina/Miller Regional Park Special Study Area, which contains the majority of sensitive habitat and potential for sensitive species, would be anticipated under this alternative. As a result, many of the potential impacts to sensitive species and habitat would not occur with implementation of this alternative. This would retain a majority of the riparian habitat and protected trees within the Specific Plan Area that may support special-status plant and wildlife species known to occur in the region. While mitigation is available to reduce project biological resource impacts to a less-than-significant level, these impacts would be substantially reduced under this alternative. Therefore, the biological resource impacts of Alternative 3 would be less than those that would occur with the WBSP.

CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

Under Alternative 3, development of the Specific Plan Area would be reduced compared to the WBSP and would involve a greater reduction in commercial/industrial space. Although less overall development would occur, the overall land disturbance that may be required with implementation of this alternative would be similar to the WBSP, which would result in similar impacts to archaeological and tribal cultural resources. Further, as this alternative would not focus on preservation of older structures (designated and eligible historic structures) like Alternative 2 and could involve the removal of existing structures similar to the WBSP, potential impacts to historic resources would also be similar to the WBSP under this alternative.

ENERGY

Similar to the WBSP, development under this alternative would adhere to the City's 2035 General Plan policies related to energy consumption reduction, as well as the City's Climate Action Plan. Future development would consume additional building materials and energy supplies (including fuel). Any new development under this alternative would adhere to California Energy Code standards such that development would not be anticipated to result in the wasteful, inefficient, or unnecessary consumption of energy resources during operation, and impacts would be less than significant. Similar to the WBSP, this alternative would likely include additional actions and guidelines similar to that of the WBSP that would further increase the efficiency of future uses within the Specific Plan Area, however, the overall level of energy consumed under this alternative would be less than the WBSP.

GEOLOGY AND SOILS

Alternative 3 would likely require similar soil movement due to the development of new uses throughout the Specific Plan Area. This alternative would result in less-than-significant impacts related to on-site soil conditions and the potential for soil hazards, as well as the potential for disturbance of undiscovered paleontological resources. Overall, impacts would be similar to the WBSP.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Alternative 3 would generate fewer greenhouse gas (GHG) emissions from construction activities and from operation as result of the reduce level of development within the Specific Plan Area. The GHG emission impacts that would contribute to climate change identified for the WBSP would be less under this alternative, however, similar mitigation to the WBSP, in addition to implementation of City 2035 General Plan policy and the policies and actions of the City's Climate Action Plan, mitigation would likely be required for this alternative. Overall, the GHG emission impacts of Alternative 3 would be less than those that would occur with implementation of the WBSP but would also be less than significant.

HAZARDS AND HAZARDOUS MATERIALS

Under this alternative, construction activities within the Specific Plan Area would likely involve the transport, use, and storage of hazardous materials; and due to on-site conditions and historic uses within the Specific Plan Area, there could be a release of hazardous materials from a site of known or potential contamination. In addition, disruption of area roadways during construction may hinder traffic flow and affect emergency response. However, feasible mitigation measures are available to reduce these impacts to a less-than-significant level. Similar types of impacts would occur under this alternative although to a lesser degree as a result of the likely reduced construction effort. Similar to the WBSP, it is assumed that any and all materials associated with new uses under this alternative would be stored in accordance with applicable regulations and that the potential for release of a hazardous material would be similar to the WBSP under this alternative. Therefore, the potential hazard impacts of the Alternative 3 would be the same as those that would occur with the WBSP.

HYDROLOGY AND WATER QUALITY

Earth-moving activities associated with construction of allowable uses under the WBSP and this alternative have the potential to affect hydrology and water quality within the Specific Plan Area. The types of impacts that could occur from development under the WBSP and this alternative include: adverse effects on water quality, reduced groundwater recharge, alterations to existing drainage systems, and effects on the 100-year floodplain. Existing regulations and permitting requirements, such as the City's Stormwater Quality Improvement Plan, NPDES permit conditions, the City's Stormwater Management and Discharge Control Code, City Grading Ordinance, and a project-specific dewatering discharge permit would reduce potential impacts to a less-than-significant level. In addition, development of additional uses under this alternative would be required to comply with existing regulations that would ensure that potential operational impacts would be less than significant, similar to that of the WBSP.

NOISE AND VIBRATION

Earth-moving activities within the Specific Plan Area (e.g., demolition, grading, excavation) under both this alternative and the WBSP would result in noise and vibration impacts. Feasible mitigation measures are available to reduce these impacts to a less-than-significant level, as described in Section 4.10, “Noise and Vibration.” Compared to the WBSP, there would be less construction-generated noise or vibration under Alternative 3 due to less overall construction-related activities. Additionally, under this alternative, there would be less potential noise associated with special events within the Marina/Miller Regional Park Special Study Area, and due to the lesser level of development, less roadway noise would likely occur within and in the vicinity of the Specific Plan Area. Nonetheless, like the WBSP, impacts would remain less than significant with mitigation.

