



State Streets Infrastructure Projects

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION



November 2019



**NOTICE OF AVAILABILITY AND
NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION FOR THE
STATE STREETS INFRASTRUCTURE PROJECTS**

NOTICE IS HEREBY GIVEN that the Initial Study/Mitigated Negative Declaration (IS/MND) for the State Streets Infrastructure Projects has been completed and is available for public review. The public may review the IS/MND on the City of West Sacramento website: www.cityofwestsacramento.org/Government/Departments/Capital_Projects_and_Transportation/Projects/State_Street_Infrastructure_Projects. The IS/MND can also be reviewed during normal business hours at the City of West Sacramento Capital Projects & Transportation Department office, 1110 West Capitol Avenue, Second Floor, West Sacramento, CA 95691.

The IS/MND is also available for review at the Yolo County Library – West / Arthur F. Turner Library, 1212 Merkley Avenue, West Sacramento, CA 95691.

The IS/MND has been prepared in accordance with the California Environmental Quality Act (CEQA; Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (Title 14, California Code of Resources, Section 15000 et seq.).

Project Name: State Streets Infrastructure Projects

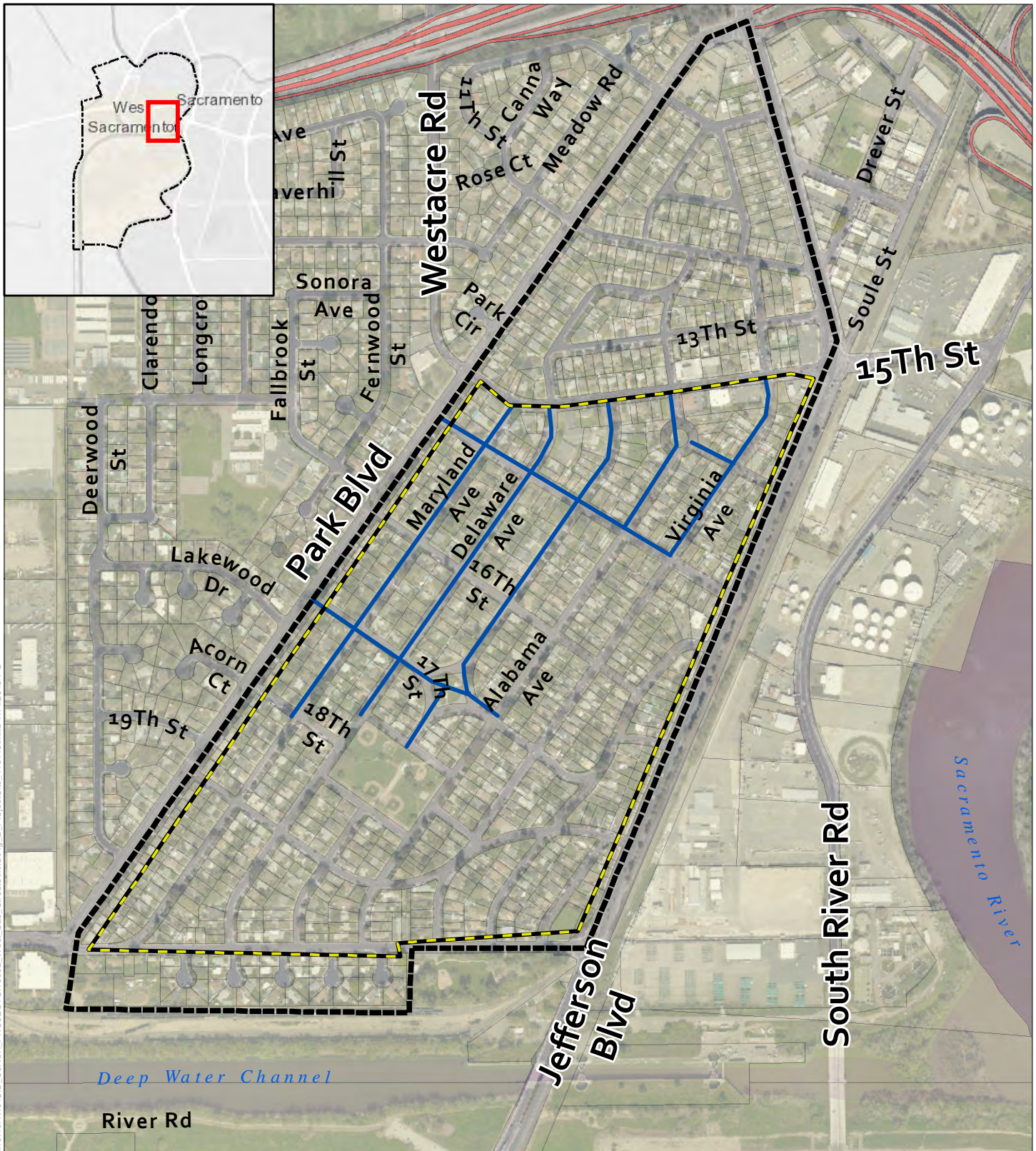
Project Sponsor and CEQA Lead Agency: City of West Sacramento Capital Projects & Transportation Department, 1110 West Capitol Avenue, First Floor, West Sacramento, CA 95691

Project Description: The proposed project consists of replacing approximately 9,600 feet of water main, rehabilitating approximately 36,000 feet of sewer main, curb and gutter replacement, sidewalk repairs, curb ramp installations and pavement rehabilitation with the project. Construction is scheduled between Jan 2020 – Jan 2021.

Project Location: The Proposed Project is in the State Streets neighborhood of the City of West Sacramento, Yolo County, and is bounded by Jefferson Blvd., Park Blvd., and Stone Blvd. (see Figure 1).

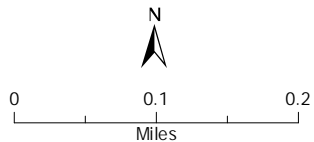
Public Review and Comment Period: In accordance with the time limits provided for by state law, the public review period will extend from **November 6, 2019, to December 5, 2019**. Comments must be received by 5:00 p.m. on **December 5, 2019**. Comments may be sent in hard copy or via email to:

Amber Wallace, P.E., Associate Civil Engineer
City of West Sacramento Capital Projects & Transportation Department
1110 West Capitol Avenue, First Floor
West Sacramento, CA 95691
Email: amberwa@cityofwestsacramento.org



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Basebap Sources: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,



- Proposed water main replacement
- - - Boundary of Proposed Sanitary Sewer main Rehab/Repair
- - - Pavement Rehabilitation boundary area

Source: City of West Sacramento 2018

Figure 1
Proposed Project Site

State Streets Infrastructure Projects

Initial Study/Mitigated Negative Declaration

Prepared for:

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November 2019

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- Appendix D.** Mitigation Monitoring and Reporting Plan

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Acronyms and Abbreviations

§	section
A	
AB	Assembly Bill
ADA	Americans with Disabilities Act
APN	Assessor's parcel number
ATCM	Airborne Toxic Control Measures
B	
bgs	below ground surface
BMP	best management practice
C	
C	Commercial
CAL FIRE	California Department of Forestry and Fire Protection
Cal OES	California Governor's Office of Emergency Services
Cal/OSHA	California Department of Industrial Relations, Division of Occupational Safety and Health
CalEPA	California Environmental Protection Agency
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Standards Code
CCR	California Code of Regulations
CCTV	closed-circuit television
CDFW	California Department of Fish and Wildlife
CDOC	California Department of Conservation
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CIPP	cured-in-place pipe
City	City of West Sacramento
CIWMA	California Integrated Waste Management Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
County	County of Yolo
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agency
D	
dB	decibel

dba	A-weighted decibel
dbh	diameter at breast height
DPM	diesel particulate matter
DTSC	California Department of Toxic Substances Control
E	
EIR	Environmental Impact Report
ESL	Environmental Screening Level
F	
F&G Code	California Department of Fish and Game Code
FEMA	Federal Emergency Management Agency
FTA	Federal Transit Administration
G	
GHG	greenhouse gas
H	
HAP	hazardous air pollutant
HCP	habitat conservation plan
Hz	hertz
I	
I-80	Interstate 80
in/sec	inches per second
IPaC	Information for Planning and Consultation Report
IS/MND	initial study/mitigated negative declaration
L	
LR	Low Density Residential
Leq	equivalent steady-state sound level
Lmax	maximum sound level
LOS	level of service
M	
MBTA	Migratory Bird Treaty Act
MG	million gallons
MGD	million gallons per day
MLD	Most Likely Descendant
N	
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	natural community conservation plan
NOx	oxides of nitrogen

NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
NWIC	Northwest Information Center
P	
PCB	polychlorine biphenyls
PERP	Portable Equipment Registration Program
PM	particulate matter
PM10	particulate matter of aerodynamic radius of 10 micrometers or less
PM2.5	particulate matter of aerodynamic radius of 2.5 micrometers or less
ppm	parts per million
PPV	peak particle velocity
Proposed Project	State Streets Infrastructure Projects
PRC	Public Resources Code
PVC	polyvinyl chloride
R	
RFP	Reasonable Further Progress
ROG	reactive organic gases
ROW	right-of-way
RP	Recreation and Park
RWQCB	Regional Water Quality Control Board
S	
SO ₂	sulfur dioxide
SR	State Route
SSMP	sewer system management plan
Superfund	Comprehensive Environmental Response, Compensation, and Liability Act
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
T	
TAC	toxic air contaminant
TCR	tribal cultural resource
U	
U.S.	United States
UAIC	United Auburn Indian Community of the Auburn Rancheria
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

V

VdB vibration velocity in decibels

VOC volatile organic compound

W

Williamson Act California Land Conservation Act of 1965

Y

YSAQMD Yolo-Solano Air Quality Management District

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1.1 Introduction and Purpose

The City of West Sacramento (City) has prepared this initial study/mitigated negative declaration (IS/MND) to provide the public, responsible agencies, and trustee agencies with information about the potential environmental effects of the proposed State Streets Infrastructure Improvements Project (Proposed Project). This document has been prepared in accordance with the requirements of the California Environmental Quality Act of 1970, as amended (CEQA) (Public Resources Code [Pub. Res. Code] Section 21000 et seq.) and the State CEQA Guidelines (Title 14 California Code of Regulations [CCR] Section 15000 et seq.).

The City is evaluating the proposed implementation of multiple infrastructure projects within the State Streets neighborhood located on the east side of the city, bounded by Jefferson Boulevard, Park Boulevard, 15th Street, and Stone Boulevard. Infrastructure improvements would include replacement and rehabilitation of water and sanitary sewer mains and pipelines, as well as rehabilitation of existing curb, gutter, sidewalk, and pavement.

This chapter describes the intent and scope of this IS/MND, the public involvement process, the organization and scope of the document, and specific impact-related terminology used in the document.

1.2 Intent and Scope of this Document

This IS/MND has been prepared in accordance with CEQA, under which the Proposed Project is evaluated at a project level (State CEQA Guidelines Section 15378). The City of West Sacramento, as the lead agency under CEQA, will consider the Proposed Project's potential environmental impacts when considering whether to approve the project. This IS/MND is an informational document to be used in the planning and decision-making process for the Proposed Project and does not recommend approval or denial of the Proposed Project.

This IS/MND describes the Proposed Project; its environmental setting, including existing conditions and regulatory setting, as necessary; and the potential environmental impacts of the Proposed Project on or with regard to the following topics:

- Aesthetics
- Agriculture/Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology, Soils, and Seismicity
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Tribal Cultural Resources
- Transportation
- Utilities and Service Systems
- Wildfire

1

2 1.3 Public Involvement Process

3 Public disclosure and dialogue are priorities under CEQA. State CEQA Guidelines Sections
 4 15073 and 15105(b) require that the lead agency designate a period during the IS/MND
 5 process when agencies and the public can provide comments on the potential impacts of the
 6 Proposed Project. Accordingly, the City is circulating this document for a 30-day public and
 7 agency review period. The beginning and ending dates of the comment period are identified
 8 in the Notice of Availability.

9 Comments on this IS/MND can be submitted by mail or email to the following contact:

10 Amber Wallace, P.E., Associate Civil Engineer
 11 City of West Sacramento Capital Projects & Transportation Department
 12 1110 West Capitol Avenue, 1st Floor
 13 West Sacramento, CA 95691
 14 Email: amberwa@cityofwestsacramento.org

15 All comments received before 5:00 p.m. on the date identified for closure of the public
 16 comment period in the Notice of Intent will be considered by the City during its deliberations
 17 on whether to approve the Proposed Project.

18 1.4 Organization of this Document

19 This IS/MND contains the following components:

20 Chapter 1, *Introduction*, provides a brief description of the intent and scope of this
 21 IS/MND, the public involvement process under CEQA, the organization of the
 22 document, and terminology used in this IS/MND.

23 Chapter 2, *Project Description*, describes the Proposed Project, including its purpose
 24 and goals, the project site where the Proposed Project would be constructed and
 25 operated, construction methods, and related permits and approvals.

Chapter 3, *Environmental Checklist*, presents the environmental checklist used to assess the Proposed Project's potential environmental effects, which is based on the model provided in Appendix G of the State CEQA Guidelines. This chapter includes brief regulatory environmental setting descriptions for each resource topic, evaluates the Proposed Project's anticipated environmental impacts, and identifies mitigation measures that would be required to reduce potentially significant impacts to a less-than-significant level.

Chapter 4, *Report Preparers*, identifies the individuals who prepared portions of this document.

Chapter 5, *References*, provides a bibliography of printed references, websites, and personal communications used in preparing this IS/MND.

Appendices:

- Appendix A. *Arborist Report*
- Appendix B. *Biological Resources Information*
- Appendix C. *Cultural/Tribal Cultural Resources Evaluation*
- Appendix D. *Mitigation Monitoring and Reporting Program*

1.5 Impact Terminology

This IS/MND uses the following terminology to describe the environmental effects of the Proposed Project:

- A finding of *no impact* is made when the analysis concludes that the Proposed Project would not affect the particular environmental resource or issue.
- An impact is considered *less than significant* if the analysis concludes that no substantial adverse change in the environment would result and that no mitigation is needed.
- An impact is considered *less than significant with mitigation* if the analysis concludes that no substantial adverse change in the environment would result with the implementation of the mitigation measures described.
- An impact is considered *potentially significant* if the analysis concludes that a substantial effect on the environment could result.
- Mitigation refers to specific measures or activities that would be adopted by the lead agency to avoid, minimize, rectify, reduce, eliminate, or compensate for an otherwise significant impact.
- A cumulative impact refers to one that can result when a change in the environment would result from the incremental impacts of a project along with other related past, present, or reasonably foreseeable future projects. Significant cumulative impacts might result from impacts that are individually minor but collectively significant. The cumulative impact analysis in this IS/MND focuses on whether the Proposed Project's incremental contribution to significant cumulative impacts caused by the project in combination with past, present, or probable future projects is cumulatively considerable.

- 1
 - 2
 - 3
 - 4
- Because the term “significant” has a specific usage in evaluating the impacts under CEQA, it is used to describe only the significance of impacts and is not used in other contexts within this document. Synonyms such as “substantial” are used when not discussing the significance of an environmental impact.

2.1 Overview

The City of West Sacramento (City) is evaluating the environmental effects of implementing multiple infrastructure projects within the State Streets neighborhood. The State Streets Infrastructure Improvement Project (Proposed Project) can be characterized generally as improvements to water infrastructure, sanitary sewer infrastructure, and existing pavement. The neighborhood, located southwest of the Interstate 80 (I-80)/Jefferson Boulevard interchange and west of the Sacramento River, is bounded by Jefferson Boulevard, Park Boulevard, and Stone Boulevard.

This chapter describes the Proposed Projects and discusses its purpose, objectives, location, proposed actions, and necessary permits and approvals.

2.2 Proposed Project Purpose and Objectives

The purpose of the State Streets Water Capacity and Sewer Rehabilitation Project is to correct some of the infrastructure deficiencies identified in the *2015 Water System Master Plan Update* (City of West Sacramento 2017a) and *2015 Sanitary Sewer Master Plan Update* (City of West Sacramento 2017b), as well as conducting additional pavement and curb/gutter maintenance activities in the area.

Project objectives are as follows:

- replace the aging water as identified in the City's *2015 Water Master Plan Update* and, to improve water system reliability and to improve fire flows in the area;
- replace or rehabilitate aging sewer pipelines as identified in the City's *2015 Sanitary Sewer Master Plan Update*; and
- repair and/or remove and replace curb, gutter, sidewalk, and retrofits required to comply with the Americans with Disabilities Act (ADA) and rehabilitate deficient street sections.

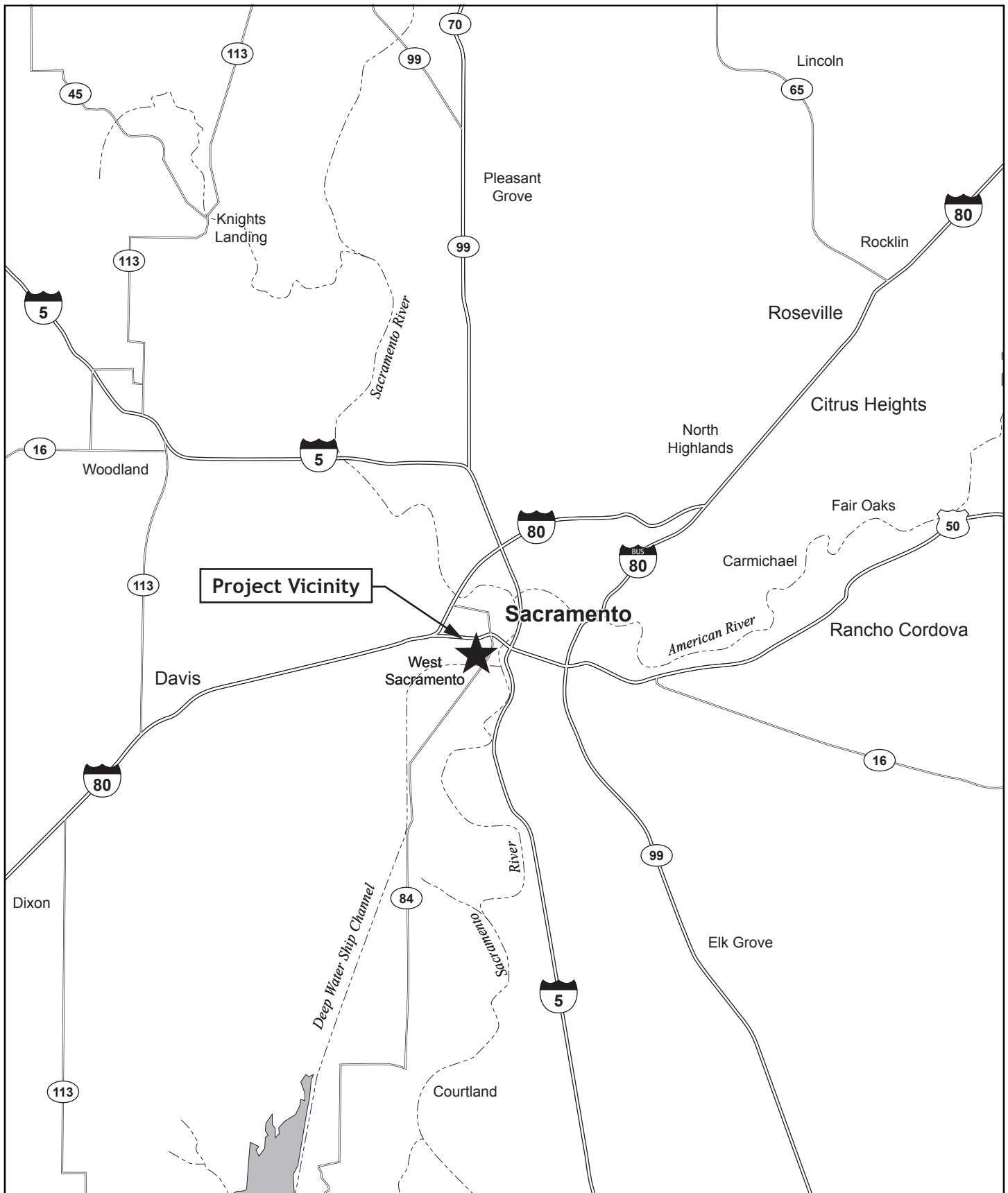
2.3 Proposed Project Location and Setting

The State Streets area is located in the central portion of the City of West Sacramento, on the eastern border of Yolo County with Sacramento County (**Figure 2-1**). The neighborhood is located southwest of the Interstate 80 (I-80)/Jefferson Boulevard interchange and west of the Sacramento River.

The State Streets neighborhood is one of the city's older communities, with the earliest development dating back to the 1920s and the largest influx taking place after World War II, in the early 1950s. Bounded by Jefferson Boulevard, Park Boulevard, and Stone Boulevard,

1 the neighborhood comprises the eastern half of what is also referred to as Old West
2 Sacramento. Approximately 625 single-family residences are located in the neighborhood,
3 with an estimated population of approximately 1,750 persons. The area is designated entirely
4 as Low Density Residential (LR) except for a community park between Regent Street and
5 Euclid Street, designated Recreation and Park (RP), and a small commercial area north of the
6 intersection of Maryland Avenue and Virginia Avenue, designated Commercial (C).

7



**Figure 2-1.
Project Location Map**

Prepared by:



State Streets Infrastructure Projects

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2.4 Proposed Project Elements

The Proposed Project consists of replacing approximately 9,600 feet of water main within eight identified residential streets and replacing or rehabilitating approximately 36,000 feet of gravity sewer main. **Figure 2-2** illustrates the project boundaries and the streets that would be affected. Two project boundaries are shown: (1) the streets that would undergo water main replacement and sewer main replacement and (2) the larger limits of the closed-circuit television (CCTV) sewer investigations, sewer lining, and curb/gutter/pavement rehabilitation. The CCTV inspection has already been conducted for most portions of the project area, and almost all of the sewer lines are suitable for rehabilitation rather than replacement. The remaining areas would be inspected to identify the potential rehabilitation needs for the remaining sewer mains in the larger project boundary. **Table 2-1** identifies the streets affected by the Proposed Project where water main improvements and sewer main replacements are proposed.

Table 2-1. Areas Affected by the Proposed Projects

Street	Cross Streets	Approximate Length (linear feet)
Water System Improvements		
Maryland Avenue	18 th Street to 15 th Street	1,912
Delaware Avenue	Regent Street to 15 th Street	1,906
Pennsylvania Avenue	Regent Street to Alameda Boulevard	1,472
Alabama Avenue	Alameda Boulevard to 15 th Street	598
Virginia Avenue	Alameda Boulevard to 15 th Street	1,035
17 th Street	Park Boulevard to Alabama Avenue	1,117
Alameda Boulevard	Maryland Avenue to Alabama Avenue	775
Circle Street	Alabama Avenue to Virginia Avenue	770
Total		9,585
Sewer Line Replacement and Rehabilitation		
Sewer pipelines in the area bounded by Jefferson Boulevard, Park Boulevard, Stone Boulevard, and 15th Street (see Section 2.5.2, "Sewer Main Rehabilitation and Replacement," for more information)		36,235
Pavement Restoration		
Curb, gutter, sidewalk, and driveways in the area bounded by Jefferson Boulevard, Park Boulevard, Stone Boulevard, and 15th Street (see Section 2.5.3, "Pavement Restoration," for more information)		As needed throughout

Source: Domenichelli and Associates 2018; City of West Sacramento 2019

2.4.1 Water Main Replacement

The City would replace approximately 9,600 feet of water main using open-cut installation at the current locations. Based on City design requirements, all water mains within the City's distribution system would be replaced with minimum 8-inch-diameter pipes. The existing asbestos cement (transite) and welded steel piping would be abandoned in place and replaced with polyvinyl chloride (PVC) pipe, which is an acceptable option for potable water systems. Water mains would be backfilled by at least 30 inches of soil and pavement (within the existing right-of-way [ROW]), installed in accordance with City standards. A geotechnical engineering study prepared for the Proposed Project (Youngdahl Consulting Group 2018) includes recommendations for backfilling in areas that contain unsuitable material, if any are identified.

The existing water mains would be abandoned in place in accordance with City procedures. Each main not in use would be disconnected and capped with a minimum of 24 inches of concrete injected into the pipe, mushrooming 12 inches beyond the end of the pipe. Water mains that would remain in use would be capped with cast iron fittings, with a concrete thrust block placed against the cap.

Fire hydrants would be installed at or near street intersections at a maximum spacing of 500 feet; on streets without fronting lots, fire hydrants would have a maximum spacing of 1,000 feet.

All properties in West Sacramento are served by water meters. If any existing water meters would need to be relocated to accommodate the new water main, they would be reconnected at a suitable location.

2.4.2 Gravity Sewer Main Rehabilitation

The Proposed Project includes rehabilitation or replacement of approximately 36,235 linear feet of sewer main within the project area. The City has used video inspection to determine rehabilitation or replacement for most of the project area; inspection is in process for the remaining areas. This project would use the existing sewer main alignments and current pipe depths through a trenchless process. Some excavation may be required for repair of service laterals.

Rehabilitation method alternatives and recommendations are presented in Section 2.5.

2.4.3 Pavement Restoration

The City would perform a project-wide pavement restoration project as part of the Proposed Project. Approximately 16,000 linear feet of curbs and gutters, along with two valley gutters, sidewalks, and residential and commercial driveways within the State Streets neighborhood would be repaired, rehabilitated, or replaced during project construction. The City has evaluated the condition of these facilities throughout the project area and identified locations in need of repair or replacement.

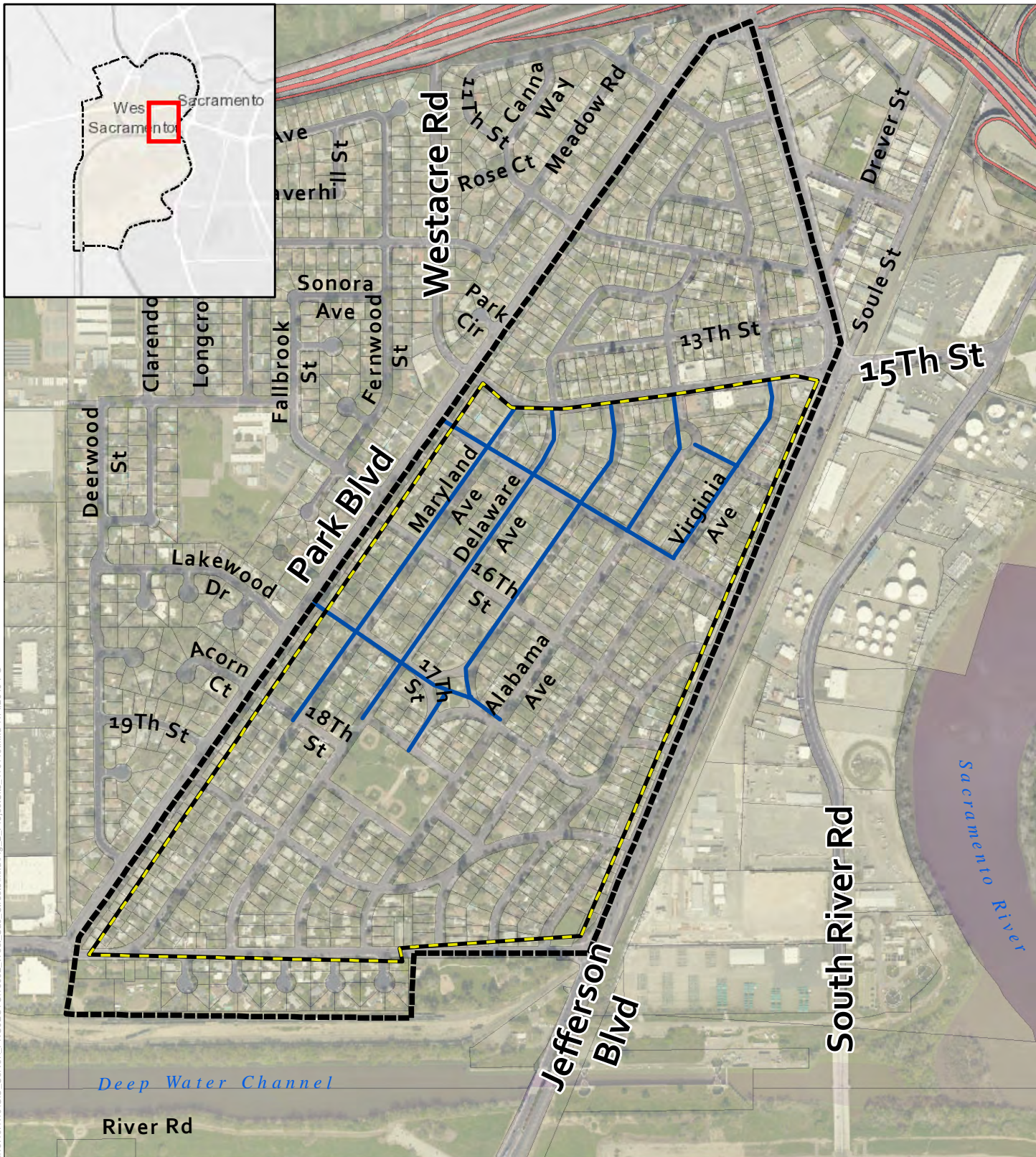


Figure 2-2
Proposed Project Site

Basebap Sources: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,

- Proposed water main replacement
- Boundary of Proposed Sanitary Sewer main Rehab/Repair
- Pavement Rehabilitation boundary area

Source: City of West Sacramento 2018



State Streets
Infrastructure Projects

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2.5 Proposed Project Construction

Information on construction methods for the Proposed Project is provided in the *Design Criteria Technical Memorandum* prepared for the Proposed Project in December 2018 (Domenichelli and Associates 2018).

2.5.1 Water Main Replacement

The new water mains would be installed using conventional open-cut methods in accordance with City standards and the City's encroachment permit requirements. Although water service lines are sometimes installed using trenchless boring technology to minimize surface impacts, the open-cut method is considered a feasible installation method for this project because pavement restoration is also a part of the project.

The existing water main and water services would be shut down during scheduled mainline shutdowns and when the existing water services are being crossed over to the new water services and mains. The City's Utility Maintenance Division would notify all affected users in writing at least 48 hours in advance of service interruption. Shutdowns would not be allowed on Friday, weekends, or City-recognized holidays.

The existing water mains and water services would remain in service (except for limited shutdowns during construction) until the new main and water services have been installed and backfilled, flushed, pressure tested, and passed bacteriological tests.

2.5.2 Sewer Main Rehabilitation and Replacement

Rehabilitation Methods

Two methods would be used for rehabilitation and replacement of sewer mains as part of the Proposed Project. A total of 36,235 feet of sewer pipelines within the area bounded by Jefferson Boulevard, Park Boulevard, Stone Boulevard, and 15th Street will be inspected to determine the need for replacement or rehabilitation. All lines will be either lined with Cured in Place Pipe or replaced. Sewer laterals may be rehabilitated and replaced as needed.

Conventional Open-cut Removal and Replacement

The conventional rehabilitation method requires the contractor to open-cut and shore the trench over the existing sewer pipe, remove existing pipe, and install the new sewer main pipe in the same location. This method would be used for localized spot repairs at locations where the existing sewer main has been significantly compromised (e.g., broken pipe), based on information obtained from the CCTV inspection, and at locations where the sewer main cannot be lined or where a substantial length of the sewer main needs to be replaced. New sewer mains installed through the open-cut method are typically PVC pipe.

Cured-in-Place Pipe

The cured-in-place pipe (CIPP) rehabilitation method involves lining the existing "host pipe" with a resin-impregnated felt liner that is inflated and cured in place. This method is typically used for full-length rehabilitations. In some instances, spot repairs may be necessary to successfully perform the lining procedure. In all cases, a resin-impregnated felt liner is the

only material used in this rehabilitation process; the liner may be either a structural or non-structural liner. Based on the CCTV inspection and the potential for void spaces within the existing pipe backfill, a structural liner is recommended when the CIPP method is used.

The CIPP rehabilitation method would be most commonly used to rehabilitate the existing sewer mains. Based on the CCTV inspection, most of the sewer mains inspected appear they would accommodate the CIPP process. It is anticipated that more sewer main cleaning and some spot repairs would be necessary to adequately remove solids and/or eliminate pipe sags and joint off-sets before the CIPP method can be implemented.

Sewer System Management Plan

For all rehabilitation methods, the City's contractor would be required to prepare, submit for City approval, and implement a sewer system management plan (SSMP) specific to each rehabilitation method. The SSMP would identify the labor, materials, and equipment provided to avoid any sanitary sewer overflows, sewer impacts on customers, and impacts on the other portions of the City sewer system not actively being rehabilitated. The SSMP would outline the contractor's approach to bypass sewer flows and/or temporarily plug the sewer system while performing the sewer main rehabilitation.

2.5.3 Pavement Restoration

Construction methods for pavement may include mill and fill, full-depth-reclamation or cold-in-place replacement. Temporary pavement would be placed during pipeline installation. These activities could include installation of any new sewer mains, locations of spot repairs, manhole rehabilitation or replacements, sewer lateral reconnections or replacement, and any other activity where pavement would be disturbed. The City may consider a reduced final trench thickness (3 inches rather than the standard 4 inches) or allow for restoration of the trench section only (no T-trench section required).

2.5.4 Potential Need for Tree Removal

As described above, homes in the State Streets neighborhood were constructed between the 1910s and the 1950s. Many properties have well-established landscape trees, some of which have grown over or beneath the sidewalk and road and may have caused damage to pavement and/or pipelines. In addition, water and sewer pipelines for the neighborhood were installed at approximately the same time these trees were planted. As a result, some tree roots may be located directly in the path of excavation and construction activities for the Proposed Project.

To identify which trees could be affected by the Proposed Project, surveyors with the City Capital Projects & Transportation Department compared the project map (Figure 2-2) with a map of trees in the project area. West Coast Arborists then conducted a tree survey of the neighborhood and identified, measured, and assessed the health of the 68 indicated trees in fall 2018 (**Figure 2-3**). Of these, five trees were recommended for removal regardless of project construction because of location, poor structure, or poor health. An additional two trees were recommended for extensive pruning to reduce safety hazards from poor structure. More information about the arborist's evaluation is provided in Section 3.4, "Biological Resources," and **Appendix A, Arborist Report**.



Figure 2-3.
Mapped Locations of Potential Tree Impacts

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The City's Tree Preservation Ordinance (Chapter 8.24 of the West Sacramento Municipal Code) protects several classifications of trees that may be affected by a typical construction project:

- **Heritage tree:** Any living tree with a trunk circumference of 75 inches or more or a native oak with a trunk circumference of 50 inches or more, measured 4 feet 6 inches from ground level
- **Landmark tree:** Any tree or stand of trees that is especially prominent, stately, or of historical significance as designated by the city council
- **Native oak tree:** A living tree of any species of the *Quercus* genus (all oaks, including the nine native California oaks); for example, the interior live oak (*Quercus wislizenii*), valley oak or California white oak (*Quercus lobata*), or blue oak (*Quercus douglasii*)
- **Street tree:** Any tree growing or placed within the tree maintenance strip or public right-of-way

Under the Tree Preservation Ordinance, trees in these classifications that are affected by construction activity must be replaced; other categories of trees, such as landscaping trees on private property, are not protected. For this project, the City tree administrator has determined that, because of the significance of trees as a key element of the neighborhood's identity, the requirement under the City's Tree Preservation Ordinance to replace only heritage, native, and landmark trees and street trees would be expanded to include to all trees that require removal.

During construction, West Coast Arborists would evaluate trees on a case-by-case basis where construction activities are identified as affecting roots or branches. The City would make every reasonable effort to preserve trees where feasible; however, the nature of the pipeline work being proposed allows limited opportunity for modification to avoid impacts.

The City would make replacement trees available to homeowners through the City Parks and Recreation Department's West Sacramento Tree Program. This program provides free trees to homeowners who attend a Free Tree Workshop (City of West Sacramento n.d.). The following tree species are available through the program:

- Valley Oak (*Quercus lobata*)
- Cork Oak (*Quercus suber*)
- Frontier Elm (*Ulmus 'Frontier'*)
- Prospector Elm (*Ulmus wilsoniana*)
- Golden Rain (*Koelreuteria paniculate*)
- Trident Maple (*Acer buergerianum*)
- Maidenhair Tree (*Ginkgo biloba*)
- Deodar Cedar (*Cedrus deodara*)

These species have been selected as being drought resistant and "utility friendly" (i.e., their height and branching structure are not likely to interfere with power lines, and their root system is not likely to affect underground pipelines or sidewalks), as well as based on their speed of growth, hardiness, and lifespan.

2.5.5 Construction Equipment

Approximately 20-35 construction workers would commute to and from the project site each work day over the approximately 18-month work period. The main pieces of equipment that may be used are the following:

Water Main and Sewer Main Installation

- track-mounted excavators (2)
- end dump/haul trucks (4)
- flat-bed delivery truck (1)
- concrete truck (1)
- backhoe (1)
- front-end loaders (2)
- vac truck (1)
- concrete saw (1)
- pipe cutting saw (2)
- water truck (1)
- street sweeper (1)
- “Ditch Witch” horizontal directional drilling machine (1)
- compressor/jack hammer (1)
- crew trucks (F150-F350) (3)

CIPP Installation

- Television Inspection truck (1)
- vac truck (2)
- refig truck/liner truck (1)
- generator truck (1)
- water truck (1)
- boiler truck (1)
- crew trucks (F150-F350) (3)

Table 2-2 provides information about construction scheduling during each stage of construction. Most soil excavated from the project construction areas would be reused to fill the excavated areas; the remaining soil would be off-hauled to a landfill.

Table 2-2. Construction Schedule by Stage

Stage	Estimated Dates
Sewer Rehabilitation	
Open cut sewer main and lateral installation	mid-January through mid-March 2020
Sewer main CIPP rehabilitation	mid-January through June 2020
Water Main Improvement	
Water main installation	mid-June through August 2020
Water service installation	August through September 2020
Trench pavement restoration and street repaving	March 2021

Source: Dugan, pers. comm., 2019

2.5.6 Construction Schedule and Timeline

Construction of the Proposed Project is anticipated to take place over approximately 18 months and is expected to begin in January 2020. Table 2-2 provides general information about the phasing and schedule for the Proposed Project.

Construction activities would occur Monday through Friday between 7:00 a.m. and 7:00 p.m. as allowed by City ordinance. Work on Saturdays, Sundays, and state holidays may be permitted on a case-by-case basis at the discretion of the City.

The construction process would take place in three parts.

- Sewer replacement would affect approximately 523 homes over the first six months of 2020. Cleaning would progress at a rate of 12,000 feet per day, and lining would move at 800 feet per day.
- Water line replacement would take place in summer of 2020, progressing at a rate of 200-300 feet per day.
- Repaving of the streets would take place in spring 2021. The new base would be compacted at a rate of 1 block per day (drivable immediately afterward) and then left to cure for 2 days. Grading and paving would take place on 1 block per day.

In all, active construction would take place in front of each affected residence for approximately 6 days over the year-long construction period.

2.6 Responsible and Trustee Agencies

California Environmental Quality Act (CEQA) defines a responsible agency as “a public agency, other than the lead agency, which has responsibility for carrying out or approving a project” (Public Resources Code [PRC] Section 21069). A trustee agency is “a state agency that has jurisdiction by law over natural resources affected by a project, that are held in trust for the people of the State of California” (PRC Section 21070). For the Proposed Project, the California Department of Fish and Wildlife, North Central Region, is considered a trustee agency. Responsible agencies for the Proposed Project are the Central Valley Regional Water Quality Control Board and Yolo-Solano Air Quality Management District.

2.7 Permits and Approvals

The permits and regulatory compliance requirements for the Proposed Project are described in **Table 2-3**.

Table 2-3. Applicable Permit and Regulatory Requirements

Regulatory Agency	Law/Regulation	Purpose	Permit/Authorization Type
Central Valley Regional Water Quality Control Board	Clean Water Act Section 402	National Pollutant Discharge Elimination System (NPDES) program regulates discharges of pollutants	NPDES General Permit Construction Permit
Central Valley Regional Water Quality Control Board	Nonpoint Source Pollution Control Program	Regulates discharge of pollutants into surface waters	Section 401 water quality certification
California Department of Fish and Wildlife – North Central Region	California Endangered Species Act (CESA) (Fish and Game Code Section 2081[b])	Regulates “take” of species listed under CESA as threatened or endangered	Incidental Take Permit, if necessary
Yolo-Solano Air Quality Management District	Stationary Source Permit	Required for activities that emit pollutants	Authority to Construct and Permit to Operate (for generators or pumps if larger than 50 horsepower)

Chapter 3

ENVIRONMENTAL CHECKLIST

This chapter of the initial study/mitigated negative declaration (IS/MND) assesses the environmental impacts of the City of West Sacramento's State Streets Infrastructure Projects (Proposed Project) based on the environmental checklist provided in Appendix G of the State California Environmental Quality Act (CEQA) Guidelines. The environmental resources and potential environmental impacts of the Proposed Project are described in the individual sections below. Each section includes a discussion of the rationale used to determine the significance level of the Proposed Project's environmental impact for each checklist question. For environmental impacts that have the potential to be significant, mitigation measures are identified that would reduce the severity of the impact to a less-than-significant level.

- | | |
|---|---|
| 1. Project Title | State Streets Infrastructure Projects |
| 2. Lead Agency Name and Address | City of West Sacramento
Capital Projects & Transportation Department
1110 West Capitol Avenue, 1 st Floor
West Sacramento, CA 95691 |
| 3. Contact Person, Phone Number and Email | Amber Wallace, P.E., Associate Civil Engineer
(916) 617-5327
amberwa@cityofwestsacramento.org |
| 4. Project Location and Assessor's parcel number (APN) | Neighborhood located southwest of the Interstate 80 (I-80)/Jefferson Boulevard interchange and west of the Sacramento River, bounded by Jefferson Boulevard, Park Boulevard, and Stone Boulevard, including road right-of-way |
| 5. Property Owner(s) | City of West Sacramento |
| 6. General Plan Designation | Mostly Low Density Residential District (LR); some Recreation and Parks (RP), Commercial (C) |
| 7. Zoning | Mostly Residential One Family (R-1-A); some Residential-Medium Density (R-2), Recreation and Parks (RP), Commercial (C) |
| 8. Description of Project | The Proposed Project would involve upgrading water, sanitary sewer pipelines, and repairing and/or removing and replacing curbs, gutters, sidewalks, and rehabilitate pavement. |
| 9. Surrounding Land Uses and Setting | Residential, Open Space, Recreation and Parks, Public/Quasi Public, and commercial uses surround the project location, with the Sacramento River on the east. Residential uses border the western side of |

the project site with a small strip of open space bordering the southwestern most section, Sam Combs Park is located to the southeast, railroad tracks are located along the southern border of the site, and commercial buildings are located along the eastern border.

**10. Other Public Agencies
whose Approval or Input
May Be Needed**

- Central Valley Regional Water Quality Control Board
- California Department of Fish and Wildlife – North Central Region
- Yolo-Solano Air Quality Management District

**11. Native American
Consultation**

The United Auburn Indian Community of the Auburn Rancheria (UAIC) and the Yocha Dehe Wintun Nation, both tribes with a traditional and cultural affiliation to the Project area, had previously requested consultation with the City on department projects pursuant to PRC section (§) 21080.3.1. The City sent Project notification letters, dated February 1, 2019, to both tribes via United States (U.S.) mail with a returned receipt. The Yocha Dehe Wintun Nation responded in a letter dated February 19, 2019, stating that the tribe “would like to participate in ongoing consultation.” The UAIC responded in a letter dated March 11, 2019, requesting consultation under Assembly Bill (AB) 52, copies of all cultural resources record search materials and environmental documents, and indicated a desire to meet to discuss the project. The requested consultation with both tribes has taken place.

1

2

1 Environmental Factors Potentially Affected

2 The environmental factors checked below would potentially be affected by the Proposed
3 Project, as indicated by the checklist on the following pages.

- | | |
|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Noise |
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Population/Housing |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Public Services |
| <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Energy | <input checked="" type="checkbox"/> Transportation |
| <input checked="" type="checkbox"/> Geology/Soils | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Utilities/Service Systems |
| <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Wildfire |
| <input type="checkbox"/> Hydrology/Water Quality | <input checked="" type="checkbox"/> Mandatory Findings of Significance |
| <input type="checkbox"/> Land Use/Planning | |

4

1 Determination

2 The conclusions and recommendations contained herein are professional opinions derived
3 in accordance with current standards of professional practice. They are based on a review of
4 sources of information cited in this document, and the comments received, conversations
5 with knowledgeable individuals; the preparer's personal knowledge of the area; and, where
6 necessary, a visit to the site.

7 On the basis of this initial evaluation:

- ☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.
- ☐ I find that the Proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the Proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Name:

Amber Wallace

3.1 AESTHETICS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

The California Scenic Highway Program, a provision of the Streets and Highways Code, functions to preserve and enhance the natural beauty of California (California Department of Transportation [Caltrans] 2018). The state highway system includes designated scenic highways and those that are eligible for designation as scenic highways. The nearest designated scenic highway is State Route (SR) 160 south of Freeport, approximately 11 miles southeast of the project area (Caltrans 2019).

As described in Chapter 2, *Project Description*, the State Streets neighborhood dates back to the 1920s, with the largest influx of population taking place in the early 1950s. The neighborhood consists of approximately 625 single-family residences situated on paved streets. Many properties have well-established landscape trees, some of which have grown over or beneath the sidewalk and road and may have caused damage to pavement and/or pipelines. The streets have curb, gutter, and sidewalk that are in disrepair due to the age of the construction and disruption by street trees. Two small parks, Fred and Leila Holmes Park and Memorial Park, are located in the midst of the neighborhood, and a small commercial area is located at Maryland Avenue and Virginia Avenue.

a. Adverse effects on scenic vistas (No Impact)

A scenic vista is generally considered a view of an area that has remarkable scenery or a natural or cultural resource that is indigenous to the area. No portion of the project area has been designated as, or is located in the vicinity of, a scenic vista. The project area is an urban residential area. Therefore, there would be **no impact**.

b. Damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway (No Impact)

The nearest state-designated scenic highway is approximately 11 miles southeast along the Sacramento River at Freeport. No scenic resources are visible from the State Streets neighborhood, and no scenic resources are located at or near the project area. Therefore, there would be **no impact**.

c. Degrade the existing visual character or quality of views in non-urbanized areas, or conflict with applicable zoning and other regulations governing scenic quality in urbanized areas (Less than Significant)

The project area is an urban residential neighborhood. The City of West Sacramento has no zoning or other regulations related to scenic quality that would apply to the Proposed Project or the project area. As described in Section 2.5.4, "Potential Need for Tree Removal," some landscape trees have grown over or beneath the sidewalk and road and may have caused damage to pavement and/or pipelines. As a result, some tree roots may be located directly in the path of excavation and construction activities for the Proposed Project.

As part of planning for the Proposed Project, surveyors with the City Capital Projects & Transportation Department compared the project map (Figure 2-2) with a map of trees in the project area. West Coast Arborists then conducted a tree survey of the neighborhood and identified, measured, and assessed the health of the 68 indicated trees in fall 2018 (Figure 2-3). Of these, five trees were recommended for removal regardless of project construction because of location, poor structure, or poor health. Two additional trees were recommended for extensive pruning to reduce safety hazards from poor structure.

During construction, West Coast Arborists would evaluate trees on a case-by-case basis where construction activities are identified as affecting roots or branches. The City would make every reasonable effort to preserve trees where feasible; however, the nature of the pipeline work being proposed allows limited opportunity for modification to avoid impacts. The City would also make replacement trees available to homeowners; more information about this process is provided in Section 3.4, "Biological Resources." As a result, the impact of the Proposed Project on the existing visual character of the project area would be **less than significant**.

1 ***d. New sources of substantial light or glare (Less than Significant)***

2 Construction activities would typically be performed Monday through Friday between 7:00
3 a.m. and 7:00 p.m. as allowed by City ordinance. Work on Saturdays, Sundays, and state
4 holidays may be permitted on a case-by-case basis at the discretion of the City. Therefore,
5 nighttime work would likely be infrequent, and project activities would not generally result
6 in additional lighting in the project area that could affect the surrounding residences. No
7 external changes would result that would involve additional lighting; therefore, no new
8 sources of light or glare would be created. Therefore, this impact would be **less than**
9 **significant.**

1 3.2 AGRICULTURAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the Project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a California Land Conservation Act of 1965 (Williamson Act) contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2

3 Discussion

4 According to the California Department of Conservation (CDOC), no land within or adjacent
 5 to the project area is classified as Important Farmland. The project area is designated as
 6 urban or built-up land (CDOC 2017). The State Streets neighborhood is an urban residential
 7 neighborhood that has been developed since the mid-20th century, and no agricultural areas
 8 are located in the general vicinity.

a, e. Convert farmland to non-agriculture use, or result in conflicts with or loss of agricultural or forest lands (No Impact)

No land within or adjacent to the project area is classified as Important Farmland by the CDOC. The project area is designated as urban or built-up land (CDOC 2017). Although many landscape trees are present within the neighborhood, these trees are ornamental and are not part of a stand intended for commercial production. Therefore, the Proposed Project would not result in the conversion of farmland to non-agricultural use or result in conflicts with or loss of agricultural or forest lands. There would be **no impact**.

b-c. Conflict with existing zoning for agriculture use, Williamson Act Contract, or forest land or timber land (No Impact)

Land use designations in the project area are Low Density Residential (LR); Recreation and Park (RP), for the small park areas; and Commercial (C) for a small commercial area north of the intersection of Maryland Avenue and Virginia Avenue. No agricultural or timberland zoning is present in or near the project area. There would be **no impact**.

d. Result in the loss of forest land or conversion of forest land to non-forest use (No Impact)

Because no forest land or timberland is present in the project area, there would be **no impact**.