PUBLIC SERVICES AND RECREATION

This alternative would increase demand for public services and recreation, albeit less than the WBSP, due to an overall reduction in the development potential of the Specific Plan Area. With implementation of the WBSP, impacts were determined to be less than significant because each development would be required to contribute appropriate fees, including fees related to the establishment and maintenance of park/recreation facilities within the City. Alternative 3 would also result in less-than-significant public services and recreation impacts similar to the WBSP but to a lesser degree.

TRANSPORTATION AND CIRCULATION

Under Alternative 3, there would be additional vehicles trips associated with new development within the Specific Plan Area compared to existing conditions. However, due to the lesser level of development, the anticipated increase in VMT associated with new uses within the Specific Plan Area would be less than that of the WBSP but would likely remain significant. Similar to the WBSP, it is assumed that network improvements would be implemented as part of this alternative and funded through a financing plan, including the realignment of Muir Way. As a result, this alternative would result in similar circulation impacts, albeit less than the WBSP due to the less intense level of development (approximately 1,000 fewer residences and 300,000 sf of commercial/industrial space). As a result, overall impacts on intersections, freeways, or local neighborhood traffic would be less under this alternative than the WBSP but would likely remain significant and unavoidable (with respect to increased VMT).

UTILITIES AND SERVICE SYSTEMS

Under Alternative 2, less additional demand on utilities or requirements to alter or expand infrastructure compared to the WBSP would occur due to the lesser level of development and because population levels would be potentially lower within the Specific Plan Area. In general, impacts would be less under this alternative but remain less than significant.

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. Section 15126.6 (e)(2) of the State CEQA Guidelines requires that an environmentally superior alternative be designated and states that if the environmentally superior alternative is the No Project alternative, the EIR also is required to identify an environmentally superior alternative among the other alternatives.

As illustrated in Table 6-1, below, either the WBSP with the Scenario B option or Alternative 3 would be considered the environmentally superior action alternative because although the majority of environmental impacts would be similar to the WBSP, neither alternative would result in an increase in the severity of any impacts. For example, the potential impacts to sensitive species and habitat would be avoided without the planned improvements to the Marina/Miller Regional Park Special Study Area under the WBSP with the Scenario B option; whereas Alternative 3 would generally reduce impacts due to the lesser level of development intensity that would occur within the Specific Plan Area. However, neither alternative would achieve the project objectives to the extent of the proposed WBSP.

With respect to the other alternatives, each alternative, presented above and summarized in Table 6-1, would reduce many significant impacts, including some significant and unavoidable impacts, associated with the WBSP, but would also increase the significance of certain impacts, as well. For example, both Alternatives 1 and 2 would result in lesser development of the Specific Plan Area, which would reduce overall emissions (criteria air pollutants and GHG) associated with the development. However, they would not include the proposed circulation improvements, including the realignment of Muir Way, which could result in greater circulation impacts within the Specific Plan Area and surrounding areas.

While each of the alternatives presented above, would achieve most of the basic project objectives, they would not achieve many of the objectives to the extent of the WBSP, including the provision of a variety of housing choices, enhancing the West Broadway corridor as a gateway to the City, and improving the street grid connections within the Specific Plan Area. Therefore, when considering objectives, the WBSP would best meet the purpose and need for the plan.

Table 6-1 Summary of Environmental Effects of the Alternatives Relative to the WBSP

Environmental Topic	WBSP	WBSP with Scenario B Option	Alternative 1: No Project – Existing General Plan Alternative	Alternative 2: Historic Preservation Alternative	Alternative 3: Lesser Density Development Alternative
Aesthetics, Light, and Glare	LTS	Similar	Less	Less	Less
Air Quality	SU	Less	Greater	Less	Less
Biological Resources	LTS/M	Less	Less	Less	Less
Cultural Resources and Tribal Cultural Resources	SU	Similar	Less	Less	Similar
Energy	LTS	Similar	Greater	Less	Less
Geology and Soils	LTS	Similar	Similar	Similar	Similar
Greenhouse Gas Emissions, Climate Change, and Energy	LTS/M	Less	Similar	Less	Less
Hazards and Hazardous Materials	LTS	Similar	Greater	Similar	Similar
Hydrology and Water Quality	LTS/M	Similar	Similar	Similar	Similar
Noise and Vibration	SU	Similar	Less	Less	Less
Public Services and Recreation	LTS	Similar	Similar	Less	Less
Transportation and Circulation	SU	Similar	Greater	Greater	Less
Utilities and Service Systems	LTS	Similar	Similar	Less	Less

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