1 3.3 AIR QUALITY

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
When available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2 Discussion

West Sacramento is within the Sacramento Valley Air Basin and is under the jurisdiction of the Yolo-Solano Air Quality Management District (YSAQMD). The YSAQMD is part of the Sacramento Federal Non-Attainment Area for ground-level ozone and fine particulate matter (i.e., particulate matter less than or equal to 2.5 microns in diameter, or PM_{2.5}) pollution set by the United States Environmental Protection Agency (USEPA) (YSAQMD 2018).

Air quality plans applicable to the Project site include the Sacramento Regional 2008 National Ambient Air Quality Standards (NAAQS) 8-Hour Ozone Attainment and Reasonable Further Progress (RFP) Plan (YSAQMD 2017) and the PM_{2.5} Implementation/Maintenance Plan (YSAQMD 2013). The 8-Hour Ozone Plan demonstrates how existing and new control strategies will provide the necessary future emission reductions to meet the federal Clean Air Act requirements for reasonable further progress and attainment of the 1997 8-hour ozone NAAQS for the Sacramento region. The PM_{2.5} Plan shows that the region has met the redesignation requirements and requests that the USEPA redesignate the area to attainment. The plan also analyzes measures that were implemented to achieve attainment and that will provide for maintenance of the PM_{2.5} NAAQS.

The YSAQMD's CEQA thresholds of significance are shown in **Table 3-1**.

Table 3-1. Yolo-Solano Air Quality Management District Thresholds of Significance

Pollutant	Threshold
ROG	10 tons/year
NO _x	10 tons/year
CO	Violation of a State ambient air quality standard for CO
PM ₁₀	80 lbs/day

Notes: Emissions of CO from construction activities are not considered to be an issue of concern because construction activities are not considered to be a major source of CO. In addition, the YSAQMD is in attainment status for CO. CO = carbon monoxide; lbs/day = pounds per day; NO_x = nitrogen oxides; PM₁₀ = particulate matter less than or equal to 10 microns in diameter; ROG = reactive organic gases.

Source: YSAQMD 2007

USEPA and California Air Resources Board (CARB) regulate various stationary sources, area sources, and mobile sources. USEPA has regulations involving performance standards for specific sources that may release toxic air contaminants (TACs), known as hazardous air pollutants (HAPs) at the federal level. In addition, USEPA has regulations involving emission criteria for off-road sources such as emergency generators, construction equipment, and vehicles. CARB is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB also establishes passenger vehicle fuel specifications. Airborne Toxic Control Measures (ATCMs), including the following relevant measures, are implemented to address sources of TACs:

- ATCM for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater
- ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- ATCM to Reduce Particulate Emissions from Diesel-Fueled Engines – Standards for Non-vehicular Diesel Fuel
- ATCM for Stationary Compression Ignition Engines
- Asbestos ATCM for Construction, Grading, Quarrying and Surface Mining Operations

CARB has several vehicle fleet regulations that cover fossil-fueled equipment operated at a facility. These regulations require owners of equipment and vehicle fleets to meet fleet-wide specified engine emission levels over time. Obligations include equipment registration, equipment labeling, and reporting requirements. These regulations include the following fleet rules:

- Rule for On-Road Heavy-Duty Diesel-Fueled Public and Utility Fleets,
- Portable Equipment Registration Program (PERP),
- Large Spark-Ignition Engine Fleet Requirements Regulation, and
- In-Use Off-Road Diesel-Fueled Fleets Regulation.

YSAQMD Rule 403 requires that visible dust beyond the property line emanating from the Project will be prevented to the maximum extent feasible. During clearing, grading, earthmoving, or excavation operations, excessive fugitive dust emissions shall be controlled by regular watering or other dust preventive measures using the following procedures:

- All material excavated or graded will be sufficiently watered to prevent excessive amounts of dust.
- Watering will occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day.
- All material transported off-site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
- The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized so as to prevent excessive amounts of dust.

YSAQMD recommends that even projects not exceeding district particulate mater (PM) thresholds should implement best management practices (BMPs) to reduce dust emissions and avoid localized health impacts. The recommended BMPs to reduce PM10 include the following:

- Water all active construction sites at least twice daily.
- Haul trucks shall maintain at least 2 feet of freeboard.
- Cover all trucks hauling dirt, sand, or loose materials.
- Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
- Cover inactive storage piles.
- Sweep streets if visible soil material is carried out from the construction site.

BMPs to reduce construction equipment exhaust focus on strategies that reduce NO_x, ROG, and PM10 emissions. These strategies may include restricting unnecessary vehicle idling to 5 minutes, using reformulated and emulsified fuels, incorporating catalyst and filtration technologies, and modernizing the equipment fleet with cleaner repower and newer engines, among others.

a. Conflict with or obstruct implementation of the applicable air quality plan (Less than Significant)

The Proposed Project would include improvements to utility infrastructure, which would require a maximum excavation depth of 7 feet, as well as rehabilitation of pavement and street surface. Work would be completed within existing right-of-way; however, work within Caltrans right-of-way on Jefferson Boulevard, if necessary, would require an encroachment permit. Construction duration would be approximately 18 months.

As detailed below in item (b), the Proposed Project would not result in significant air quality impacts and would not increase exposure of sensitive receptors to air pollutants. The Proposed Project would not conflict with or obstruct implementation of applicable air quality plans. This impact would be **less than significant**.

b. Cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area (Less than Significant)

The Proposed Project involves repair, replacement, and upgrade of a portion of the City's water and sewer infrastructure; repair and replacement of curb, gutter, and sidewalk; and rehabilitation of deficient street sections throughout the State Streets neighborhood. During construction, short-term degradation of air quality may occur due to the release of particulate emissions generated by excavation. Emissions from construction equipment also are anticipated and would include CO, NO_x, ROG, PM₁₀, PM_{2.5}, and toxic air contaminants (e.g., diesel exhaust particulate matter).

Excavation and roadway construction would involve paving roadway surfaces. Construction-related effects on air quality would be greatest during excavation, handling, and transport of soils. If not properly controlled, these activities would temporarily generate PM₁₀, PM_{2.5}, CO, sulfur dioxide (SO₂), NO_x, and volatile organic compounds (VOC). The main source of fugitive dust would be excavated soils. PM₁₀ emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM₁₀ emissions would also vary depending on soil moisture, the silt content of soil, wind speed, and the amount of equipment operating at the time. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

In addition to dust-related PM₁₀ emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO₂, NO_x, VOCs, PM_{2.5}, and PM₁₀ in exhaust emissions. These emissions would be temporary and limited to the immediate area surrounding the construction site. Areas within 500 feet of CARB-defined sensitive land uses would be designated as no-idle areas where materials storage/transfer and equipment maintenance activities are not permitted to occur.

SO₂ is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Off-road diesel fuel meeting federal standards can contain up to 5,000 parts per million (ppm) of sulfur, whereas on-road diesel is restricted to less than 15 ppm of sulfur. However, under California law and California Air Resources Board regulations, off-road diesel

fuel used in California must meet the same sulfur and other standards as on-road diesel fuel; therefore, SO₂-related issues due to diesel exhaust would be minimal.

Construction activities would take place over an approximately 18-month period, and construction contractors would comply with CARB regulations and YSAQMD rules and BMPs as identified above. No operational activities would involve emissions of criteria pollutants beyond the activities taking place under existing conditions. Therefore, the Proposed Project would not contribute to cumulative impacts related to emission of criteria pollutants. The impact would be **less than significant**.

***c. Expose sensitive receptors to substantial pollutant concentrations
(Less than Significant)***

During project construction activities, diesel particulate matter (DPM) and gasoline fuel combustion emissions that are classified as TACs could be emitted from construction equipment. As described in Section 3.9, "Hazards and Hazardous Materials," petroleum-contaminated soils were identified in one of the geotechnical borings at approximately 11.5 feet depth (Youngdahl 2018). These TACs could be emitted during excavation and hauling work, if not properly handled. Due to the variable nature of excavation activity in any specific location, however, the generation of and/or exposure to TAC emissions would be temporary, especially considering the short amount of time such equipment is typically operating within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations.

Potential toxic emissions from contaminated soil would be minimized through compliance with the rules, regulations, and guidelines identified above and in Section 3.9, "Hazards and Hazardous Materials." These practices would ensure that the amount of construction emissions would be controlled to the extent feasible through a combination of newer equipment, alternative fuel-powered equipment, after-market emission control equipment, equipment maintenance, and work practices to minimize engine use.

Implementing these practices would ensure that health effects from the Proposed Project are minimized for nearby sensitive receptors. The Proposed Project's effect on nearby sensitive receptors due to construction-related air pollutant emissions would be **less than significant**.

***d. Result in other emissions affecting a substantial number of people
(Less than Significant)***

Diesel exhaust from excavation activities and backup generators may generate temporary odors while the project is underway. Once activities are completed, these odors would cease. The Proposed Project would involve removing some sanitary sewer pipelines, asphalt, concrete, and possibly contaminated soil, which may produce additional objectionable odors. The intensity of the odor perceived by a receptor depends on the distance of the receptor from the excavation area and the amount and quality of the exposed material. Excavation and removal work would be temporary at any given location, and the nearest sensitive receptors would be at least 25 feet from the location of pipeline excavation. Impacts related to potential generation of other emissions are thus expected to be temporary and **less than significant**.

1 **3.4 BIOLOGICAL RESOURCES**

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the Project:				
a. 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 the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state HCP?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2 **Discussion**

3 West Coast Arborists conducted a tree inventory on December 12, 2018, to identify trees
 4 within the project area that could potentially be affected by project activities (West Coast
 5 Arborists 2018, provided as Appendix A of this IS/MND). In March 2019, the City Capital

Works & Transportation Department surveyor identified additional trees that could also be potentially be affected. A reconnaissance-level biological site assessment was conducted by a Horizon biologist on March 19, 2019. The purpose of the assessment was to characterize existing conditions and assess the project area's potential to support special-status species. The impact analysis was based on the results of the arborist inventory, reconnaissance-level survey, and information about construction activity detailed in the Chapter 2, *Project Description*.

The Proposed Project is located within a residential neighborhood in West Sacramento. The project area is bounded by Jefferson Boulevard to the east/northeast, Park Boulevard to the west, and Stone Boulevard to the south. Several park/open space areas are present within the project area: Memorial Park is located in the middle southern portion of the project area. Sam Combs Park is located directly south of the project area's southeastern most boundary. Circle Park is a small open space area on Circle Street. Project activities (replacement of water and sewer mains, sewer lining, and curb/gutter/pavement rehabilitation) would take place within the paved streets. Vegetation within the project area boundary consists mostly of ruderal or disturbed areas and landscaped yards. A small area located in the southwestern most section of the project area contains annual grasslands; this area is undeveloped but is proposed for development in the *City of West Sacramento General Plan* (City of West Sacramento 2016). There are no natural communities or aquatic features within the project area. The topography is flat, with an elevation range of approximately 10-15 feet above mean sea level.

a. Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species (Less than Significant with Mitigation)

The potential for special-status plant and wildlife species to occur within or near the project area was evaluated by determining which special-status species occurred in the vicinity of the project area through biological information databases and resources. This information is provided in **Appendix B, Biological Resources Information**.

Special-status species included those listed as endangered, threatened, rare, or proposed for listing by U.S. Fish and Wildlife Service (USFWS) or California Department of Fish and Wildlife (CDFW). California Native Plant Society (CNPS) plant lists were also reviewed. The following sources were reviewed to determine which special-status plant, wildlife, and fish species have been documented to occur in the vicinity of the project site:

- USFWS list of federally listed endangered and threatened species that occur within the vicinity of the proposed project (Appendix B) (USFWS 2019a);
- California Natural Diversity Database (CNDDDB) queries for the U.S. Geological Survey (USGS) 7.5-minute quadrangle containing the project area and the quadrangles immediately adjacent to it: Davis, Sacramento West, Sacramento East, Grays Bend, Taylor Monument, Rio Linda, Saxon, Clarksburg, and Florin (Appendix B) (CDFW 2019);
- California Native Plant Society's (CNPS's) *Inventory of Rare and Endangered Plants of California* (CNPS 2019) and California Rare Plant Rank (CRPR) listing (Appendix B) (CNPS 2019);

- USFWS Critical Habitat Portal (USFWS 2019b)
- National Wetland Inventory (NWI) (USFWS 2019c)
- EcoAtlas (California Wetlands Monitoring Workgroup 2019)
- Western Bat Species Regional Priority Matrix (Western Bat Working Group 2013)

The Yolo Habitat Conservancy is a joint powers agency comprising the County of Yolo (County) and the cities of Davis, West Sacramento, Winters, and Woodland, along with the University of California, Davis, as an ex-officio member of the Board of Directors (Yolo Habitat Conservancy 2019). The Yolo Habitat Conservancy has prepared the Yolo Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP), a model conservation plan to provide Endangered Species Act permits and associated mitigation for infrastructure (e.g., roads, bridges, and levees) and development activities (e.g., agricultural facilities, housing, commercial buildings) taking place over the next 50 years in Yolo County. The HCP/NCCP was completed in 2018 and implementation began in January 2019. The Yolo HCP/NCCP coordinates mitigation to maximize benefits to 12 identified sensitive species, as well as conserve 8,000 acres of additional habitat conservation beyond mitigation.

Special-status Plant Species

Based on searches of the CNDDDB, USFWS Information for Planning and Consultation Report (IPaC), and CNPS Inventory of Rare and Endangered Plants, 26 sensitive plant species and four natural communities were identified as historically occurring within 5 miles of the project area or having potential to occur in the project vicinity (CDFW 2019; USFWS 2019a, 2019b; CNPS 2019). **Figure 3-1** shows sensitive plant species that currently or historically occur within 5 miles of the project area. None of these plant species or natural communities have potential to occur in the project area due to the lack of suitable habitat (Appendix B, Table B-1). The project area is not within an area designated as critical habitat for any plant species (**Figure 3-2**).

No special-status plant species were observed during the reconnaissance-level site visit; however, a protocol-level plant survey was not conducted. The project area occurs mostly within a residential neighborhood that lacks native vegetation communities. Vegetation within the project area consisted of mostly ruderal/disturbed vegetation and landscaped yards; vegetation in the southwestern portion of the project area was undeveloped non-native annual grassland. Some of the non-native species observed around the project area included foxtail barley (*Hordeum murinum* ssp. *leporinum*), cheeseweed (*Malva parviflora*), Bermuda buttercup (*Oxalis pes-caprae*), common stork's bill (*Erodium cicutarium*), and henbit dead-nettle (*Lamium amplexicaule*).

Because the project area occurs mostly within a developed neighborhood, it would not support suitable habitat for special-status plant species. The southwestern section of the project area contains non-native annual grassland; this area has been highly disturbed and would also not support suitable habitat for special-status plants. Therefore, no impacts to special-status plants would occur as a result of the Proposed Project.

Special-status Wildlife Species

Fifty special-status wildlife species (nine invertebrates, two amphibians, two reptiles, seven fish species, 25 birds, and five mammals) were identified in database searches associated with the Proposed Project (CDFW 2019; USFWS 2019a) or have been identified as historically

occurring within 5 miles of the project site (**Figure 3-3**). These species are documented in Appendix B, Table B-1, including their potential for occurrence within the project area. Of these, 10 wildlife species have potential to occur within the project area due to the presence of suitable or marginally suitable habitat. No special-status wildlife species were observed during the biological reconnaissance survey; however, no focused or protocol-level wildlife surveys were conducted. Other wildlife species that were observed during the survey included yellow-billed magpie (*Pica nutalli*), American crow (*Corvus brachyrhynchos*), California scrub-jay (*Aphelocoma californica*), mourning dove (*Zenaida macroura*), house finch (*Haemorhous mexicanus*), northern mockingbird (*Mimus polyglottos*), American robin (*Turdus migratorius*), turkey vulture (*Cathartes aura*), cedar waxwing (*Bombycilla cedrorum*), red-shouldered hawk (*Buteo lineatus*), domestic cat (*Felis catus*), and California ground squirrel (*Otospermophilus beecheyi*). The project site is not within an area designated as critical habitat for any wildlife species (Figure 3-2).

Special-status Invertebrates

Of the nine special-status species identified through the database searches as having potential to occur within the project area, suitable habitat exists for only one species: the western bumble bee (*Bombus occidentalis*) (see Appendix B). The western bumble bee is found within a variety of habitats, including urban parks and open grassy areas, and could utilize tree cavities or rodent burrows within the project area for nesting. The western bumble bee could also forage in landscaped yards and other vegetation within the project area. The only CNDDDB database record for this species within the project vicinity indicates that it was observed west of the project area near Davis. This species is being monitored on the CNDDDB due to a decline in numbers and distribution; however, the species does not have legal protection status under the California or federal Endangered Species Act. The Proposed Project would have no impact on special-status invertebrates.

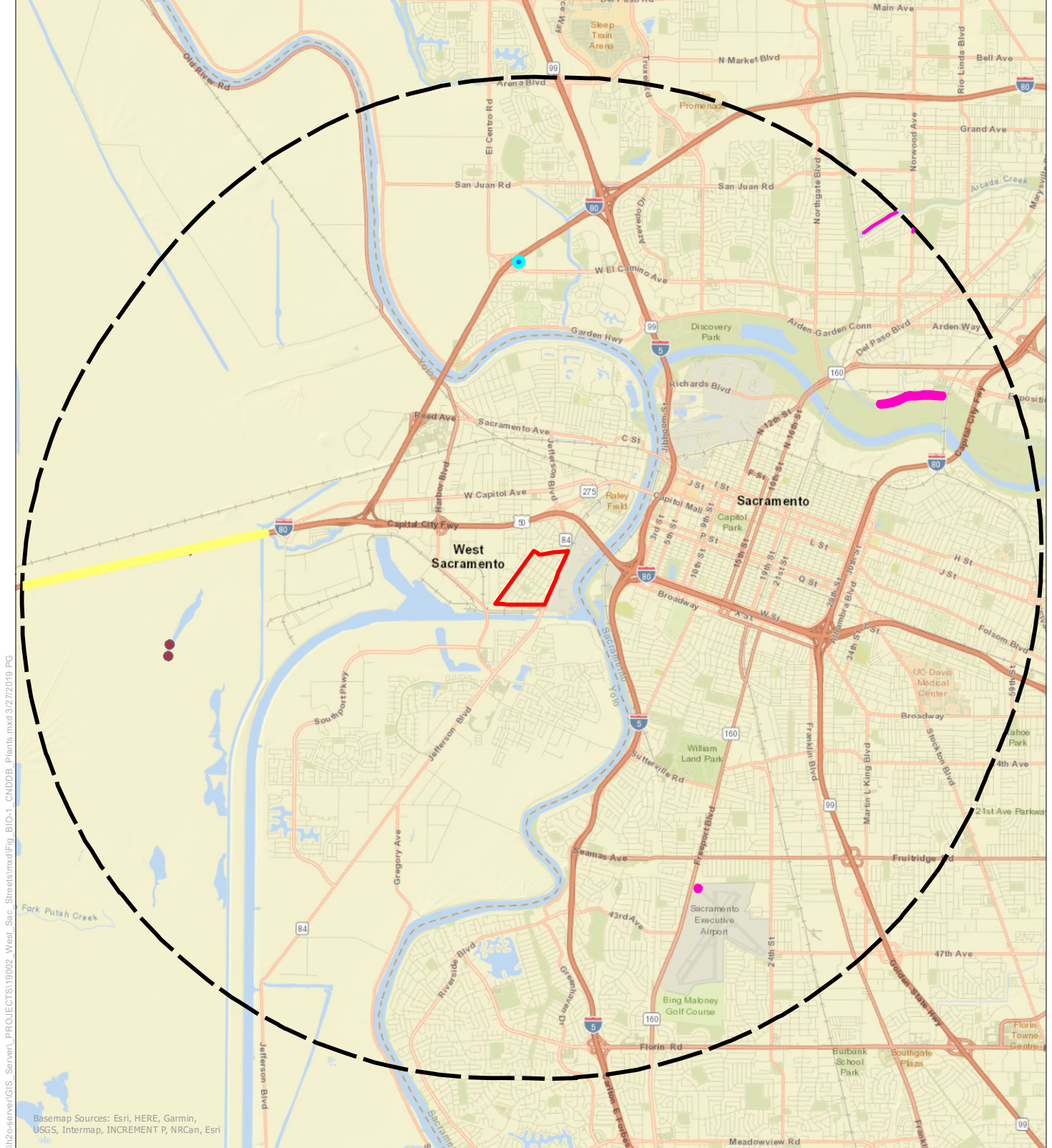
One species, the Antioch multilid wasp (*Myrmosula pacifica*), appeared in the CNDDDB database search but is not included in Appendix B. No information is available regarding this species' occurrences or habitat requirements, and therefore it is not discussed further in this document.

Special-status Amphibians and Reptiles

No suitable habitat exists within the project area for the two species of special-status amphibians or two species of reptiles (Appendix B) that were identified through the database searches as having potential to occur in the project area. The Proposed Project would have no impact on special-status amphibian and reptile species.

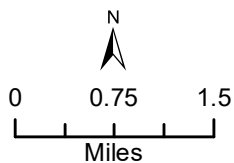
Special-status Fish

No suitable aquatic habitat for the special-status fish species identified in the database searches is present within the project area. The nearest aquatic habitat is located approximately 260 feet south of the project area in the Sacramento River Deep Water Ship Channel. At its closest, the project area boundary is approximately 1,100 feet east of the Sacramento River. Both the Deep Water Ship Channel and the Sacramento River contain suitable habitat for six of the seven fish species listed in Appendix B. The project area, however, is separated from the Deep Water Ship Channel by a strip of land between two sets



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Basemap Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri



Special-status Plant Species



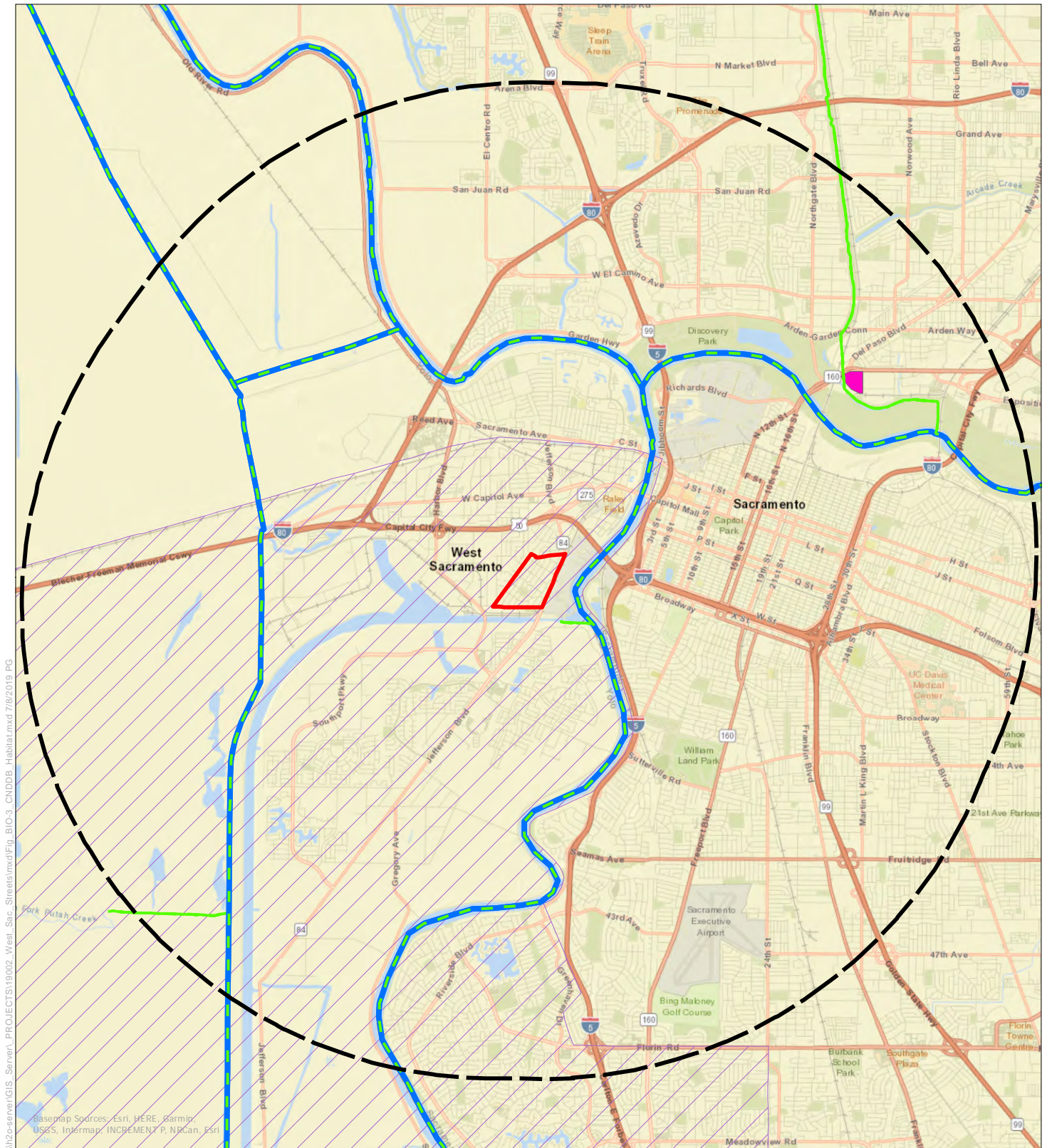
- Ferris' milk-vetch
- Sanford's arrowhead
- Suisun Marsh aster
- woolly rose-mallow

Source: CDFW CNDDDB, March 2019 update.

Figure 3-1.
CNDDDB Occurrences of
Special-Status Plants within
5 Miles of the Proposed Project

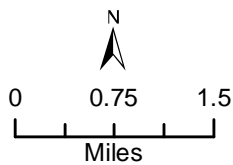
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Basemap Sources: Esri, HERE, Garmin,
USGS, IntraMap, INCREMENT P, NRCan, Esri



- Critical Habitat**
- Delta smelt
 - Valley elderberry longhorn beetle
 - Chinook salmon
 - Steelhead

Source: USFWS 2019.

Figure 3-2.
Critical Habitat within
5 Miles of the Proposed Project

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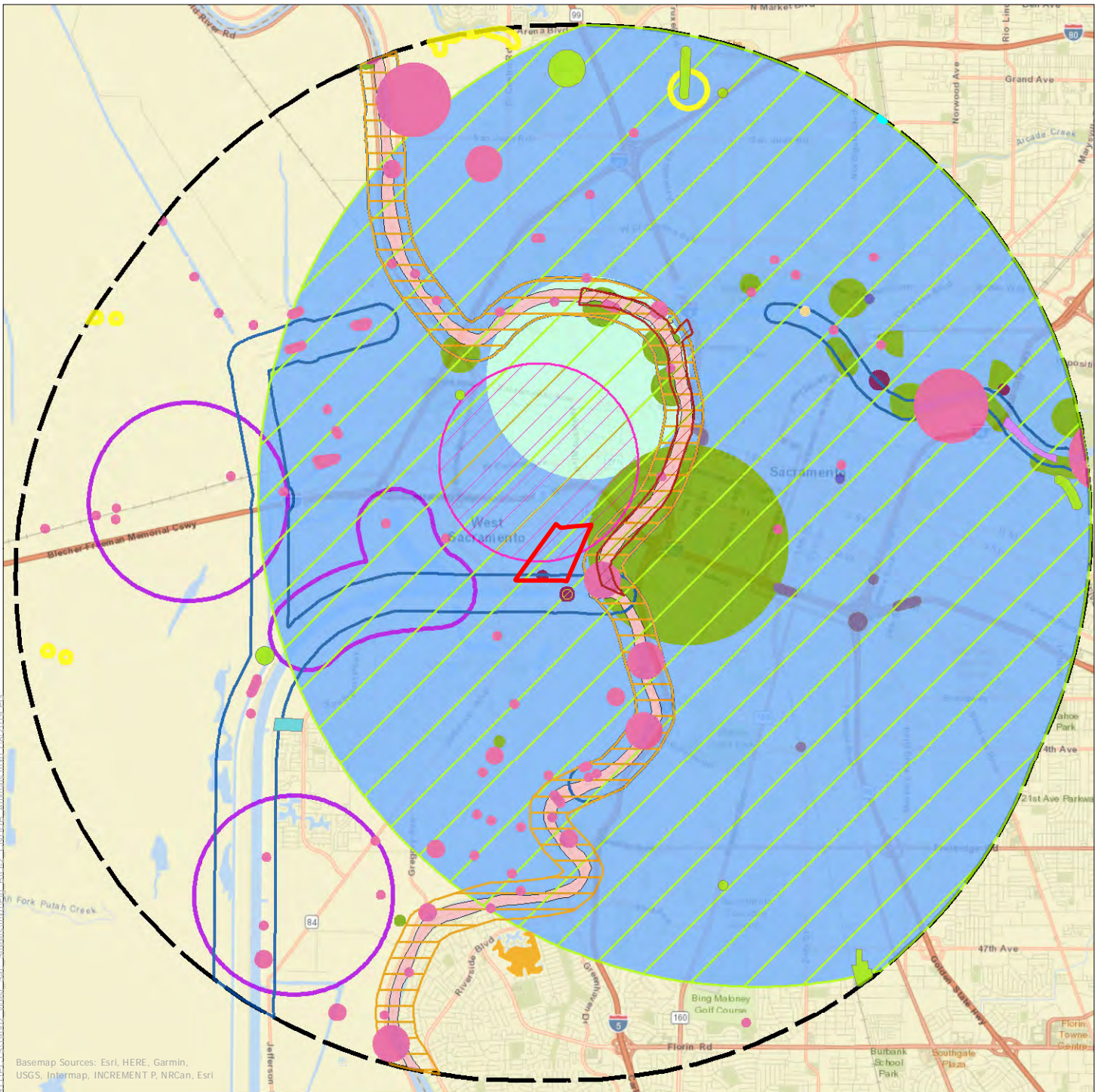
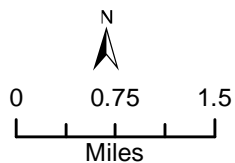


Figure 3-3.

**CNDDDB Occurrences of Special-status Animals
within 5 Miles of the Proposed Project**

Project Area
 5-mile buffer



Special-status Animal Species

California black rail
 Cooper's hawk
 Sacramento Valley tiger beetle
 Sacramento perch
 Swainson's hawk
 bank swallow
 burrowing owl
 chinook salmon - Central Valley spring-run ESU

chinook salmon - Sacramento River winter-run ESU
 giant gartersnake
 great blue heron
 hoary bat
 longfin smelt
 purple martin
 steelhead - Central Valley DPS
 tricolored blackbird

vernal pool fairy shrimp
 white-tailed kite
 Sacramento splittail
 song sparrow ("Modesto" population)
 western yellow-billed cuckoo
 valley elderberry longhorn beetle
 least Bell's vireo

**State Streets
Infrastructure Projects**

Source: CDFW CNDDDB, March 2019 update.

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of railroad tracks and a vegetated riparian bank, and is separated from the Sacramento River by Jefferson Boulevard and industrial development. These waterways would not be affected by project activities. Therefore, the Proposed Project would have no impact on special-status fish.

Special-status Birds

Many species of birds utilize the project area and surrounding areas to forage and/or nest. The project area contains marginal to suitable habitat for eight of the 25 species of special-status birds listed in Appendix B: Cooper's hawk (*Accipiter cooperii*), great egret (*Ardea alba*), great blue heron (*Ardea herodias*), black-crowned night heron (*Nycticorax nycticorax*), Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), merlin (*Falco columbaris*), and purple martin (*Progne subis*). Project construction activities would take place within a developed residential neighborhood that contains many suitable nesting trees and foraging habitat. Additionally, special-status birds and other birds protected under the California Department of Fish and Game Code (F&G Code), and the Migratory Bird Treaty Act (MBTA) could use nearby riparian, open space, and aquatic areas (e.g., Deep Water Ship Channel and Sacramento River) for nesting and foraging.

Suitable nesting and foraging habitat exists within and near the project area for the Cooper's hawk. Cooper's hawks could nest in trees within the project area and also prey upon the many medium-sized birds that occur around and in the project area. The nearest CNDDDB occurrence records of Cooper's hawks are approximately 2.7 miles and 4 miles northeast of the project area.

Due to the constant human presence within the project area, it is not expected that the great egret, great blue heron, and the black-crowned night heron would choose to establish nesting rookeries in trees within the project area boundaries (Appendix B). These species are typically sensitive to human disturbance and they would likely be deterred by the high level of human presence within the project area. These species would not be expected to utilize the project area for foraging as they forage in aquatic areas, and would be expected to be found foraging near the Deep Water Ship Channel or Sacramento River located south and east of the project area, respectively. No evidence of an established nesting rookery was observed in any of the trees within the project area during the reconnaissance survey. No CNDDDB occurrence records of great egrets or black-crowned night herons exist within 5 miles of the project area; however, one CNDDDB occurrence of a great blue heron rookery has been documented approximately 3 miles northeast of the project area.

Suitable nesting habitat for Swainson's hawks exists within the southwestern portion of the project area. This area contains disturbed annual grasslands and oak trees and is near the riparian area near the Deep Water Ship Channel (Appendix B). Swainson's hawks could utilize the oak trees and riparian areas to nest or roost; however, due to the proximity of railroad tracks directly south of the oak trees and the adjacent residences, it is expected that hawks would choose to nest in the riparian area in preference to the project area. This species also would not be expected to forage within the project area as Swainson's hawks prefer more open grasslands and agricultural fields in which to find prey. The nearest CNDDDB occurrence was reported approximately 0.5 mile east of the project area. The City of West Sacramento is a participant in the Yolo HCP/NCCP, which covers impacts from infrastructure and development activities on Swainson's hawk.

Suitable nesting habitat exists for white-tailed kite within the trees in the project area. White-tailed kites would not be expected to forage within the residential neighborhood in the project area as they prefer more open grasslands and meadows, such as the open fields located southwest of the Deep Water Ship Channel. A 2017 CNDDDB occurrence documented a white-tailed kite nest in an oak tree in the backyard of a residence on the south side of 19th Street between Pennsylvania Avenue and Alabama Avenue. The CNDDDB record indicated that a near-fledgling white-tailed kite was found deceased on the ground near the nest tree (CDFW 2019). The City of West Sacramento is a participant in the Yolo HCP/NCCP, which covers impacts from infrastructure and development activities on white-tailed kite.

The project area provides a suitable prey base for the merlin due to the abundance of small birds present; however, it is expected that this species would utilize the riparian area near the Deep Water Ship Channel for foraging and roosting in preference to the project area as this species prefers habitats near water. Merlin are a fairly uncommon visitor to California and they do not nest in California. There are no CNDDDB occurrences of merlin within 5 miles of the project area.

Although it is not expected that purple martins would utilize the project area for nesting, they could forage in the area. Purple martins are known to forage in a wide variety of habitats, including over cities and parks. Numerous CNDDDB occurrences report purple martins nesting under long overpasses and elevated freeways in “weep holes” in Sacramento (CDFW 2019). The nearest CNDDDB occurrence was reported approximately 1.5 miles northeast of the project area.

Most native migratory birds and active nest sites are protected under MBTA; active bird nests are protected by F&G Code Section 3503; and raptor nests are protected under F&G Code Section 3503.5. The various trees located within the project area have potential to be used by nesting raptor species, such as Cooper’s hawk and white-tailed kite, as well as other nesting birds, such as the American robin and house finch. As described in item 3.4(e) below, a review of the project area by a City surveyor and the City arborist identified 79 trees within the project area as having the potential to be removed, trimmed, or pruned as result of construction activities (Appendix B). Most of these trees are anticipated to remain; however, removal or disturbance of vegetation and trees within the project area could directly affect foraging and nesting habitat for special-status birds and other birds protected under the MBTA and F&G Code. Construction activities could also disturb breeding, nesting, and foraging birds by generating noise and creating visual distractions that could affect nesting birds within the project area and adjacent areas to the point of resulting in nest abandonment and/or failure. Impacts on an active nest of a protected bird species during construction would violate protections under MBTA and F&G Code, and such an impact would be considered significant.

With implementation of **Mitigation Measures BIO-1a (Compliance with the Requirements of the Yolo HCP/NCCP for Swainson’s Hawk and White-Tailed Kite) and BIO-1b (Conduct Preconstruction Surveys for Nesting Birds and Implement Non-disturbance Buffer Areas)**, the Proposed Project would avoid impacts on nesting birds by identifying and avoiding disturbance to occupied nests.

Mitigation Measure BIO-1a. Compliance with the Requirements of the Yolo HCP/NCCP for Swainson's Hawk and White-Tailed Kite

The Yolo HCP/NCCP contains avoidance and minimization measures that the City of West Sacramento shall adopt for Swainson's hawk and white-tailed kite. Specifically, implementation of Avoidance and Minimization Measure 15 in the Yolo HCP/NCCP will:

- Identify and quantify (in acres) Swainson's hawk and white-tailed kite habitat in and within 1,320 feet of the project footprint, and identify suitable nest trees.
- Avoid potential nesting trees, with 1,320-foot setbacks from the trees during nesting, to the extent practicable.
- During construction, if activities would occur within 1,320 feet of nesting habitat between March 15 and August 30, preconstruction activities would be conducted for active nests consistent with the Swainson's Hawk Technical Advisory Committee (2000). For operation and maintenance, if activities involve pruning or removal of suitable nest trees, preconstruction activities will be conducted for active nests, consistent with the Swainson's Hawk Technical Advisory Committee (2000).
- For construction activities occurring from March 15 to August 30, no activities will occur within 1,320 feet of active nests, unless a qualified biologist has determined that the young have fledged and the nest is no longer active or the Yolo Habitat Conservancy, USFWS, and CDFW agree to a lesser buffer distance. For operations and maintenance, if occupied nest sites are present within 1,320 feet, tree pruning and removal will be deferred until the nest is no longer being used by adults and young.

Mitigation Measure BIO-1b. Conduct Preconstruction Surveys for Nesting Birds and Implement Non-disturbance Buffer Areas.

To the extent feasible, all vegetation removal shall occur between September 1 and January 31, outside the bird/raptor nesting season, to avoid potential impacts on nesting birds. If construction activities (including staging and tree or vegetation removal) will occur during the nesting season (February 1 through August 31), the City shall retain a qualified wildlife biologist to conduct focused surveys for active bird nests in project areas currently under construction and within a 250-foot buffer no more than 7 days before initiation of construction activities. If no work occurs for a period of 5 days during the nesting season, repeat surveys must be performed before work within 250 feet of suitable nesting substrate is resumed. If the survey indicates that no active nests are present, no further mitigation shall be required.

If an active bird or raptor nest is located during preconstruction surveys, a qualified biologist shall establish appropriate species-specific non-disturbance buffer zones in consultation with USFWS and/or CDFW (typical buffers are 250 feet for passerines and 500 feet for raptors). No project-related activity shall commence within the non-disturbance buffer until the qualified biologist confirms that the nest is no longer active.

Special-status Mammals and Bats

The American badger was identified in the CNDDDB as having potential to occur in the vicinity of the project area; however, this species would not be expected to occur within the project area due a lack of suitable habitat. Three bat species were identified in the CNDDDB: pallid bat (*Antrozous pallidus*), silver-haired bat (*Lasionycteris noctivagans*), and hoary bat (*Lasiurus cinereus*). One species, western red bat (*Lasiurus blossevillei*), was identified through personal communication with bat biologist Kim Fettke (pers. comm., April 29, 2019). Appendix B, Table B-1, discusses these four bat species and their potential to occur within the project area. Additionally, there is potential for other California bat species to occur within the project area. Currently, little is known about the range and distribution of California bat populations and their migratory routes, so it is difficult to rule out any species until a habitat assessment (see Mitigation Measure BIO-2b) is performed.

Most California bat species form nursery colonies in the summer that number from several to hundreds of thousands of female bats and their young (Zeiner et al. 1988). Several of these colonial species have also been documented coming together in hibernacula during the winter (Weller et al. 2018). This colonial trait can make local populations of these species, such as silver-haired bat, particularly vulnerable to roost removal or disturbance, especially during these sensitive seasons. Removal of an occupied maternity roost (e.g., via tree felling) could result in the fatality of an entire colony as bats retreat rather than flush from the roost. Likewise, disturbance of an occupied maternity roost (e.g., via construction activities) could result in the abandonment of an entire generation of nonvolant pups (pups that cannot fly). Removal of an occupied hibernaculum could result in the fatality of an entire colony of nonvolant bats in hibernation or torpor. Additionally, disturbance of an occupied hibernaculum could arouse bats in hibernation or torpor during the winter, depleting their energy reserves and potentially resulting in death.

Roosts can be an essential and limiting resource for colonial bat species. Colonial bats exhibit high roost fidelity, using the same roosts for generations, and the parameters for suitable roosting conditions (e.g., thermal stability) can be narrow. As such, colonial bat roosts are considered a sensitive resource by CDFW.

Two generally-solitary foliage-roosting bat species are known to roost in the project study area. The hoary bat typically roosts alone except during the maternity season when females roost with their pups. Likewise, the western red bat typically roosts alone, but several females and their young have been documented forming small maternity colonies.

No bats or their sign (e.g., guano) were observed within the project area during the reconnaissance survey; however, a focused bat habitat assessment and focused bat surveys have not been conducted in the project area for potential roosting habitat. As such, use of the trees within the project area as roosting habitat cannot be ruled out. Construction activities that could cause temporary disturbance or permanent removal of trees that are used by colonial roosting bats, particularly maternity roosts or hibernacula, could result in mortality or injury to a large number of bats. Such mortality and habitat loss could be a substantial adverse effect and could cause a local bat population to drop below self-sustaining levels, resulting in a significant impact. Temporary construction disturbance or permanent tree removal during the maternity season could also impede the use of a native wildlife nursery, causing bats that roost in small numbers to abandon their nonvolant pups, which would result in a significant impact. Implementation of **Mitigation Measure BIO-2a (Remove or**

Disturb Trees Outside of the Maternity Season), Mitigation Measure BIO-2b (Conduct a Habitat Assessment and Surveys for Bats), and if necessary, Mitigation Measures BIO-2c (Avoid and Minimize Impacts on Bats Roosting in Structures), and Mitigation Measure BIO-2d (Prepare Bat Roost Compensation Plan and Provide Replacement Roosts for Roosts That Cannot Be Avoided) would reduce impacts on bats by identifying the location of bat roosts and implementing measures to avoid and minimize disturbance to roosting bats. Therefore, the impact of the Proposed Project on bats would be less than significant with mitigation.

Mitigation Measure BIO-2a. Remove and Disturb Trees Outside of the Maternity and Winter Seasons

To avoid disturbing or eliminating occupied maternity roosts or winter roosts, all tree removal and pruning shall occur outside of the maternity season (May 1 – August 31) and winter season (November 1 – March 1) to the extent feasible.

Mitigation Measure BIO-2b. Conduct a Habitat Assessment and Surveys for Bat Roosts

Before the commencement of tree removal, a CDFW-approved biologist with experience identifying bat roosts will conduct a daytime habitat suitability assessment to determine if any of the trees in the project area that may be removed, trimmed, or pruned contain potential colonial bat roosting (e.g., large tree cavities, basal hollows, loose or peeling bark, larger snags, palm trees with intact thatch) or indications of bat use (e.g., occupancy, guano, staining, smells, or sounds). Each tree shall be rated on a scale of 1-3: 1 = unsuitable/low suitability; 2 = potentially suitable; and, 3 = identifiable roost. If all trees within the project area are rated 1, no additional measures will be taken. If any trees are rated 2, a CDFW-approved biologist with experience surveying tree roosts shall conduct evening bat surveys at potential sites to assess roosting patterns during the maternity season. Evening emergence surveys will be conducted using night-vision technology and acoustic monitoring from one half hour before sunset to at least 1 hour after sunset for a minimum of two nights. The survey methodology will be submitted and approved by CDFW prior to the survey. If the bat biologist determines that any of the trees rated 2 are identifiable roosts, their rating will be changed to 3. If any trees are rated 3, the City shall implement Mitigation Measure BIO-2c.

Mitigation Measure BIO-2c. Avoid and Minimize Impacts on Bats and Bat Roosts

The City shall avoid removal and disturbance of all bat roosts within the project area to the greatest extent feasible. If it is not possible to avoid the disturbance or removal of all roosts, alternative impact minimization measures will be developed according to specific site conditions and degree of impact (e.g., species, size of colony, season of use). These measures may include roost exclusion prior to the sensitive seasons of use, tiered tree pruning or removal under the supervision of a qualified biologist, and compensatory roost replacement. A plan detailing the methods and specifications of the minimization measures will be prepared by a qualified bat biologist and submitted to CDFW for approval prior to implementation, and prior to the start of tree removal or other construction disturbance.

If roosts are identified that cannot be avoided or it is determined that construction activities may cause roost abandonment, the City shall implement Mitigation Measure BIO-2d.

Mitigation Measure BIO-2d. Prepare Bat Roost Compensation Plan and Provide Replacements for Roosts That Cannot Be Avoided

If bat roosts cannot be avoided or if it is determined that construction activities may cause roost abandonment, the City shall refrain from such activities until roost sites have been replaced.

For replacement of roost sites established in the existing trees, the City shall retain a qualified bat biologist to develop a Bat Roost Compensation Plan that addresses the use of the trees, identifies appropriate compensation measures commensurate with the size of the colony, and provides for no net loss in roosting areas for the bats.

Conclusion

As described above, the Proposed Project would have no impact on special-status plants, natural communities, amphibians and reptiles, and fish. Impacts on invertebrates would be less than significant. Impacts on nesting birds would be reduced to a less-than-significant level with implementation of Mitigation Measure BIO-1, requiring the City to identify and avoid direct and indirect impacts on occupied nests. Bats have the potential to be affected by construction activities such as trimming or removal of trees in which they roost, causing roost abandonment; Mitigation Measures BIO-2a, BIO-2b, BIO-2c, and BIO-2d provide a process for the City to avoid, minimize, and compensate for any impacts on these species. Overall, the impact on special-status species would be **less than significant with mitigation**.

b. Substantial adverse effect on any riparian habitat or other sensitive natural community (No Impact)

No riparian habitat or sensitive natural communities occur within the project area. Riparian habitat does exist approximately 170 feet south of the project area boundary; however, the project area is separated from the riparian habitat by two sets of railroad tracks and a strip of land between the tracks. **No impact** on riparian habitat or other sensitive natural communities would occur as part of the Proposed Project.

c. Substantial adverse effects on state or federally protected wetlands (No Impact)

A search of the USFWS National Wetlands Inventory (USFWS 2019c) and the California EcoAtlas (California Wetlands Monitoring Workgroup 2019) revealed no state or federally protected wetlands within the project area, and no potential wetland features or waters of the U.S. were observed within the project area during the March 19, 2019 site visit. The nearest water features to the project area are the Deep Water Ship Channel, approximately 260 feet south of the project area, and the Sacramento River, approximately 1,100 feet to the east. According to mapping from the California Aquatic Resources Inventory (San Francisco Estuary Institute 2017) (depicted in **Figure 3-4**), the Deep Water Ship Channel is separated from the project area by two sets of railroad tracks and a riparian habitat corridor and has

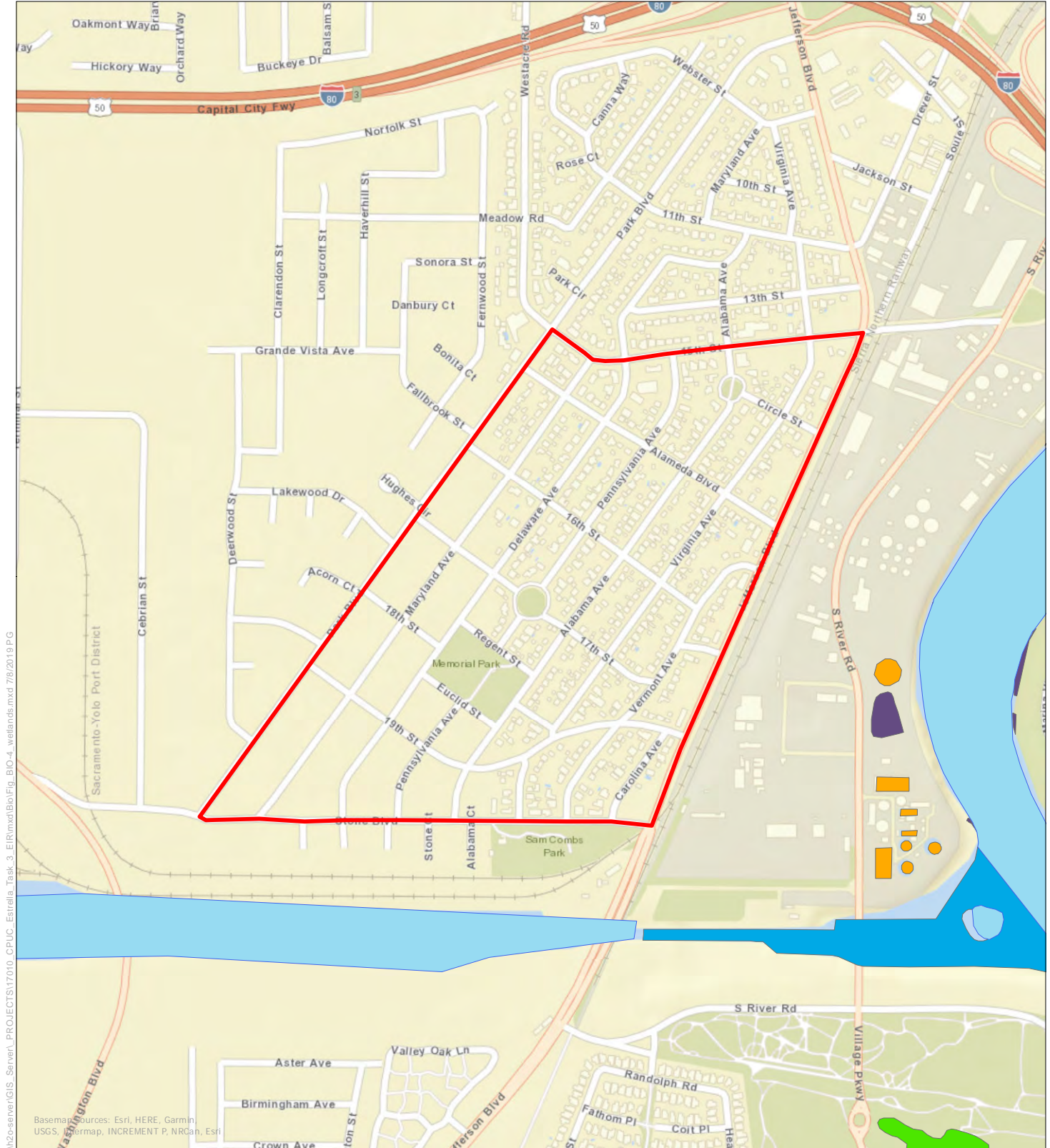
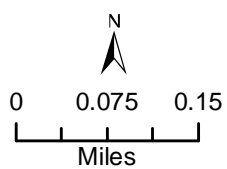


Figure 3-4.
Wetlands in the Vicinity
of the Proposed Project



Project Area

Wetland Type

- | | |
|---|---|
| Depressional | Riverine |
| Depressional Forested | Riverine Unnatural |
| Lacustrine Unnatural | |

Source: SFEI 2017, California Aquatic Resource Inventory (CARI).

1

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no identified wetland features. The Sacramento River is separated from the project area by industrial development; several minor wetland features have been identified near the river. Because of the distance and intervening features, it is unlikely that sediment or pollutant (e.g., fuel, oil) runoff from construction-related ground disturbance and equipment operations would reach the Deep Water Ship Channel or Sacramento River. Nevertheless, the City would be required to comply with conditions of the National Pollutant Discharge Elimination System (NPDES) permitting process, including BMPs to avoid and minimize any impacts as a result of sediment or pollutant runoff to jurisdictional waters. As discussed in Section 3.10, "Hydrology and Water Quality," the NPDES requires implementation of a stormwater pollution prevention plan (SWPPP) to prevent discharges of sediment and other construction-related pollutants to surface waters. Because the Proposed Project does not support any state or federally protected wetlands and no impact on the Deep Water Ship Channel or Sacramento River would occur, the Proposed Project would result in **no impact** on state or federally protected wetlands.

d. Substantial interference with wildlife movement, established wildlife corridors, or the use of native wildlife nursery sites (Less than Significant with Mitigation)

The project area is located within a residential neighborhood and is surrounded by developed urban areas to the north, east, and west. The south side of the project area is bounded by two sets of railroad tracks, a strip of riparian habitat, and the Deep Water Ship Channel.

Implementation of the Proposed Project would not interfere substantially with the movement of any native resident or migratory wildlife species because the project area supports limited to no value as a wildlife movement corridor. The area does not provide an important connection for any other special-status species or any areas of natural habitat that would otherwise be isolated, nor does it occur along any established wildlife migration routes. Therefore, the Proposed Project would not interfere with the movement of any native or migratory wildlife species. The Sacramento River corridor, located approximately 1,100 feet to the east, and the Deep Water Ship Channel and established riparian habitat that borders it, located approximately 160 feet to the south, are examples of migration corridors within the vicinity of the project. Neither of these features would be affected by project activities.

It is expected that many nesting birds use the trees within the project area for nesting. If birds nest within the project area, the project area could be considered as a native wildlife nursery. As discussed above Mitigation Measure BIO-1 would ensure that preconstruction surveys are conducted for nesting birds and buffers are implemented, if necessary, to avoid or minimize potential impacts on nesting birds. In addition, the trees within the project area may provide nursery sites for bats. If bats use the trees within the project area to raise their young, the project area could be considered a native wildlife nursery area for bats. As discussed in item 3.4(a) above, Mitigation Measures BIO-2a, BIO-2b, and BIO-2c would ensure that impacts on special-status bats would be less than significant. Overall, the impact of the Proposed Project on wildlife corridors and nurseries would be **less than significant with mitigation**.

e. Conflict with local policies or ordinances protecting biological resources (Less than Significant with Mitigation)

The City of West Sacramento's Tree Preservation Ordinance in Chapter 8.24 of the Municipal Code regulates the removal and protection of heritage, landmark, native oak, and street trees within the city on public and private property. On December 12, 2018, West Coast Arborists identified, measured, and assessed the health of 68 trees identified by a City surveyor as potentially being affected by construction activities within the project area. Eleven additional trees were later added to the evaluation. A total of 21 species of trees were identified (Appendix A, *Arborist Report*). Each tree was first identified to determine the species, and the trunk diameter was measured 4.5 feet above grade (known as diameter at standard height, or DSH). The vigor/ structural condition, crown spread, recommended maintenance, distance to hardscape, presence of overhead utilities, location, and estimated height range of each tree were also evaluated (Appendix A).

Of the 79 trees that were evaluated, the arborist report recommended that three London Plane (*Platanus X hispanica*), one Box Elder (*Acer negundo*), and one Silver Maple (*Acer saccharinum*) should be removed to grade level, regardless of whether they would be affected by construction, because their close proximity to high voltage lines, poor crown structure, and declining health posed a risk to public safety (Appendix A). Additionally, the arborist recommended that greater-than-routine pruning should be conducted for one American Sweetgum (*Liquidamber styraciflua*), one Chinese Hackberry (*Celtis sinensis*), one Modesto Ash (*Fraxinus velutina* 'Modesto'), one Siberian Elm (*Ulmus pumila*), and one Silver Maple (*Acer saccharinum*) because their poor crown structure was causing hazardous conditions. The remaining 64 trees were recommended for routine maintenance/grid trimming and did not show any signs of significant structural defects or decline in vigor. No trees that were evaluated within the project area meet the classification in the City's Tree Preservation Ordinance of a heritage, landmark, or native oak tree. Nevertheless, protection is still warranted for street trees, defined in the ordinance as any tree growing or placed within the tree maintenance strip or public right-of-way (within 12.5 feet of the curb or edge of the paved portion of the street if the street does not have a curb). Where landscape strips are 7 feet wide or wider, any trees removed during construction would be replanted.

Because of the large number of trees in the State Streets neighborhood, construction activities to replace water and sewer lines or retrofit curb, gutter, and street surface would likely affect some street trees and landscaping trees. Under the Tree Preservation Ordinance, removal or any activities (e.g., root trimming) that would interfere with or retard the natural growth of street trees would be considered a significant impact. Implementation of **Mitigation Measures BIO-3a (Minimize Potential Impacts on Trees)** and **BIO-3b (Replace Trees That Are Removed)** would ensure that conflicts with the City of West Sacramento's Tree Preservation Ordinance remain **less than significant with mitigation**.

Mitigation Measure BIO-3a: Minimize Potential Impacts on Trees

Upon receiving and reviewing detailed specifications (site plans) for the Proposed Project's construction activities, the City shall provide plans to the arborist for review to identify with more certainty the trees that are likely to be affected by construction. During construction, the arborist will work on-site with City staff to identify which trees will need to be removed or trimmed/pruned. Existing trees will be avoided and retained where practicable, using techniques such as the following:

- Design sidewalks to meander around the existing trees.
- Install water lines above or below tree roots to avoid the need to trim roots.
- Because vertical placement of sewer lines is not flexible, rehabilitation of sewer lines rather than replacements will be implemented when possible.

The City shall mitigate for trees that are removed by implementing Mitigation Measure BIO-3b.

Mitigation Measure BIO 3b: Implement Mitigation for Removed Trees

All impacts on trees resulting from trimming, pruning, or removal due to construction activities must be reviewed by a City Tree Administrator if the tree's diameter at breast height (dbh) is greater than 2 feet for non-native oak and 16 inches for native oak. If the City's arborist indicates that a tree within the City right-of-way on private property must be removed, the homeowner will be notified of the decision and may choose to obtain a free replacement tree through the City Parks and Recreation Department's West Sacramento Tree Program (information is available at www.cityofwestsacramento.org/government/departments/parks-recreation/trees).

The homeowner may choose from the City's list of replacement trees: Emerald Sunshine (*Ulmus propinqua*), Golden Rain (*Koelreuteria paniculata*), Trident maple (*Acer buergerianum*), Texas red oak (*Quercus buckleyi*), Deodar cedar (*Cedrus deodara*), or Cork Oak (*Quercus suber*). These trees have been selected because they are drought resistant and utility-friendly (i.e., their height and branching structure are not likely to interfere with power lines, and their root system is not likely to affect underground pipelines or sidewalks).

Replacement trees will be planted by the City's arborist in coordination with the homeowner.

Trees will be replaced at a 1:1 ratio (i.e., one replacement tree for each tree removed). Replacement trees will have a 24-inch-box tree to accelerate the processing of achieving the size of the removed tree. If a 24-inch-box tree is not available, 15-gallon trees will be used.

Where a street tree must be removed, the replacement tree will not be planted within 5 feet of any fire hydrant and will be placed 4 feet outside of any drainage, sewer, or water easement and sidewalk, as determined by the City Capital Projects & Transportation Department.

All removed trees will be chipped and used as mulch in city parks and/or made available to residents at the City's corporation yard at 1801 West Capitol Avenue.

As noted in Chapter 2, *Project Description*, the City has determined that, because of the significance of trees as a key element of the neighborhood's identity, this mitigation would be applied to all trees that require removal, rather than only street trees.

1 Implementation of Mitigation Measures BIO-3a and BIO-3b would ensure that the Proposed
2 Project does not conflict with the City of West Sacramento's Tree Preservation Ordinance.
3 The Proposed Project would not conflict with any other local policies and ordinances. Impacts
4 on protected trees within the project area would be **less than significant with mitigation.**

5 ***f. Conflict with the provisions of an adopted HCP, Natural Community***
6 ***Conservation Plan, or other approved local, regional, or state HCP***
7 ***(Less than Significant with Mitigation)***

8 The project is under the jurisdiction of the Yolo Habitat Conservation Plan/Natural
9 Community Conservation Plan (HCP/NCCP). Two species (Swainson's hawk and white-tailed
10 kite) covered in the HCP/NCCP have been identified in the CNDDDB and USFWS database
11 searches as occurring within the vicinity of the project area. It is possible that both species
12 could utilize trees within the project area for nesting. Construction activities occurring within
13 the project area would be covered under the HCP/NCCP as defined in Section 3.5, "Covered
14 Activities Description," of the HCP/NCCP. As described in item 3.4(a) above, Mitigation
15 Measure BIO-1a would ensure that the Proposed Project proceeds in accordance with
16 requirements of the Yolo HCP/NCCP. Therefore, the impact would be **less than significant**
17 **with mitigation.**

3.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The Proposed Project is located in the City of West Sacramento, in the States Streets subdivision, which is one of the oldest developed neighborhoods in the city. As discussed more thoroughly below, large valley oaks (*Quercus lobata*) growing in the area were retained as part of the subdivision design. Many other trees were planted as the neighborhood was developed since the late 1910s. These largely include London Plane trees (*Platanus X hispanica*), but Deodar Cedar (*Cedrus deodara*), Silver Maple (*Acer saccharinum*), and Modesto Ash (*Fraxinus velutina* "Modesto") were among the varieties planted (West Coast Arborists 2018). As a result, the project area contains a large number of mature trees that provide a high canopy of vegetation over the neighborhood houses and streets.

Prehistory

The prehistory of the Central Valley of California is generally defined by the following periods, which serve to identify changes in how the indigenous populations lived upon the landscape and used the abundant resources of the region over the last 13,000 years.

- Paleo-Indian Period (11,550 to 8550 B.C.)
- Lower Archaic Period (8550 to 550 B.C.)
- Middle Archaic Period/Windmill Pattern (ca. 3000 B.C. to 500 B.C.)
- Upper Archaic/Berkeley Pattern (ca. 500 B.C. to A.D. 500)
- Emergent Period/Augustine Pattern (ca. A.D. 500 to A.D. 1880)

The Paleo-Indian Period was a time when the Central Valley was sparsely populated by groups who were highly mobile, hunted large game, and frequented the shores of late Pleistocene lakes and sloughs. By the Lower Archaic Period, seasonal plants had become more important for subsistence, and populations tended to settle in places for longer periods of time and in larger groups. Data from site CA-SAC-38, located within the project area of

potential effect, indicate that people were living in the Sacramento area from the earliest times within this period. As time progressed, populations grew denser and more sedentary, tools became more diverse and complex, and social structure became more stratified. The people living in the project area during the Emergent Period represent the tribes encountered by the first colonists who arrived in the early to mid-1800s.

Ethnography

Ethnographic literature suggests that the west side of the Sacramento River was likely within the ancestral territory of several tribal groups as it borders the Yolo Basin, a vast marshland that was subject to annual flooding during the winter months and that often stayed at least somewhat inundated for the remainder of the year. However, numerous sources indicate that the territory was ethnographically in the southwest corner of Nisenan territory and that their western neighbors, the Patwin, held lands west of the marshlands that bordered much of the Sacramento River, and thus west of the project area (Bennyhoff 1977; Johnson 1978; Kroeber 1932; Wilson and Town 1978). It is likely, however, that the Patwin also accessed the resources available in the Yolo Basin. Available sources (Bennyhoff 1977; Johnson 1978; Kroeber 1932; Wilson and Town 1978) do not identify any recorded ethnographic villages on the west side of the Sacramento River adjacent to the Project, though communities are known to have been located on areas of high ground (natural levees) along the Sacramento River.

History

The historic era (i.e., since Euro-American contact) in the project vicinity began when two Spanish exploration groups travelled up the Sacramento Valley in the early 1800s. These were the 1808 Moraga expedition and the 1821 Arguello expedition. The Spanish explorations were closely followed by those of fur trappers and traders in the late 1820s and early 1830s. The dire outcome of these expeditions led not only to a quick depletion of valued fur animals in the Sacramento Valley, but also the introduction of malaria to the indigenous population. By the summer of 1833, entire villages had been decimated by the disease (Kyle et al. 2002).

Permanent colonists did not settle in the region until the Mexican Period, when large land grants were bestowed upon trusted Mexican citizens, many of whom were Americans who had converted to Catholicism and married the daughters of the Mexican nationals, or had otherwise become Mexican citizens. John Sutter was among the first to receive a land grant in the Sacramento Valley. He established a fort and trading post at the location of modern-day Sacramento in 1841 and soon expanded his holdings north to the vicinity of Yuba City and east into the Sierra Nevada. It was at his mill, located near Coloma, where gold was initially discovered in California in the early months of 1848. The news spread quickly and the famed Gold Rush began, bringing thousands of people to the Sacramento region ready to make their fortunes.

The first known European to settle in the area of West Sacramento was Jon Lows de Swart (or John Schwartz), a Flemish settler. Schwartz acquired a 13,000-acre land grant on the west bank of the Sacramento River, naming it Nuevo Fladria. James McDowell bought 600 acres from Schwartz in 1846, and the newly-widowed Margaret McDowell subdivided Washington Township in 1850. The first bridge across the Sacramento River was built in 1858. Washington quickly became the political center of Yolo County and served as county seat for

1 the better part of its first decade. However, in 1862, the county seat was permanently moved
2 to Woodland due to consistent winter flooding on the west side of the Sacramento River.
3 Washington Township undertook a number of flood control and mitigation efforts, ranging
4 from raising the level of the streets and building levees, to keeping living quarters on the
5 second floor of houses (West Sacramento Historical Society 2004).

6 As steamship and other Sacramento River traffic increased in the 1850s, Washington
7 Township grew into a port town. In 1859, the California Steam Navigation Company
8 established a shipyard for riverboats in town; it quickly became a major local industry, and it
9 remained in operation for nearly a century. Washington Township also shipped fish, dairy,
10 and produce to Sacramento and San Francisco Bay Area markets, as well as profiting from
11 miners passing through. The township was divided for decades on the issue of incorporation;
12 repeated unsuccessful attempts were made to either incorporate (beginning in 1893) or
13 pursue annexation by Sacramento (beginning in 1861). The post office, established 1893, was
14 called Broderick because the name Washington was in use in Nevada County; while locals
15 initially resisted the name, they began to refer to the area as Broderick by the 1910s. The
16 population reached 1,000 by 1915 (Walters 1986:13-14, 19-20, 24; West Sacramento
17 Historical Society 1986:7).

18 San Francisco-based D.W. Hobson Company purchased land immediately north of Broderick
19 in 1910, and began to develop it as the community of Riverbank. The area was quickly
20 populated, primarily by Italian, Portuguese, Russian, and Japanese farmers. Residents began
21 to call Riverbank “Bryte” after the post office was established in 1915 and to discuss
22 incorporation in the 1920s, but as with Broderick, actual steps toward incorporation were
23 not made. The West Sacramento Land Company was formed in 1907 to develop the area
24 south of Broderick and Bryte by the capitalists who had started Pacific Gas and Electric
25 Company (PG&E), but the economic difficulties caused by flooding and the cost of reclaiming
26 the swampy land soon forced them to reorganize as the West Sacramento Company. The
27 company mapped out a plan for a “model city” under the name West Sacramento in 1913.
28 They hired San Francisco architects Lewis P. Hobart and Charles H. Cheney to lay out the new
29 city. Hobart & Cheney had studied architecture in Paris, and Cheney was to become a
30 pioneering advocate of city planning in the United States. They devised an ambitious plan for
31 West Sacramento modeled on Paris, with radial layout and grand boulevards. The plan could
32 not be realized until much of the land had been cleared, reclaimed, and freed from the danger
33 of flooding by levee construction. West Sacramento Company used engineering company
34 Haviland, Dozier, and Tibbets for the reclamation and levee work. By early 1913, the company
35 was advertising with claims that it had cleared hundreds of acres for farming, established a
36 nursery for boulevard and park plantings, and graded 30 miles of roadways. By 1917, the
37 reclamation work was complete, and the company was able to sell lots in West Sacramento,
38 although most land sold for farms rather than development of the grand city of the Hobart &
39 Cheney plan. Financial difficulties once again forced the company to reorganize in the 1920s
40 (Coast Banker 1913:262-263; Larkey and Walters 1987:64; Walters 1968:28-30).

41 The levees were completely stabilized in the 1920s, reducing the threat of flooding, and the
42 area remained agricultural, growing slowly for decades. Prohibition largely passed the area
43 by; with a thriving hop industry, too many people ignored the law for it to be enforceable, and
44 many sellers continued to advertise openly. Hollywood filmmakers began regularly using
45 Broderick as a filming location in the 1930s (Walters 1987: 28-30, 32).

East Yolo's population boomed following the end of World War II, growing from 5,185 in 1940 to 11,225 ten years later and 25,032 in 1960; much of the growth was focused in West Sacramento. This growth was due in large part to the Sacramento-Yolo Port, an ambitious undertaking approved in 1947 that required the construction of a thirty-foot-deep ship channel and a sixty-acre deep water harbor and turning basin. Ground was broken in 1949, and the port, delayed by the Korean War in the 1950s, opened to sea traffic in 1963. Costing \$55 million, the port generated 7,200 jobs and \$135 million. East Yolo developed from an agricultural area into a distribution hub and commercial and industrial center for the Sacramento Valley. A new freeway through the area opened in 1954, increasing traffic across the river. West Sacramento, Broderick, and Bryte also began to grow as bedroom communities for Sacramento during this era. The farmland between Broderick and Bryte filled in with development, and West Sacramento expanded southward. Southport, south of the barge canal, was developed beginning in the late 1960s and officially designated as a town in 1970 (Walters 1987: 35-38, 41).

Sidelined for decades, incorporation efforts began anew in the 1960s, but measures to incorporate were defeated in the 1960s and 70s. It was not until 1986 that a measure to incorporate passed; by this point, the East Yolo area had relied exclusively on county services for more than a century. The City of West Sacramento incorporated in 1987, combining Broderick, Bryte, West Sacramento, and Southport under one municipality. Growth slowed after the postwar boom resulting from the port, but West Sacramento continued to gradually develop as a smaller bedroom community just across the river from the city of Sacramento, and the population reached 34,000 by 2004. After decades of little change, West Sacramento's population began to expand quickly in the 21st century, and the population was 48,744 by 2010 (United States Census Bureau 2010; Walters 1987: 46; West Sacramento Historical Society 1986:7).

State Streets Subdivision

As noted above, the State Streets neighborhood (officially West Sacramento City Unit one and Two subdivision) was designed by San Francisco architects Hobart and Cheney. The two "proposed a city which combined elements of English Garden suburbs, Parisian street plans and classical imagery..." that was "arranged in a modified grid plan including curving streets, diagonal streets across the grid, and adjacent grids laid out on different axes" (Corbett 1993a). The West Sacramento Company hired engineers Haviland, Dozier & Tibbetts to implement the plan "by laying out the streets, building rose-colored sidewalks, curbs and gutters, and planting street trees" (Corbett 1993a). According to Corbett (1993a), "[r]ows of ash trees on Circle (1913) and Jefferson north of 15th (1941), and two sycamores at Jefferson and Webster (1941) are prominent surviving street trees."

The first model homes were built in 1913, but development was slow and by 1916 only fourteen houses had been constructed; by the 1930s there were only a few dozen homes. The northern portion of the subdivision was resurveyed in 1941 to simplify the street plan and reduce lot size. After World War II, housing in the area boomed, along with a population to match, and the subdivision reached full build out (Corbett 1993a).

Cultural Resources Studies

Cultural resources include prehistoric archaeological sites; historic-era archaeological sites; traditional cultural properties; tribal cultural resources (TCRs); and historic buildings,

structures, landscapes, districts, and linear features. TCRs are addressed in Section 3.17 of this IS/MND.

Archival Search

A record search was conducted by Horizon cultural resources staff at the Northwest Information Center (NWIC) of the California Historical Resources Information System at Sonoma State University on January 24, 2019. The purpose of the record search was to identify the presence of any previously recorded cultural resources within the project site, as well as within a ¼-mile buffer, and to determine whether any portions of the project site had been surveyed for cultural resources. The record search indicated that ten cultural resources, including the State Streets neighborhood had been recorded within the project limits, and another three resources were recorded within the ¼-mile buffer. All of the resources are of the built environment, or are heritage oak trees (see **Table 3-2**). One of the resources (P-57-000742), a Craftsman Bungalow built in 1913 at 10 Alameda Boulevard, has been recommended as eligible for listing in the National Register of Historic Places (NRHP) (Corbett 1993b). The house appears eligible for listing under Criterion A because “it is the best surviving example of an original town lot development in West Sacramento City Unit One, and is associated with the initial establishment of the new town. It includes an example of one of the five model house types...” (Corbett 1993b).

Table 3-2. NWIC Records Search Results – Previously Recorded Resources

NWIC No.	Date (Author)	Resource Name or Location (Date Constructed)	Within Project Site or Buffer
P-57-000195	Numerous recordations	Sacramento Northern/Yolo Shortline Railroad (1912)	Buffer
P-57-000564	2007 (A. Tomes, EDAW, Inc.)	West Sacramento Wastewater Treatment Plant (ca. 1955)	Buffer
P-57-000702	2013 (Maria Leon, City of West Sacramento, Real Estate Project Specialist)	1628 Virginia Avenue (1935)	Project Site
P-57-000739	1993 (Michael R. Corbett, Dames & Moore, Inc.)	West Sacramento City State Streets Subdivision Plan (1913-1950s)	Project Site
P-57-000740	1993 (Michael R. Corbett, Dames & Moore, Inc.)	1536 Jefferson Boulevard (1930)	Project Site
P-57-000742	1993 (Michael R. Corbett, Dames & Moore, Inc.)	10 Alameda Boulevard (1913)	Project Site
P-57-000743	1993 (Michael R. Corbett, Dames & Moore, Inc.)	Picturesque Oaks	Project Site
P-57-000744	1993 (Michael R. Corbett, Dames & Moore, Inc.)	1531 Virginia Avenue (1945)	Project Site

NWIC No.	Date (Author)	Resource Name or Location (Date Constructed)	Within Project Site or Buffer
	Moore, Inc.)		
P-57-000745	1993 (Michael R. Corbett, Dames & Moore, Inc.)	1527 Virginia Avenue (1939)	Project Site
P-57-000746	1993 (Michael R. Corbett, Dames & Moore, Inc.)	1521 Virginia Avenue (1915)	Project Site
P-57-000747	1993 (Michael R. Corbett, Dames & Moore, Inc.)	Picturesque Oak; SW Cor of Jefferson Blvd & Circle St	Project Site
P-57-000748	1993 (Michael R. Corbett, Dames & Moore, Inc.)	Picturesque Oak; SE Cor of 15th St & Virginia Ave	Project Site
P-57-000749	1993 (Michael R. Corbett, Dames & Moore, Inc.)	Pop's Drive-In; Whitey's Jolly Kone (1960)	Project Site
P-57-000750	1993 (Michael R. Corbett, Dames & Moore, Inc.)	Picturesque Oaks	Buffer

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The record search determined that one cultural resources survey, for the parcel at 1628 Virginia Avenue, had previously been conducted in the project area, and another 16 studies had occurred within the ¼-mile record search area, some of which were along Jefferson Boulevard. In addition, the project area is within the boundaries of 11 large archaeological or ethnographic overviews, or other regional studies.

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The archival search also included a review of historic U.S. Geological Survey (USGS) maps, including the Davisville (USGS 1907) topographic quadrangle and the Lovdal (USGS 1916) topographic quadrangle. The 1907 map shows one building existed at the north end of the project area at that time. By 1916, the Sacramento Northern Railroad and a portion of what was to become Jefferson Boulevard were both present, along with several isolated structures within the future State Streets neighborhood. These early maps also show that the project area had some elevation (ca. 19 to 29 feet above mean sea level), relative to the swampy ground to the south and west, and adjacent to the Sacramento River. The West Sacramento topographic quadrangle from 1948 (USGS 1948), which is the next quadrangle available after the 1916 map, shows the area developed with the State Streets neighborhood.

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Soils within the project limits largely consist of Lang sandy loam, though the northeast corner of the area is classified as Lang sandy loam deep (U.S. Department of Agriculture [USDA] 2019). These are deep Holocene alluvial deposits that are identified as being rarely flooded.

Native American Consultation

An email request was made to the Native American Heritage Commission (NAHC) on January 17, 2019 to review its files for the presence of recorded sacred sites on the project site. The NAHC responded on January 25, 2019, stating that significant resources are located in the vicinity of the Project area as a result of a search of their files. The NAHC also provided a list of three tribes with a traditional and cultural affiliation with the project area for notification pursuant to PRC Section 21080.3.1 (AB 52). Consultation with tribes is described in Section 3.17, "Tribal Cultural Resources." The Yocha Dehe Wintun Nation and the United Auburn Indian Community of the Auburn Rancheria (UAIC) both expressed concerns about the potential for buried Native American sites within the Project vicinity.

Archaeological Resources

No archaeological survey was conducted for the purposes of the Proposed Project since the entire project footprint consists of paved streets and the ground surface is not visible. The record search, furthermore, did not identify previously recorded archaeological resources within or near the Proposed Projects. The lack of known archaeological resources, or ground surface visibility, does not preclude the possibility of buried archaeological resources within the Project footprint, as discussed below in Section 3.5.3.

Built Environment Resources

As discussed in Section 3.5.2, the State Streets neighborhood is one of the oldest in West Sacramento. The earliest homes in the neighborhood date to 1913, when the original model homes were constructed, but a majority of the houses are post-World War II. A windshield survey of the project area indicates that most, if not all, of the homes have reached 50 years of age and are, therefore, old enough to be considered for listing in the California Register of Historical Resources (CRHR) or NRHP. However, an evaluation of each property within the project area is far beyond the scope of the current project, given that the proposed work will not directly impact any of the existing structures, and will either replace facilities in kind or install new but similar facilities adjacent to existing water lines.

That being said, the record search revealed that seven buildings (six of which are houses) within or adjacent to the project limits have previously been recorded, and six of the seven structures have been evaluated for NRHP¹ listing. Only one of the six evaluated structures was recommended eligible for the NRHP, while all of the remaining buildings were determined to have undergone too many modifications or were not architecturally significant enough to be considered eligible. The single resource considered eligible (P-57-000742), located at 10 Alameda Boulevard, is one of the original model homes for the subdivision, and is considered eligible for the NRHP under Criterion A for being associated with events that have made a significant contribution to the broad patterns of our history (Corbett 1993b).

¹ The eligibility criteria for the NRHP and the CRHR are virtually identical. Although the resources recorded in 1993 were evaluated only for the NRHP, it is assumed that their eligibility determinations would be the same with regard to the CRHR. Furthermore, resources determined eligible for listing on the NRHP, are automatically included in the CRHR.

1 This resource is outside the boundaries of the project area, which end at Alameda Boulevard
2 and Alabama Avenue.

3 The States Streets subdivision (P-57-000739) was also evaluated for NRHP listing, but was
4 determined to not meet the eligibility criteria (Corbett 1993a). According to Corbett (1993a),
5 the resource “has lost integrity through elimination of small lots, replotting of streets in a
6 substantial area, and numerous other changes which were critical to its potential
7 significance.”

8 ***a. Adverse change in the significance of a historical resource (Less than***
9 ***Significant)***

10 Historical resources, as defined in Section 15064.5 of the CEQA Guidelines, are resources that
11 are listed on or eligible for listing on the CRHR. The house at 10 Alameda Boulevard (P-57-
12 000742) was evaluated as eligible for listing in the NRHP and it is, therefore, assumed eligible
13 for listing on the CRHR; however, that structure is not within the project area and would not
14 be affected by project activities. Other individual structures within the States Streets
15 subdivision, as well as the subdivision itself, were assessed for NRHP eligibility and found not
16 eligible for listing.

17 A significant adverse change to a historical resource is defined under PRC 915064.5(b)(1) as
18 the “physical demolition, destruction, relocation, or alteration of the resource or its
19 immediate surroundings such that the significance ... would be materially impaired.” The
20 proposed projects would not affect the area beyond Alameda Boulevard and Alabama
21 Avenue, and therefore would not directly affect those characteristics of the property at 10
22 Alameda Boulevard that contribute to its NRHP/CRHR eligibility. The replacement of the
23 water main within Alameda Boulevard will be adjacent to the existing water main and will
24 not encroach on the parcel that contains the historic property. It is likely that water line
25 repairs or replacement have occurred at some time since the structure was built in 1913, so
26 the scheduled activity will not be anything different than what has previously occurred.
27 Furthermore, none of the activities that could require removal of trees would take place at
28 the location of 10 Alameda Boulevard, so the setting of the parcel would not be affected, and
29 the sewer main project area does not include Alameda Boulevard. As a result, the proposed
30 projects would have **less than significant** impacts on the significance of historical resources
31 within or adjacent to the project site, including the house at 10 Alameda Boulevard.

32 Historical resources that are archaeological in nature may be accidentally discovered during
33 project construction; archaeological resources are discussed further in item (b) below.

34 ***b. Adverse change in the significance of an archaeological resource (Less***
35 ***than Significant with Mitigation)***

36 No archaeological resources, as defined in Section 15064.5 of the CEQA Guidelines, were
37 identified within the project area during archival research and archaeological surveys were
38 not undertaken due to the fact that the project area is comprised of paved city streets.
39 However, archaeological resources in the region are known to exist under city streets and/or
40 under many feet of alluvial soils. A Native American cemetery was found during construction
41 of a new West Sacramento subdivision (Sacramento Bee 2015, 2018), less than 1.5 miles
42 south of the current project area, and buried archaeological resources have been uncovered

in other areas of the City. Similarly, a Native American village site was found buried under 10 feet of alluvium during construction of the new Sacramento County Administration building in Sacramento (Tremaine 2008). In addition, both a Native American village and a Gold Rush era encampment were uncovered at 3 and 5 feet, respectively, during construction of the Light Rail Train in downtown Sacramento (Tremaine and Ferris 2009). These discoveries are indicative of the potential for uncovering buried cultural resources during project construction, even though the area has previously been disturbed by the installation and maintenance or upgrading of sewer and water infrastructure elements over the decades. This is particularly applicable to the installation of the water mains, which will be placed adjacent to the existing lines, and will require new excavations to depths of 5 feet. The placement of fire hydrants at new locations, could similarly impact buried cultural resources. Although any excavations for the sewer main would be in areas previously disturbed by sewer line installation, cultural resources could still be identified.

Though archaeological remains have not previously been reported in the project area, project excavation activities could uncover buried archaeological materials. Prehistoric materials most likely would include obsidian and chert flaked stone tools (e.g., projectile points, knives, and choppers), tool-making debris, or milling equipment such as mortars and pestles. Historic-era materials that might be uncovered would likely be related to the agricultural activities in the project area prior to construction of the subdivision. Such items might include square cut or wire nails, tin cans, metal equipment parts, or other items related to operating an agricultural field.

If archaeological remains are accidentally discovered that are determined eligible for listing in the CRHR or determined to be a TCR, and Proposed Project activities would affect them in a way that would render them ineligible for such listing, a significant impact would result. Implementation of **Mitigation Measure CR-1 (Conduct Cultural Resources Awareness Training) and Mitigation CR-2 (Immediately Halt Construction if Cultural Resources Are Discovered, Evaluate All Identified Cultural Resources for Eligibility for Inclusion in the CRHR, and Implement Appropriate Mitigation Measures for Eligible Resources)** would ensure that impacts on CRHR-eligible archaeological sites accidentally uncovered during construction are reduced to a less-than-significant level by immediately halting work if materials are discovered, evaluating the finds for CRHR eligibility, and implementing appropriate mitigation measures, as necessary. Implementation of Mitigation Measure CR-1 would reduce impacts related to accidental discovery of archaeological resources to a level that is *less than significant with mitigation*.

Mitigation Measure CR-1: Conduct Cultural Resources Awareness Training

A cultural resources awareness training program will be provided to all construction personnel active on the Project site during earth moving activities. The training will be provided prior to the initiation of ground disturbing activities. The training will be developed and conducted in coordination with a qualified archaeologist meeting the U.S. Secretary of Interior professional standards in archaeology, as defined in 48 Code of Federal Register Parts 44720–44723, and a Native American tribe, who has participated in consultations with the City, will be invited to participate in the training. The program will include relevant information regarding sensitive cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program will also describe appropriate avoidance and minimization

measures for resources that have the potential to be located on the Project site and will outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered. The program will also underscore the requirement for confidentiality and culturally appropriate treatment of any finds of significance to Native Americans, consistent with Native American tribal values.

The Yocha Dehe will also be invited to participate in the Project preconstruction meeting, and the tribe will be kept aware of the Project construction schedule.

Mitigation Measure CR-2: Immediately Halt Construction if Cultural Resources Are Discovered, Evaluate All Identified Cultural Resources for Eligibility for Inclusion in the CRHR, and Implement Appropriate Mitigation Measures for Eligible Resources.

Construction monitoring of ground disturbing activities by archaeological or Native American monitors is not currently planned by the City. However, tribal representatives from a local traditionally and culturally affiliated tribe are invited to visit the construction site at any time to observe construction excavation, as long as the City project manager is notified in advance.

If evidence of any subsurface archaeological features or deposits are discovered during construction-related earth-moving activities, such as structural features, bone or shell fragments, flaked or ground stone artifacts, historic-era artifacts, or architectural remains, are encountered during any project construction activities, work shall be suspended immediately at the location of the find and within a radius of at least 50 feet and the City will be contacted. The City will then contact a qualified archaeologist who meet the U.S. Secretary of the Interior's professional standards and a Native American representative from a traditionally and culturally affiliated tribe, as appropriate (i.e., a Native American site rather than a historic era site), to assess the significance of the find and make recommendations for further evaluation and treatment as necessary.

All cultural resources accidentally uncovered during construction within the project site shall be evaluated for eligibility for inclusion in the CRHR. Resource evaluations will be conducted by individuals who meet the U.S. Secretary of the Interior's professional standards in archaeology. If any of the resources meet the eligibility criteria identified in PRC Section 5024.1 or CEQA Section 21083.2(g), mitigation measures will be developed and implemented in accordance with CEQA Guidelines Section 15126.4(b) before construction resumes.

For resources eligible for listing in the CRHR that would be rendered ineligible by the effects of project construction, additional mitigation measures will be implemented. Mitigation measures for archaeological resource, as outlined in CEQA Guidelines Section 15126.4(b), may include (but are not limited to) avoidance; incorporation of sites within parks, greenspace, or other open space; capping the site; deeding the site into a permanent conservation easement; or data recovery excavation. Mitigation measures for archaeological resources shall be developed in consultation with responsible agencies and, as appropriate, interested parties such as Native American tribes. Native American consultation is required if an archaeological site is determined to be a TCR. Implementation of the approved mitigation would be

1 required before resuming any construction activities with potential to affect
2 identified eligible resources at the site.

3 ***c. Disturbance of any human remains, including those interred outside of***
4 ***formal cemeteries (Less than Significant with Mitigation)***

5 No evidence of human remains was observed within the project site. Even so, there is the
6 possibility that project-related construction may affect human remains. Should any such
7 remains be discovered during construction, California Health and Safety Code Section 7050.5
8 requires that work immediately stop within the vicinity of the finds and that the County
9 coroner be notified to assess the finds. Implementation of **Mitigation Measure CR-3**
10 **(Immediately Halt Construction if Human Remains Are Discovered and Implement**
11 **Applicable Provisions of California Health and Safety Code Section 7050.5)** would
12 ensure that the Proposed Project would not result in substantial adverse effects on human
13 remains uncovered during the course of construction by requiring that, if human remains are
14 uncovered, work must be halted and the Yolo County coroner must be contacted. Adherence
15 to these procedures and provisions of the California Health and Safety Code would reduce
16 potential impacts on human remains to **less than significant with mitigation**.

17 **Mitigation Measure CR-3: Immediately Halt Construction if Human Remains**
18 **Are Discovered and Implement Applicable Provisions of California Health and**
19 **Safety Code Section 7050.5.**

20 If human remains are discovered during the Proposed Project's construction activities,
21 the requirements of California Health and Safety Code Section 7050.5 shall be followed.
22 Potentially damaging excavation shall halt on the Project site within a minimum radius
23 of 100 feet of the remains, and the County coroner shall be notified, as well as the City's
24 project manager. The coroner is required to examine all discoveries of human remains
25 within 48 hours of receiving notice of a discovery on private or state lands (California
26 Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains
27 are those of a Native American, he or she must contact NAHC by phone within 24 hours
28 of making that determination (California Health and Safety Code Section 7050[c]).
29 Pursuant to the provisions of PRC Section 5097.98, NAHC shall identify a Most Likely
30 Descendent (MLD). The MLD designated by NAHC shall have at least 48 hours to inspect
31 the site and propose treatment and disposition of the remains and any associated grave
32 goods. The State shall work with the MLD to ensure that the remains are removed to a
33 protected location and treated with dignity and respect. Native American human remains
34 may also be determined to be tribal cultural resources. The Yolo County coroner will
35 determine the treatment of human remains that are not of Native American origin. Such
36 treatment may include archaeological excavation.

3.6 ENERGY

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources (No Impact)

The Proposed Project would involve upgrading water and sanitary sewer infrastructure, rehabilitating water and sewer mains, and repairing and/or replacing curbs, gutters, sidewalks, and retrofits required to comply with the Americans with Disabilities Act (ADA) and replace deficient and failed street sections. Project-related construction activities would comply with City and state requirements for control of air pollutant emissions and reduction of greenhouse gas emissions. Operation of the Proposed Project would not involve additional consumption of energy resources beyond existing conditions. Therefore, the Proposed Project would have **no impact** on energy resources.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency (No Impact)

As stated in item (a) above, project-related construction activities would comply with City and state requirements for control of air pollutant emissions and reduction of greenhouse gas emissions and no additional consumption of energy would result from operational activities. Therefore, the Proposed Project would have **no impact** related to state or local plans for renewable energy and energy efficiency.

1 3.7 GEOLOGY, SOILS, AND SEISMICITY

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the Project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2

Discussion

This section is based on the *Geotechnical Engineering Study for State Streets Water Capacity and Sewer Rehabilitation Project – Jefferson Boulevard, Stone Boulevard, and Park Drive, West Sacramento, California*, prepared in October 2018 by Youngdahl Consulting Group (Youngdahl). Additional information was provided by the *Pavement Design and Soil Contamination Evaluation* prepared by Youngdahl in January 2019.

a. Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving:

i. Seismic-related rupture of a known earthquake fault (No Impact)

According to the Fault Activity Map of California and Adjacent Areas (Jennings 2010, as cited in Youngdahl 2018) and the Peak Acceleration from Maximum Credible Earthquakes in California (California Division of Mines and Geology 2007, as cited in Youngdahl 2018), no active faults or Earthquake Fault Zones (Special Studies Zones) are located on the project site. No evidence of recent or active faulting was observed during a field study conducted by Youngdahl in 2018. The nearest mapped potentially active and active faults relevant to the project site are identified in **Table 3-3**.

Table 3-3. Local Active and Potentially Active Faults

Activity	Fault Name	Distance and Direction
Active	Dunnigan Hills	19.9 mi (32 km) northwest
Active	Midland Fault	18.6 mi (30 km) southwest
Active	Green Valley Fault	38.5 mi (62 km) southwest
Potentially Active	Bear Mountains Fault Zone – West	26 mi (42 km) east
Potentially Active	Bear Mountains Fault Zone – East	33 mi (53 km) east
Potentially Active	Maidu Fault	31 mi (50 km) northeast
Potentially Active	Vaca Fault	29.8 mi (48 km) southwest
Potentially Active	Deadman Fault	32.9 mi (53 km) northeast

Source: Youngdahl Consulting Group 2018

Based on the distances and activity of nearby faults, the Proposed Project would have **no impact** related to seismic-related rupture.

ii. Strong seismic ground shaking (No Impact)

The severity of ground shaking experienced at a specific location depends on a variety of factors, such as the magnitude and duration of the seismic event, fault type associated

with the event, distance from the epicenter, and physical properties of the underlying geology and soils. Because the project site is not located near any known active faults and is not in a seismically active region, the area is not likely to experience significant ground shaking. **No impact** would result.

iii. Seismic-related ground failure, including liquefaction (*No Impact*)

Liquefaction can occur when water-saturated, loose sandy soils lose cohesion during seismic shaking. The primary factor that triggers liquefaction is moderate to strong ground shaking. Physical properties that increase susceptibility to liquefaction are relatively clean/loose granular soils, and a shallow depth to groundwater and/or saturated conditions. The project site is not located in a designated liquefaction zone nor is it in a seismically active area (California Governor's Office of Emergency Services [Cal OES] 2018, as cited in Youngdahl 2018). As such, even though the existing site may overlie artificial fill and is located near the Sacramento River (i.e., both factors increasing the propensity for liquefaction), it is unlikely to experience liquefaction. The Proposed Project would not expose people or structures to substantial adverse effects from liquefaction. Therefore, **no impact** would occur.

iv. Landslides? (*No Impact*)

The project site is in a flat, developed area in the City of West Sacramento. The potential for landslides to occur in this location is very low. **No impact** related to landslides would result.

b. Substantial soil erosion or the loss of topsoil (*Less than Significant*)

The Proposed Project's construction activities would occur exclusively within an urban residential neighborhood. Within this area, the work would take place in, on, and immediately adjacent to existing City streets. Very little loss of topsoil would occur, as very little topsoil would be disturbed by project activities.

Policy S-3.2 of the General Plan update requires that a geotechnical report be prepared and its mitigation measures be incorporated into the design. The updated General Plan also has two policies to address soil erosion: PFS-4.9 of Goal PFS-4, which imposes conditions on grading projects during the rainy season; and NCR-4.7 of Goal NCR-4, which requires compliance with the City's grading ordinance and NPDES permit, ensuring preparation of a SWPPP and issuance of a grading permit for all construction projects, as required by the Central Valley Regional Water Quality Control Board (RWQCB) and the City's municipal code. These policies are implemented through the regulation and development review process, which requires that all construction comply with the California Building Standards Code (CBC). Therefore, the impacts of the Proposed Project related to erosion and loss of topsoil would be **less than significant**.

c. Location on a geologic unit or soil that is unstable or that would become unstable as a result of the Proposed Project and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse (Less than Significant)

The project area is in a topographically flat region and is therefore not susceptible to landslides. The risk of lateral spreading is low, as the project area does not consist of fill material. The City's General Plan Update EIR (City of West Sacramento 2016) did not identify any areas currently experiencing subsidence within West Sacramento. The majority of the project site has elevation changes of less than 5 feet, which are associated with fills or stockpiles. No slopes of engineering significance are present or anticipated on the site following construction activities.

Policy S-3.2 of the General Plan update requires that a geotechnical report be prepared and its mitigation measures be incorporated into the design. This policy is implemented through the regulation and development review process, requiring that all construction comply with the CBC, which addresses engineered fills and cuts. Compliance with City policy and the regulation and development review process would ensure that impacts related to potential seismic or geologic hazards would be **less than significant**.

d. Location on expansive soil, creating substantial direct or indirect risks to life or property (Less than Significant with Mitigation)

Youngdahl (2018) reported that the materials encountered during field investigations were generally non-plastic (sand and non-plastic silt). The non-plastic materials are generally considered to be non-expansive; therefore, no special design considerations would be required for the design or construction of the proposed improvements. Some layers of clay were encountered at depth, however, raising the potential for expansive soils in these areas.

Policy S-3.2 of the General Plan update requires that a geotechnical report be prepared and its mitigation measures be incorporated into the design. Implementation of **Mitigation Measure GEO-1 (Conduct Construction Monitoring During Clearing and Grading to Provide Supplemental Recommendations if Necessary)** would require that the project engineer must be present during clearing and grading so that, if additional areas of expansive soils are encountered, the project engineer would provide recommendations to reduce the potential for risk to life or property from expansive soils. This impact would be **less than significant with mitigation**.

Mitigation Measure GEO-1. Conduct Construction Monitoring During Clearing and Grading to Provide Supplemental Recommendations if Necessary.

Construction monitoring is a continuation of the findings and recommendations provided in the Geotechnical Report. The City shall involve the project engineer in all grading activities to provide supplemental recommendations as field conditions dictate. The project engineer will be notified at least 2 working days before site clearing or grading operations commence, and will observe the overexcavation of existing fills or loose/soft soils and provide consultation to the grading contractor in the field.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater (No Impact)

The Proposed Project involves repair, replacement, and upgrade of a portion of the City's water and sewer infrastructure; repair and replacement of curb, gutter, and sidewalk; and rehabilitation of deficient street sections throughout the State Streets neighborhood. Neither septic tanks nor alternative wastewater disposal systems are present in the project area. **No impact** on such facilities would result.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geological feature (Less than Significant with Mitigation)

The Project site is in a previously disturbed area, and ground disturbance is not expected to extend below a depth of 7 feet. Therefore, the Project is unlikely to impact scientifically important paleontological resources. In the unlikely event that fossil remains are encountered, paleontological mitigation will need to be developed. This mitigation would include paleontological monitoring; collection of observed resources; preservation, stabilization, and identification of collected resources; curation of resources into a museum repository; and preparation of a monitoring report of findings.

No paleontological resources or unique geologic features are known to exist within or near the Project site. The site is underlain by Holocene Alluvium, which is considered to have low paleontological sensitivity from the surface to a depth of 20 feet and high sensitivity below that mark. However, the Project site is in a previously disturbed area and will have ground disturbance that extends to a maximum depth of 7 feet. Therefore, the Project is unlikely to impact scientifically important paleontological resources. Should undiscovered paleontological resources be found during Project construction, **Mitigation Measure GEO-2 (Halt Excavation If Paleontological Resources Are Encountered, Evaluate the Find, and Implement Measures to Avoid Impacts)** shall be implemented to reduce potential impacts on paleontological resources. This impact would be **less than significant with mitigation**.

Mitigation Measure GEO-2. Halt Excavation If Paleontological Resources Are Encountered, Evaluate the Find, and Implement Measures to Avoid Impacts

If paleontological resources are encountered during Project excavation and no monitor is present, all ground-disturbing activities within 50 feet of the find shall be redirected to other areas until a qualified paleontologist can be retained to evaluate the find and make recommendations for additional paleontological mitigation, which may include paleontological monitoring; collection of observed resources; preservation, stabilization, and identification of collected resources; curation of resources into a museum repository; and preparation of a final report documenting the monitoring methods and results to be submitted to the museum repository and the City of West Sacramento.

3.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the Project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

As described in more detail in Section 3.3, "Air Quality," YSAQMD has identified BMPs to reduce construction equipment exhaust focus on strategies that reduce NOx, ROG, and PM10 emissions (YSAQMD 2007). These strategies may include restricting unnecessary vehicle idling to 5 minutes, using reformulated and emulsified fuels, incorporating catalyst and filtration technologies, and modernizing the equipment fleet with cleaner repower and newer engines, among others.

a. Generate a net increase in greenhouse gas emissions which may have a significant impact on the environment (Less than Significant)

As described in Section 3.3, "Air Quality," the Proposed Project involves repair, replacement, and upgrade of a portion of the City's water and sewer infrastructure; repair and replacement of curb, gutter, and sidewalk; and rehabilitation of deficient street sections throughout the State Streets neighborhood. Construction activities would take place over an approximately 18-month period, and construction contractors would comply with YSAQMD BMPs. No operational activities would involve emissions of greenhouse gases beyond the activities taking place under existing conditions; in fact, replacement of the water main and pipelines would reduce loss of water due to leaking pipes, resulting in reduced demand for water supply and treatment. Therefore, the Proposed Project would not generate a net increase in emissions of greenhouse gases. The impact would be **less than significant**.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases (Less than Significant)

A project is deemed inconsistent with air quality and greenhouse gas (GHG) reduction plans if it would result in population and/or employment growth that exceeds growth estimates included in the applicable air quality plan, which, in turn, would generate emissions not accounted for in the applicable air quality plan emissions budget. Therefore, projects need to

1 be evaluated to determine whether they would generate population and employment growth
2 and, if so, whether that growth would exceed the growth rates included in the relevant air
3 quality and GHG reduction plans. The Proposed Project involves maintenance activities and
4 installation of utility infrastructure in a fully developed urban area. Therefore, the Proposed
5 Project would be consistent with local plans for growth, traffic, and air quality and would
6 have a **less-than-significant impact** related to GHG emissions.

1 3.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the Project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. 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, create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2

3 Discussion

4 The California Environmental Protection Agency (CalEPA) has been granted primary
 5 responsibility by USEPA for administering and enforcing hazardous materials management
 6 plans within California. CalEPA defines a hazardous material as a material that, because of its

1 quantity, concentration, or physical or chemical characteristics, poses a significant present or
2 potential hazard to human health and safety or to the environment if released (26 California
3 Code of Regulations [CCR] 25501).

4 State regulations include detailed planning and management requirements to ensure that
5 hazardous materials are properly handled, stored, and disposed of to reduce human health
6 risks. In particular, the state has acted to regulate the transfer and disposal of hazardous
7 waste. Hazardous waste haulers are required to comply with regulations that establish
8 numerous standards, including criteria for handling, documenting, and labeling the shipment
9 of hazardous waste (26 CCR 25160 et seq.).

10 CalEPA maintains the Hazardous Wastes and Substances Site (Cortese) List, a planning
11 document used by state and local agencies and developers to comply with CEQA
12 requirements in providing information about the locations of hazardous materials release
13 sites. The California Department of Toxic Substances Control (DTSC), State Water Resources
14 Control Board, and California Department of Resources Recycling and Recovery contribute to
15 the hazardous material release site listings, which are updated annually.

16 CalEPA delegates responsibility for many of its programs to local governments through
17 certification as a Certified Unified Program Agency (CUPA). A CUPA is responsible for
18 implementing a unified hazardous materials and hazardous waste management program. As
19 the designated CUPA for Yolo County, the Environmental Health Services Division of Yolo
20 County is responsible for performing all assessments of environmental contamination
21 and/or human exposure, providing oversight of cleanup activity, and coordinating with the
22 lead state agency having cleanup jurisdiction.

23 As discussed in Section 3.10, "Hydrology and Water Quality," a project that would disturb
24 1 acre or more of soil must obtain coverage under General Permit Order 2010-0014-DWQ.
25 Coverage under the General Permit requires the development and implementation of a
26 SWPPP. A SWPPP includes plans for erosion and sediment control and adheres to the
27 County's grading ordinance and BMPs. Standard BMPs used during construction for erosion
28 control typically include the following:

- 29 ▪ Limit construction access routes and stabilize designated access points.
- 30 ▪ No cleaning, fueling, or maintaining of vehicles is allowed onsite, except in a
31 designated area where washwater is contained and treated.
- 32 ▪ Properly store, handle, and dispose of construction materials/wastes to prevent
33 contact with stormwater.
- 34 ▪ Train and provide instruction to all construction contract employees/
35 subcontractors on implementation of the BMPs.
- 36 ▪ Control all potential pollutants, including pavement cutting wastes, paints, concrete,
37 petroleum products, chemicals, washwater or sediments, rinse water, and non-
38 stormwater discharges and prevent their discharge to storm drains and
39 watercourses.

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (Less than Significant)

Construction activities for the Proposed Project would require the routine transport, use, or disposal of hazardous materials (e.g., fuel, oil, petroleum products) and hazardous wastes (potentially contaminated soils, as described in item 3.9[d] below), which could result in the release of hazardous materials into the environment. The contractor would be required by existing regulations to implement standard BMPs and SWPPP measures to control erosion, sediment, and runoff in the project area during construction. In the event of releases of hazardous materials into the environment, the CUPA would provide oversight of any necessary cleanup activities.

The Proposed Project would be consistent with the City of West Sacramento General Plan, which requires compliance with existing regulations. Existing regulations and BMPs, as described above, would ensure that sites containing hazardous materials are cleaned up to existing standards. This impact would be **less than significant**.

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (Less than Significant)

Construction equipment has the potential to release oils, greases, solvents, and other finishing materials through accidental spills. Given the nature of hazardous materials that would be used, stored, or disposed of (e.g., materials for construction equipment, potentially contaminated soil), there is a possibility for upset and accident conditions involving the release of hazardous materials into the environment. Accidental releases of small quantities of these substances could contaminate soils and degrade the quality of surface water and groundwater, resulting in a public safety hazard. However, the handling and disposal of these materials would be governed according to regulations enforced by the West Sacramento Fire Department, the CUPA, California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA), and DTSC. In addition, regulations under the federal Clean Water Act require contractors to avoid allowing the release of materials into surface waters as part of their SWPPP and National Pollutant Discharge Elimination System permit requirements (see Section 3.10, "Hydrology and Water Quality," for a discussion of SWPPPs). Therefore, the use of hazardous materials during construction would not result in a reasonably foreseeable upset or accident condition that would cause significant hazard to the public or environment.

Reasonably foreseeable spills under operational conditions would be handled according to the specifications of the County Hazardous Waste Management Plan. This plan governs the preparation and implementation the County's Area Plan for emergency response to chemical spills in the community.

Based on the existing regulatory scheme, this impact would be **less than significant**, and no mitigation is required.

c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school (No Impact)

No schools are located within ¼ mile of the project area. Therefore, there would be **no impact**.

d. Located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, create a significant hazard to the public or the environment (No Impact)

According to the geotechnical report prepared by Youngdahl (2018), one site in West Sacramento—Capitol Plating—appears on DTSC’s Cortese List. Site assessment has been underway since 1999 and the site’s status has been listed as Open – Inactive since that time. DTSC conducted a targeted site investigation in 2005, and the facility was demolished in 2005. The potential for soil or groundwater contamination for this property is considered high; however, this site is not within the project area (City of West Sacramento 2016).

No hazardous materials sites included on a list compiled pursuant to Government Code Section 65962.5 are present within the city boundaries, and no Comprehensive Environmental Response, Compensation, and Liability Act (Superfund) or other National Priorities List sites are within the city limits (City of West Sacramento 2016). Therefore, the Proposed Project would not result in a significant hazard to the public or the environment through exposure to such sites.

Youngdahl prepared a geotechnical engineering study for the project area (Youngdahl 2018). During field work, petroleum contaminated soils were detected in one soil boring at a depth of 11.5 feet below ground surface (bgs). Based on the literature review for the geotechnical study, the source of the contamination was likely to be a petroleum-contaminated groundwater plume from a former 7-Eleven gas station at the northwest corner of Jefferson Boulevard and Vermont Avenue and another plume from a Buckeye Partners petroleum facility southeast of Alameda Boulevard. Additional borings were conducted to a depth of approximately 9 feet bgs and tested for potential hydrocarbon contamination (Youngdahl 2019).

Laboratory analysis identified polychlorine biphenyls (PCBs), VOCs, and several TPH constituents in the original soil boring at levels above residential Tier 1 levels established by the San Francisco Bay RWQCB’s Environmental Screening Levels (ESLs), a series of tables that reflect the concentration of hazardous chemicals considered to represent the thresholds of concern for risk to human health. DTSC recognizes the ESLs as a suitable screening level for petroleum hydrocarbons such as gasoline and diesel. However, because the Proposed Project would be located within city street right-of-way rather than on residential properties, the levels were compared to commercial levels and found to be within applicable screening levels established by the RWQCB, USEPA, and DTSC or within background concentrations. The two additional soil borings had no indications of petroleum contamination.

1 The Proposed Project would be consistent with the updated General Plan, which requires
2 compliance with existing provisions regarding hazardous material sites. Existing regulations
3 would ensure that sites containing hazardous materials be cleaned up to existing standards
4 for the proposed land use prior to development. There would be **no impact**.

5 ***e. Located within an airport land use plan area or, where such a plan has***
6 ***not been adopted, be within 2 miles of a private airport or public***
7 ***airport and result in a safety hazard or excessive noise for people***
8 ***residing or working in the study area (No Impact)***

9 The nearest airports to the State Streets neighborhood are Sacramento Executive Airport,
10 located 7 miles southeast on the east side of the Sacramento River at 6151 Freeport
11 Boulevard; and Sacramento International Airport, located approximately 13 miles north on
12 I-5 between Sacramento and Woodland. The project site is not located within 2 miles of an
13 airport or within an airport land use plan area. There would be **no impact**.

14 ***f. Impair implementation of or physically interfere with an adopted***
15 ***emergency response plan or emergency evacuation plan (Less than***
16 ***Significant)***

17 Construction activities for the Proposed Project could cause temporary changes in emergency
18 access. Existing City requirements for construction projects require signage and an access
19 plan to ensure continued emergency access during construction. Consequently, the impact is
20 considered **less than significant**.

21 ***g. Expose people or structures, either directly or indirectly, to a***
22 ***significant risk of loss, injury or death involving wildland fires (No***
23 ***Impact)***

24 The project area is an urban neighborhood that is fully developed. **No impact** related to
25 wildland fires would result.

1 **3.10 HYDROLOGY AND WATER QUALITY**

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the Proposed Project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2

3 **Discussion**

4 West Sacramento is within the Sacramento Valley Groundwater Basin, Yolo Sub-basin, and is
5 under the jurisdiction of the Central Valley RWQCB. The Sacramento River flows along the

1 east and northeast boundaries of the city and is the largest river in California. The river's flow
2 is controlled by several principal reservoirs, including Lake Shasta and Trinity Lake to the
3 north, Lake Oroville along the Feather River, and Folsom Lake along the American River. The
4 water quality of the Sacramento River is generally good to excellent and has relatively low
5 biochemical oxygen demand, medium to high dissolved oxygen, and low mineral and nutrient
6 content (City of West Sacramento 2016).

7 The City maintains one groundwater well, which is currently on standby status but is
8 available for emergencies. Surface water from the Sacramento River is used to meet water
9 demands within West Sacramento.

10 Stormwater runoff is collected into gutters, storm drains, and retention basins and ultimately
11 flows into local waterways. Pollutants in West Sacramento's urban stormwater include
12 sediments, non-sediment soils, nutrients, pathogens, oxygen-demanding substances, total
13 petroleum hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons, trash,
14 pesticides, and herbicides.

15 Given its proximity to the Sacramento River, West Sacramento is located in the river's
16 floodplain. The city is surrounded by levees, including those immediately south and east of
17 the project area, that are maintained by the State and local reclamation districts. The Federal
18 Emergency Management Agency is currently reevaluating flood zone designation maps in
19 West Sacramento. In addition, the City is concurrently working to complete levee
20 improvements to increase flood protection within West Sacramento. At this time, most of the
21 city, including the Project site, is classified as Zone X. Flood Zone X has no statutory
22 requirement for flood insurance and allows new construction and expansion of existing
23 structures without being subject to elevation and flood proofing requirements (City of West
24 Sacramento 2016).

25 ***a. Violate any water quality standards, waste discharge requirements or***
26 ***otherwise substantially degrade water quality (Less than Significant)***

27 Construction activities for the Proposed Project would require excavation, grading, and
28 paving. Any soil removed during construction would be stored and controlled to reduce soil
29 erosion and sedimentation of downstream waterways. Pollutants and hazardous materials,
30 such as gasoline, diesel fuel, oil, solvents, and trash stored and used during construction,
31 would be subject to State and local regulations. Compliance with these regulations would
32 reduce the potential for materials to enter drainages and degrade downstream water quality.

33 The State Water Resources Control Board requires dischargers whose projects disturb 1 or
34 more acres of soil to obtain coverage under the General Permit for Discharges of Storm Water
35 Associated with Construction Activity (Construction General Permit 99-08-DWQ). Effective
36 July 1, 2010, all dischargers are required to obtain coverage under the Construction General
37 Permit Order 2009- 0009-DWQ adopted on September 2, 2009. Construction activity subject
38 to this permit includes clearing, grading, and disturbances to the ground such as stockpiling
39 or excavation. The development and implementation of a SWPPP would be required under
40 the Construction General Permit. The SWPPP would identify BMPs that the discharger would
41 use to control the release of pollutants in stormwater runoff. Additionally, the SWPPP would
42 contain a visual monitoring program and a chemical monitoring program for "nonvisible"
43 pollutants to be implemented if there is a failure of the BMPs.

In addition, the Project would comply with the Water Quality Control Plan for the Sacramento and San Joaquin River Basins and would therefore not violate any water quality standards or regulations. The Project would result in a **less-than-significant impact** related to water quality standards or waste discharge requirements.

b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge, such that the project may impede sustainable groundwater management of the basin (Less than Significant)

The Proposed Project would involve upgrading water and sanitary sewer infrastructure, rehabilitating water and sewer mains, and repairing and/or replacing curbs, gutters, sidewalks, and retrofits required to comply with the ADA and replace deficient and failed street sections throughout the State Streets neighborhood. No additional use of groundwater would be required for construction or operation of the Proposed Project; in fact, replacement of the water main and pipelines would reduce loss of water due to leaking pipes, resulting in reduced demand for water supply and treatment. Repair and rehabilitation of street sections would involve paving of some segments of neighborhood roadways; however, these roadways are paved under existing conditions, and the amount of pavement would not be increased as a result of the Proposed Project. Therefore, the Proposed Project would have a **less-than-significant impact** on groundwater supplies and groundwater recharge.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. result in substantial erosion or siltation on- or off-site (Less than Significant)

Construction activities for the Proposed Project would involve excavation within city streets to repair, remove, and/or replace water and sanitary sewer mains and pipelines. Exposure of subsurface soils during the rainy season could result in erosion or siltation of runoff. All construction activities would be conducted in compliance with the City's standards and applicable State Water Resources Control Board (SWRCB) requirements, including preparation of a SWPPP, which would prevent runoff from causing substantial erosion or siltation on- or off-site. Therefore, the impact of the Proposed Project related to erosion or siltation would be **less than significant**.

ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite (No Impact)

As described in Chapter 2, *Project Description*, one aspect of the Proposed Project would be rehabilitation of deficient street sections. The project area is a fully developed urban neighborhood, however, and the pavement being laid down would be replacing existing pavement. Therefore, no increase in the amount of impervious surface would result from the Proposed Project, which would have **no impact** on the rate and amount of surface runoff.

iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff (*No Impact*)

The Proposed Project does not include construction of new stormwater drainage facilities; however, street gutters would be repaired in areas where they have been damaged by tree roots or where construction activities require excavation or temporary removal of the curb, gutter, and sidewalk and disturbance of the surface pavement. These activities would involve replacement of existing stormwater drainage systems. The Proposed Project would have **no impact** on stormwater drainage.

iv. impede or redirect flood flows (*No Impact*)

The risk of flooding in the project area is extremely minor because the area is protected by levees certified by Federal Emergency Management Agency (FEMA) to protect against the 100-year storm event. The Proposed Project would have **no impact** related to flood flows.

d. Located in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation (*Less than Significant*)

West Sacramento is not at risk for tsunami, and the project area is not adjacent to a body of water that could experience seiche. The city is located near the confluence of the American and Sacramento Rivers, and the Sacramento River Deep Water Ship Channel meets the Sacramento River just south of Stone Boulevard, the southern boundary of the project area. As a result, flooding is a concern in parts of West Sacramento. The Proposed Project area is protected by a levee certified by FEMA to provide 100-year protection (FEMA 1995, as cited in LSA Associates 2019), east of Jefferson Boulevard and the Western Pacific Railroad tracks.

As described in item (a) above, construction contractors would be required to implement a SWPPP to control the release of pollutants in stormwater. Construction activities would involve handling of fuel, oil, and other pollutants that could be toxic to fish and other aquatic organisms. An accidental spill or inadvertent discharge of these materials could affect the water quality of the Sacramento River. Construction contractors would be required to prepare and implement a SWPPP and comply with the conditions of the National Pollutant Discharge Elimination System general stormwater permit for construction activity. The SWPPP would include implementation of a monitoring program and a Spill Prevention Control and Countermeasures Plan. The contractor would be required to obtain a permit from the Central Valley RWQCB detailing a plan to control any spills that occur during construction. The plan would describe the construction activities to be performed, BMPs that would be implemented to prevent discharges of contaminated stormwater into waterways, and inspection and monitoring activities that would be conducted.

Compliance with state and local regulations and implementation of a SWPPP would result in a **less-than-significant impact**.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan (No Impact)

As stated in item (b) above, the Proposed Project would involve upgrading water and sanitary sewer infrastructure, rehabilitating water and sewer mains, and repairing and/or replacing curbs, gutters, sidewalks, and retrofits required to comply with the ADA and replace deficient and failed street sections throughout the State Streets neighborhood. All construction activities would be conducted in compliance with City standards, including preparation of a SWPPP with a monitoring program and a Spill Prevention Control and Countermeasures Plan. No additional use of groundwater would be required for construction or operation of the Proposed Project. Therefore, the Proposed Project would have **no impact** on water quality control plans and sustainable groundwater management plans.

3.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the Project:				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a. Divide an established community (No Impact)

During construction activities for the repair, rehabilitation, and replacement of water and sanitary sewer facilities, city streets in the State Streets neighborhood would be trenched and excavated to remove and install pipelines. This activity would be conducted incrementally over a 6-month period. Trenches would be covered during non-work hours to avoid access limitations for neighborhood residents. Following the completion of construction, no barriers or division would be visible aboveground. The Proposed Project would have **no impact** related to division of an established community.

b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (Less than Significant)

Implementation of the Proposed Project would benefit residents of the State Streets neighborhood by improving water supply and pressure, sanitary sewer operation, and street conditions. These improvements would comply with the City's construction standards and regulatory requirements. The impact would be **less than significant**.

1 3.12 MINERAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the Project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2

3 Discussion

4 ***a. Result in the loss of availability of a known mineral resource that***
5 ***would be of value to the region and the residents of the state (No***
6 ***Impact)***

7 The project area is a fully developed residential neighborhood in an urban environment. The
8 City of West Sacramento General Plan (City of West Sacramento 2016) identifies no mineral
9 resources within the city. There would be **no impact**.

10 ***b. Result in the loss of availability of a locally important mineral resource***
11 ***recovery site delineated on a local general plan, specific plan or other***
12 ***land use plan (No Impact)***

13 The project area is a fully developed residential neighborhood in an urban environment. The
14 City of West Sacramento General Plan (City of West Sacramento 2016) identifies no locally
15 important mineral resources within the city. There would be **no impact**.

1 3.13 NOISE

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the Project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. For a project located within the vicinity of a private airstrip or an airport land use plan area, or, where such a plan has not been adopted, within 2 miles of a public airport or public-use airport, would the project expose people residing or working in the project site to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2 Overview of Noise and Vibration Concepts and Terminology

3 Noise

4 In the CEQA context, noise can be defined as unwanted sound. Sound is characterized by
5 various parameters, including the rate of oscillation of sound waves (frequency), the speed
6 of propagation, and the pressure level or energy content (amplitude). In particular, the sound
7 pressure level is the most common descriptor used to characterize the loudness of an ambient
8 sound level, or sound intensity. The decibel (dB) scale is used to quantify sound intensity.
9 Because sound pressure can vary enormously within the range of human hearing, a
10 logarithmic scale is used to keep sound intensity numbers at a convenient and manageable
11 level. The human ear is not equally sensitive to all frequencies in the spectrum, so noise
12 measurements are weighted more heavily for frequencies to which humans are sensitive,
13 creating the A-weighted decibel (dBA) scale.

14 In general, human sound perception is such that a change in sound level of 3 dB is barely
15 noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as
16 doubling or halving the sound level. **Table 3-4** presents approximate noise levels for common
17 noise sources, measured adjacent to the source.

Table 3-4. Examples of Common Noise Levels

Common Outdoor Activities	Noise Level (dBA)
Gas lawnmower at 3 feet	100
Diesel truck at 50 feet traveling 50 miles per hour	90
Noisy urban area, daytime	80
Gas lawnmower at 100 feet, commercial area	70
Heavy traffic at 300 feet	60
Quiet urban area, daytime	50
Quiet urban area, nighttime	40
Quiet suburban area, nighttime	30
Quiet rural area, nighttime	20

Source: Caltrans 2009

Vibration

Ground-borne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may be composed of a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in Hertz (Hz). Most environmental vibrations consist of a composite, or "spectrum," of many frequencies. The normal frequency range of most ground-borne vibrations that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz. Vibration information for this analysis has been described in terms of the peak particle velocity (PPV), measured in inches per second, or of the vibration level measured with respect to root-mean-square vibration velocity in decibels (VdB), with a reference quantity of 1 micro-inch per second.

Vibration energy dissipates as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. Soil properties also affect the propagation of vibration. Vibration in buildings is typically perceived as rattling of windows, shaking of loose items, or the motion of building surfaces. In some cases, the vibration of building surfaces also can be radiated as sound and heard as a low-frequency rumbling noise, known as ground-borne noise.

Ground-borne vibration is generally limited to areas within a few hundred feet of certain types of industrial operations and construction/demolition activities, such as pile driving. Road vehicles rarely create enough ground-borne vibration amplitude to be perceptible to humans unless the receiver is in immediate proximity to the source or the road surface is poorly maintained and has potholes or bumps. Generally, people are more sensitive to low-frequency vibration. Human annoyance also is related to the number and duration of events; the more events or the greater the duration, the more annoying it becomes.

Discussion

The City's General Plan Safety Element (City of West Sacramento 2016) identifies Goal S-7: "To protect city residents from the harmful effects of excessive noise and vibration." Policies S-7.1 through S-7.10 are outlined to achieve the City's goal; however, these policies are directed primarily to new development. The City's performance standards for noise and vibration, found in Chapter 17.28.110 and Chapter 17.28.140 of its Municipal Code, are the primary enforcement tool for the operation of locally regulated noise sources, such as construction activity or outdoor recreation facilities. These sections of the Municipal Code set noise level performance standards for non-transportation noise sources, such as construction equipment; industrial operations; outdoor recreation facilities; heating, ventilation, and air-conditioning units; and loading docks. The standards for residential land uses are shown in **Table 3-5**. Because the City's performance standards do not specify an exemption for temporary daytime construction activity, the daytime (7 a.m.-10 p.m.) and nighttime (10 p.m.-7 a.m.) limits specified in the City's performance standards for noise apply to all construction activities in West Sacramento.

Table 3-5. City of West Sacramento Noise Level Standards for Non-transportation Uses

Land Use	Noise Level Descriptor (dBA)	Exterior		Interior	
		Day	Night	Day	Night
Residential	Hourly Leq	50	45	45	35
	Maximum level	70	65	–	–

Note: dBA = A-weighted decibels; Leq = day-night equivalent sound level

Source: City of West Sacramento 2016.

The City's Municipal Code prohibits the installation of any operation that consistently produces noticeable construction- or operation-related vibration beyond the property line. In addition, the City's General Plan Safety Element includes Policy S-7.6: Vibration Standards, which states: "The City shall require construction projects and new development anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby noise-sensitive uses based on Federal Transit Administration criteria." **Table 3-6** shows the Federal Transit Administration criteria included in General Plan Policy S-7.6 as the City's vibration impact criteria for frequent events, occasional events, and infrequent events.

Table 3-6. Groundborne Vibration Impact Criteria for General Assessment

Land Use	Impact Levels ¹ (VdB)		
	Frequent	Occasional	Infrequent
Category 1: Buildings where vibrations would interfere with interior operations ²	65	65	65
Category 2: Residences and buildings where people	72	75	80

Land Use	Impact Levels ¹ (VdB)		
	Frequent	Occasional	Infrequent
normally sleep			
Category 3: Institutional land uses with primarily daytime uses	75	78	83

1 Impact levels, in vibration decibels (VdB), are defined by event frequency as follows: frequent –
 2 more than 70 vibration events of the same source per day; occasional – 30-70 vibration events of
 3 the same source per day; infrequent – fewer than 30 vibration events of the same source per day.

4 2 This criterion limit is based on levels that are acceptable for most moderately sensitive equipment,
 5 such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed
 6 evaluation to define the acceptable vibration levels.

7 *Source: City of West Sacramento 2016.*

8 ***a. Generation of a substantial temporary or permanent increase in***
 9 ***ambient noise levels in the vicinity of the project in excess of standards***
 10 ***established in the local general plan or noise ordinance, or applicable***
 11 ***standards of other agencies (Less than Significant with Mitigation)***

12 As listed in Section 2.5.5 of Chapter 2, *Project Description*, the following equipment would be
 13 used during construction activities for the Proposed Project:

Water Main and Sewer Main Installation

- track-mounted excavators (2)
- end dump/haul trucks (4)
- flat-bed delivery truck (1)
- concrete truck (1)
- backhoe (1)
- front-end loaders (2)
- vac truck (1)
- concrete saw (1)
- pipe cutting saw (2)
- water truck (1)
- street sweeper (1)
- “Ditch Witch” horizontal directional drill machine (1)
- compressor/jack hammer (1)
- crew trucks (F150-F350) (3)

Sewer CIPP Installation

- TVI truck (1)
- vac truck (2)
- refig truck/liner truck (1)
- generator truck (1)
- water truck (1)
- boiler truck (1)
- crew trucks (F150-F350) (3)

14 Despite the variety in the type and size of construction equipment, similarities in the
 15 dominant noise sources and patterns of operation allow construction-related noise ranges to
 16 be categorized by work phase. **Table 3-7** lists typical construction equipment noise levels

(L_{max}) recommended for noise impact assessments based on a distance of 50 feet between the equipment and a noise receptor.

Normal construction activity may generate high noise levels from an active construction area. Equipment includes backhoes, compactors, and dump trucks. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings. Noise associated with the use of construction equipment is estimated between 55 and 85 dBA L_{max} at a distance of 50 feet from each piece of equipment. As shown in Table 3-7, the maximum noise level generated by a front-end loader, dump truck, excavator, and Ditch Witch would be approximately 80 dBA L_{max}, 84 dBA L_{max}, 85 dBA L_{max}, and 86 dBA L_{max} at 50 feet, respectively. Each piece of construction equipment operates as an individual point source. Using these estimates, the conservative composite noise level during this phase of construction would be approximately 90 dBA L_{max} at a distance of 50 feet from an active construction area.

Table 3-7. Typical Construction Equipment Noise Levels

Equipment	Acoustical Usage Factor (%)	Maximum Noise Level (L _{max}) at 50 Feet*
Compactor (ground)	20	80
Dump Trucks	40	84
Excavators	40	85
Flatbed Trucks	40	84
Forklift	20	85
Front-End Loaders	40	80
Graders	40	85
Jackhammers	20	85
Pickup Truck	40	55
Pavers	40	84
Pneumatic Tools	50	85
Rollers	20	85
Tractors	40	84

* Maximum noise levels were developed based on Spec 721.560 from the Central Artery/Tunnel (CA/T) program to be consistent with the City of Boston's Noise Code for the "Big Dig" project.

L_{max} = maximum instantaneous noise level

Source: Federal Highway Administration 2018.

Single-family residential units are considered sensitive receptors, and the State Streets neighborhood is a fully developed residential area. In general, construction activities related

to water and sanitary sewer pipeline installation would take place along the centerline of the road, approximately 25 feet from the outside wall of the nearest residences.

Noise modeling for a similar project, the West Capitol Avenue Road Rehabilitation Project, evaluated a concrete saw at a distance of 20 feet from residences, a cement truck at 35 feet, and a paver at 55 feet (LSA Associates 2019). The results indicate that the residences would be exposed to exterior noise levels of up to 97.5 dBA Lmax and interior noise levels as loud as 65.9 dBA Leq with an exterior-to-interior attenuation of 25 dBA applied. Therefore, some residential sensitive noise receptors could be exposed to short-term noise impacts that would exceed the City's daytime exterior and interior noise level standards for residential uses. In all, active construction would take place in front of each affected residence for approximately 6 days over the year-long construction period. However, noise levels during the brief period of active construction outside each residence could exceed the City's noise thresholds, resulting in a significant impact.

Following the completion of construction, the Proposed Project would not generate new or increased noise sources or increase long-term noise levels above existing conditions. Once operational, the Project would not result in the exposure of persons to or generation of noise levels in excess of City standards.

Implementation of **Mitigation Measures NOI-1** through **NOI-5** would reduce construction noise levels at the sensitive receptors to the extent feasible and, in addition, would require the City to provide lodging accommodations to affected residents, if requested, while active construction is taking place, thus removing affected residents from the construction areas and eliminating construction noise impacts for such sensitive receptors. Therefore, construction noise impacts on sensitive receptors would be **less than significant with mitigation**.

Mitigation Measure NOI-1. Equip Construction Equipment with Mufflers.

Prior to any construction activity, the construction contractor (confirmed by the City), shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.

Mitigation Measure NOI-2. Locate Staging Areas Away from Residences.

Prior to and during any construction activity, the construction contractor (confirmed by the City or a City-appointed noise liaison) shall locate equipment staging in areas that would create the greatest possible distance between construction-related noise sources and residences.

Mitigation Measure NOI-3. Limit Construction Hours.

The construction contractor, through enforcement by the City, shall ensure that all general construction-related activities be restricted to the daytime hours of 7:00 a.m. to 7:00 p.m., Monday through Friday. Construction activities shall be restricted from occurring on weekends (Saturday and Sunday) and on holidays.

Mitigation Measure NOI-4. Appoint a Construction Noise Liaison, Enforce Noise Requirements, and Respond to Noise Complaints.

The City shall appoint a construction noise liaison who shall be responsible for responding to any local complaints about construction noise. The City shall facilitate a focus meeting with project area residents, the construction contractor, and the noise liaison to notify residents of potential impacts and measures to reduce such impacts.

If a noise complaint related to construction is received, the construction noise liaison shall determine the cause of the construction noise issue (e.g., construction activities outside of City authorized times, bad muffler) and shall enforce existing City noise requirements with the construction contractor. If the noise complaint cannot be resolved through enforcement, Mitigation Measure NOI-5 shall be implemented.

Mitigation Measure NOI-5. Notify Residents Before Active Construction Begins and Provide Lodging Accommodations by Request.

At least 2 weeks (14 days) prior to commencement of construction activities within 500 feet (two blocks) of residences, the City (in coordination with the construction contractor and construction noise liaison) shall provide written notification to those residences of construction activities, the intended length of occurrence, the potential occurrence for short-term noise level increases, and noise liaison contact information. The written notification may be distributed to residences in person or by mail.

The City shall also inform residents of the option to relocate temporarily to off-site lodging accommodations during active construction to reduce construction noise impacts. Lodging accommodations will be arranged at the City's discretion. Affected residents shall request such accommodations through the City-appointed noise liaison.

b. Generation of excessive groundborne vibration or groundborne noise levels (Less than Significant with Mitigation)

Vibration thresholds for buildings occur at a PPV of 0.12 in/sec for buildings extremely susceptible to vibration damage; the human perception threshold is at 65 VdB. Vibration and ground-borne noise levels were estimated following methods described in the Federal Transit Administration (FTA) Noise and Vibration Impact Assessment (FTA 2006) to determine the PPV that would potentially impact buildings and the VdB for annoyance.

Ground vibrations from construction activities do not often reach the levels that can damage structures, but they can achieve the audible and feelable ranges in buildings very close to the site. The construction activities that typically generate the most severe vibrations are blasting and impact pile driving. The primary concern associated with such vibrations is annoyance. Various types of construction equipment have been measured under a wide variety of construction activities, with an average of source levels reported in terms of velocity. During construction, general construction equipment is expected to be used, including off-highway trucks, off-highway tractors, excavators, pavers, compaction equipment (rollers), dump trucks, hauling equipment, and loaders. **Table 3-8** shows the vibration levels of various types

of construction equipment measured in PPV and VdB at a distance of 25 feet from the equipment.

Table 3-8. Vibration Source Levels for Construction Equipment

Construction Equipment	PPV at 25 feet (in/sec)	Approximate VdB at 25 feet
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Notes: in/sec = inches per second; PPV = peak particle velocity; VdB = vibration velocity decibels

Source: Federal Transit Administration 2006.

As indicated in Table 3-8, construction equipment used in the project area would be well below the damage threshold for typical residential buildings. Construction-generated vibrations are not expected to cause damage to nearby buildings or sensitive receptors. However, implementation of Mitigation Measures NOI-3 through NOI-5 would further reduce impacts related to groundborne vibration or groundborne noise. Therefore, this impact would be **less than significant with mitigation**.

c. For a project located within the vicinity of a private airstrip or an airport land use plan area, or, within 2 miles of a public airport or public-use airport, would the project expose people residing or working in the project site to excessive noise levels (No Impact)

The project area is not within an airport land use plan or within 2 miles of a public airport; therefore, **no impact** would occur.

3.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the Project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a. Induce unplanned population growth (No Impact)

The Proposed Project would involve repair, rehabilitation, and replacement of water and sanitary sewer infrastructure and minor street improvements in a fully developed urban neighborhood. Water and sewer conveyance facilities would be upgraded but the capacity to serve new connections would not be increased. Therefore, no potential for population growth would result from the Proposed Project, and there would be **no impact**.

b. Displace a substantial number of existing people or housing (No Impact)

During construction activities for the repair, rehabilitation, and replacement of water and sanitary sewer facilities, city streets in the State Streets neighborhood would be trenched and excavated to remove and install pipelines. This activity would be conducted incrementally over a 6-month period. Trenches would be covered during non-work hours to maintain access for neighborhood residents. The Proposed Project would have **no impact** related to displacement of people or housing.

1 3.15 PUBLIC SERVICES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the Project:				
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2

3 Discussion

4 ***a. Result in adverse physical impacts associated with the provision of***
5 ***new or physically altered governmental facilities or a need for new or***
6 ***physically altered governmental facilities***

7 ***i. Fire protection (Less than Significant)***

8 Repair, rehabilitation, and replacement of water and sanitary sewer mains and pipelines, as
9 well as repair of curb, gutter, and sidewalk and street repair, would not create additional
10 demand for fire protection services. In fact, replacement of the aging water main, as identified
11 in the City's *2015 Water Master Plan Update* (Carollo 2017), would improve water system
12 reliability and supply to customers and improve fire flows in the area. The impact would be
13 **less than significant.**

1 **ii. Police protection (*Less than Significant*)**

2 Repair, rehabilitation, and replacement of water and sanitary sewer mains and pipelines, as
3 well as repair of curb, gutter, and sidewalk and street repair, would not create additional
4 demand for police protection services. Construction activities would be temporary, and
5 operation of the upgraded facilities following construction would be almost entirely
6 belowground. The impact would be **less than significant**.

7 **iii. Schools (*No Impact*)**

8 The nearest school to the project area is Westmore Oaks Elementary School, located 0.8 mile
9 northwest of the neighborhood at 1100 Clarendon Street. No schools are located within the
10 project area or would be affected by construction activities. As described in item 3.14(a) in
11 Section 3.14, "Population and Housing," the Proposed Project would not induce population
12 growth. There would be **no impact** on schools.

13 **iv. Parks (*Less than Significant*)**

14 Three small neighborhood parks are located within the project area: Circle Park, Memorial
15 Park, and Sam Combs Park. Construction activities for the Proposed Project would not
16 preclude neighborhood residents from visiting these parks, except for the brief periods when
17 work is actively underway in the streets adjacent to each park. The Proposed Project may
18 improve the quality of water service to the parks by eliminating leaks in the pipelines, which
19 would benefit park visitors. The impact of the Proposed Project on parks would be **less than**
20 **significant**.

21 **v. Other public facilities (*No Impact*)**

22 No public library or other public facilities are located within the project area that could be
23 affected by the Proposed Project. There would be **no impact** on other public facilities.

3.16 RECREATION

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the Project:				
a. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Three neighborhood parks are located with the project area, as described in **Table 3-9**.

Table 3-9. Recreational Facilities in the Project Area

Park	Address	Size	Facilities	Ownership
Sam Combs Park	205 Stone Boulevard	4.5 acres	Picnic area; BBQs; tot lot; horseshoe pits; fenced, off-leash dog play area; restrooms; walking paths	Owned by Port of Sacramento; maintained by the City of West Sacramento
Memorial Park	401 Regent Street	4.0 acres	4 baseball diamonds; picnic area; tot lot; horseshoe pits; half-court basketball; restrooms	City of West Sacramento
Circle Park	1509 Circle Street	0.3 acre	Picnic tables, trees	City of West Sacramento

Source: Local Wiki West Sacramento 2019

a. Increase use of existing parks or recreational facilities (Less than Significant)

The Proposed Project would involve repair, rehabilitation, and replacement of water and sanitary sewer infrastructure and minor street improvements in a fully developed urban neighborhood. Construction activities would not obstruct or interfere with access to or use of the existing parks in the project area because construction would proceed as with the adjacent residential properties. Operation of the improved infrastructure could benefit park landscaping and restrooms, and ADA-related installation of curb ramps would improve access to these areas; however, the Proposed Project would not generate additional population that could increase use of the facilities. The impact would be **less than significant** related to existing parks.

b. Creation of new or altered recreational facilities (No Impact)

As described in item 3.14(a) in Section 3.14, "Population and Housing," the Proposed Project would not induce population growth. Therefore, there would be no need for creation of new or altered recreational facilities. There would be **no impact**.

1 **3.17 TRANSPORTATION**

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the Project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b), "Criteria for Analyzing Transportation Impacts"?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2

3 **Discussion**

4 Project-related activities would take place entirely within the State Streets residential
 5 neighborhood, bounded by Jefferson Boulevard, Park Boulevard, 15th Street, and Stone
 6 Boulevard. Construction activities would consist of trenching, excavation, removal,
 7 installation, and recovering of water and sewer mains and pipelines within the right-of-way
 8 of residential streets. Rehabilitation of curb, gutter, and sidewalk and repaving would also
 9 take place in some areas. As described in Section 2.5.5, "Construction Equipment," in Chapter
 10 2, *Project Description*, approximately 20-35 construction workers would commute to and
 11 from the project site each work day over the approximately 18-month work period. Following
 12 the completion of construction activities, operation of the Proposed Project facilities would
 13 remain unchanged from existing conditions, and no increase in traffic would result in the long
 14 term.

15 The City of West Sacramento General Plan EIR indicates that no intersections in the project
 16 area are operating at unacceptable levels of service (LOS), although the Jefferson
 17 Boulevard/Park Street interchange with U.S. Highway 50 westbound ramps operates at LOS
 18 E during the a.m. peak hour (City of West Sacramento 2016a). The Stone Boulevard and 15th
 19 Street intersections with Jefferson Boulevard operate at acceptable LOS during a.m. and p.m.
 20 peak hours (City of West Sacramento 2016a).

21 The project area is served by YOLOBUS Routes 35 and 39, and Class II bike lanes are present
 22 on Park Boulevard and Jefferson Boulevard in and adjacent to the project area (City of West

1 Sacramento 2016a). Pedestrian facilities in the project area consist of sidewalks throughout
2 the neighborhood on both sides of the street.

3 ***a. Conflict with program, plan, ordinance or policy addressing the***
4 ***circulation system, including transit, roadways, bicycle and pedestrian***
5 ***facilities (No Impact)***

6 In addition to replacing and rehabilitating water and sanitary sewer mains and pipelines, the
7 Proposed Project repair curb, gutter, and sidewalk and rehabilitate deteriorating pavement
8 along residential streets in the State Streets neighborhood. These improvements would be
9 consistent with policies on Complete Streets, including accessibility (M-2.4), street amenities
10 (M-2.5) and retrofits (M-2.10); and policies on walkability, including sidewalk safety and
11 pedestrian-friendly sidewalk design (M-6.1, 6.2, and 6.3), found in the City of West
12 Sacramento General Plan Mobility Element (City of West Sacramento 2016b). The Proposed
13 Project would not conflict with any applicable plan, ordinance, or policy establishing
14 measures of effectiveness for the performance of the circulation system. **No impact** would
15 result.

16 ***b. Conflict or be inconsistent with CEQA Guidelines section 15064.3,***
17 ***subdivision (b), "Criteria for Analyzing Transportation Impacts" (No***
18 ***Impact)***

19 The Proposed Project would increase construction vehicle traffic in the short term during
20 construction activities, but operation of project facilities would remain essentially the same
21 as under existing conditions and would result in no additional long-term vehicle trips. As a
22 result, there would be **no impact** related to vehicle miles traveled as a result of the Proposed
23 Project.

24 ***c. Result in increased hazards resulting from geometric design features***
25 ***(Less than Significant)***

26 During construction, the Proposed Project would not require any planned detours, and
27 existing driveways to residences would be maintained. Construction is expected to have a
28 duration of approximately 18 months overall and would occur in a linear pattern, such that
29 construction activities at any specific location would occur for a limited duration.
30 Construction activities would generate an increase in vehicular traffic associated with
31 construction equipment/trucks and personnel traveling to and from the project site.
32 However, 25-30 construction workers would commute to the area each day and would park
33 nearby; in addition, construction equipment would need to be stored over nights and
34 weekends. Parking worker vehicles and construction equipment on city streets could
35 obstruct traffic on narrow residential streets, make parking access difficult for residents, and
36 create hazards for vehicles and pedestrians related to obstructed views. Although the
37 increase in traffic hazards resulting from construction activities would be temporary, the
38 resulting traffic conditions for neighborhood residents could be significant. Implementation
39 of **Mitigation Measure TR-1 (Park and Stage Construction Equipment in Off-street**
40 **Areas Where Possible)** would reduce hazards related to construction traffic by removing
41 the source of potential hazard.

Mitigation Measure TR-1. Park and Stage Construction Equipment in Off-street Areas Where Possible.

Before construction begins, the City shall identify parking lots or other off-street locations within or near the project roadways where construction worker vehicles and construction equipment can be parked without interfering with the safety and visibility of streets in the project area. Such areas may include parking lots of commercial establishments, churches, and other facilities. The City will identify appropriate areas for construction worker vehicles that are near to work zones, as well as staging areas that can be appropriately secured. These areas will be indicated on project plans and specifications.

As described in item 3.17(a) above, the Proposed Project includes features that would improve safety for motorized vehicles, nonmotorized transport, and pedestrians traveling in and through the area. Deteriorating pavement and sidewalks would be repaired, reducing the potential for accidents that could result in damage to people or property. Operation of the Proposed Project would not result in any hazardous design features or incompatible uses.

Overall, Mitigation Measure TR-1 would avoid potential traffic and pedestrian hazards from on-street crowding and obstructed visibility. This impact would be **less than significant with mitigation**.

d. Result in inadequate emergency access (Less than Significant)

Construction of the Proposed Project would not require roadway closure or detours. Because the residential streets are narrow and on-street parking is permitted in the project area, however, construction activities could partially obstruct travel on these streets, which could impair emergency access within the State Streets neighborhood. No road closures or traffic detours are anticipated as a result of project-related construction. As required by City standards, the construction contractor would provide advance notice to emergency service providers regarding the timing, location, and duration of construction activities. The impact on emergency access would be **less than significant**.

1 3.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the Proposed Project:				
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2

3 Discussion

4 As discussed in Section 3.5, "Cultural Resources", the Proposed Project is in the ancestral
5 territory of the Nisenan peoples and the area was likely used by the Patwin. The UAIC and the
6 Yocha Dehe Wintun Nation, both tribes with a traditional and cultural affiliation to the Project
7 area, had previously requested consultation with the City on department projects pursuant
8 to PRC § 21080.3.1. As a result, the City sent Project notification letters, dated February 1,
9 2019, to both tribes via U.S. mail with a returned receipt. The Yocha Dehe Wintun Nation
10 responded in a letter dated February 19, 2019, stating that the tribe "would like to participate
11 in ongoing consultation." The City met with Yocha Dehe representatives on April 8, 2019 to
12 discuss tribal concerns such as the need to conduct sensitivity training for construction
13 workers and monitoring of the project for the discovery of buried Native American resources.
14 Yocha Dehe subsequently sent a letter, dated May 2, 2019, in which they requested a meeting
15 to set up a monitoring agreement. A second meeting was held on August 7, 2019. At both
16 meetings, the City agreed to conduct cultural resources sensitivity training for construction

personnel but did not commit to having archaeological or tribal monitors present during construction since information about the presence of buried resources could not be substantiated. The tribe's request for monitoring was based on the locations of buried deposits that had previously been discovered during construction within West Sacramento, and because the States Streets area had been paved over since the early to mid-1900s, prior to the advent of conducting environmental review.

The UAIC responded in a letter dated March 11, 2019. The letter requested consultation under AB 52, copies of all cultural resources record search materials and environmental documents, and indicated a desire to meet to discuss the project. The City provided the tribe with the available requested information on March 26, 2019. In an email dated March 29, 2019, UAIC declined a field review of the project area since the entire area is developed and paved; however, they expressed concern over the presence of a village site near the project area. UAIC ultimately decided against a meeting with the City but offered to forward mitigation measures for consideration. However, additional information was not forthcoming from the tribe. After several unsuccessful attempts to engage the tribe about the mitigation measures, the City requested termination of AB 52 consultation in an email dated August 30, 2019.

Table 3-10 lists all those contacted and summarizes the results of the consultation. All correspondence between the NAHC, Native American tribes, and the City is provided in **Appendix C**.

Table 3-10. Native American Consultation

Organization/Tribe	Name of Contact	Letter Date	Comments
United Auburn Indian Community of the Auburn Rancheria	Gene Whitehouse, Chairperson	February 1, 2019	<p>03/11/2019: UAIC requested consultation under AB52, copies of all reports and record search material. Requested meeting to discuss the project.</p> <p>03/26/2019: The City responded via email requesting preferred dates for a meeting.</p> <p>03/29/2019: UAIC noted that a site visit would not be productive since the area is developed. They also noted the presence of a village nearby, and offered to send TCR mitigation measures preferred by the tribe.</p> <p>04/03/2019: City requested copy of mitigation measures.</p> <p>05/08/2019: City followed up with request for MMs; noted that they will move forward with the project if they don't hear from the tribe.</p> <p>05/22/2019: City again followed up; requested response by May 29, 2019.</p> <p>06/19/2019: The tribe was supplied a link to the 65% design plans for their review.</p>

Organization/Tribe	Name of Contact	Letter Date	Comments
			8/30/19: Mitigation measures provided for review and comment; email sent by City indicating that, unless additional response was received, consultation would be terminated on September 20, 2019.
Yocha Dehe Wintun Nation	Laverne Bill, Cultural Resources Manager	February 1, 2019	02/19/2019 letter: Tribe "would like to participate in ongoing consultation." Does not specifically refer to AB52 03/18/2019: City emailed Laverne to schedule a meeting. 04/08/2019: Meeting with City and Yocha Dehe. 05/02/2019: City received letter requesting meeting to set up monitoring agreement. 05/06/2019: City sent email requesting dates for a meeting. 06/19/2019: The tribe was supplied a link to the 65% design plans for their review. 08/07/2019: Meeting with City and Yocha Dehe. 08/27/2019: Mitigation measures provided for review and comment. Consultation concluded.

a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k) (Less than Significant)

No known TCRs that are listed or eligible for listing in the CRHR or a local register of historical resources have been identified within the project area. Therefore, the impact on TCRs under this category would be **less than significant**.

Native American archaeological deposits may be identified during project construction. These resources may be determined to be TCRs and eligible for listing in the California

1 Register of Historical Resources. Impacts to TCRs discovered in this manner are discussed
2 under item 3.18(b) below.

3 **ii. A resource determined by the lead agency, in its discretion and**
4 **supported by substantial evidence, to be significant pursuant to**
5 **criteria set forth in subdivision (c) of Public Resources Code**
6 **Section 5024.1. In applying the criteria set forth in subdivision (c)**
7 **of Public Resource Code Section 5024.1, the lead agency shall**
8 **consider the significance of the resource to a California Native**
9 **American tribe (*Less than Significant with Mitigation*)**

10 As mentioned above, although the City notified tribes with a traditional and cultural
11 affiliation with the area about the Proposed Project, none of the tribes contacted
12 identified TCRs in the Project area. Furthermore, no TCRs determined by the lead agency,
13 in its discretion and supported by substantial evidence, to be significant are known to be
14 located in the project vicinity. As a result, it appears that there would be no impact to
15 known TCRs.

16 However, both the UAIC and Yocha Dehe expressed concerns over the potential for buried
17 native American Resources within the Project footprint and it is possible that Native
18 American archaeological remains or Native American human remains that could be
19 determined to be TCRs could be discovered during construction. If such resources are
20 identified, they would be treated according to Mitigation Measure CR-1 or Mitigation
21 Measure CR-2, respectively, as described in Section 3.5, Cultural Resources.
22 Implementation of these mitigation measures would result in a less-than-significant
23 impact with regard to TCRs. As a result, this impact would be **less than significant with**
24 **mitigation.**

1 3.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the Project:				
a. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2

3 Discussion

4 The City obtains water supplies from the Sacramento River, which is then treated at its
 5 George Kristoff Water Treatment Plant (GKWTP) (City of West Sacramento 2016). The City's
 6 total annual production ranged from 4,490 million gallons (MG) in 2010 to 5,260 MG in 2013.
 7 The average daily demand in 2015 was 14.2 million gallons per day (MGD); this value is
 8 projected to increase to 23.9 MGD by 2035 (City of West Sacramento 2016).

9 The City collects sewage within its City limits and then conveys it to the Sacramento Regional
 10 Wastewater Treatment Plant (SRWWTP) for treatment (City of West Sacramento 2018a). The
 11 City operates a separate storm sewer system that collects stormwater runoff in its service

1 area and discharges it to local waterways, such as the Sacramento River and the deep water
2 ship channel (City of West Sacramento 2018b).

3 The Yolo County Central Landfill is the only active solid waste landfill in Yolo County. This
4 landfill accepts 1,800 tons of solid waste per day and is projected to close operations in 2081
5 (Cal Recycle 2018a).

6 Hazardous waste landfills in California are approaching capacity issues, but the Clean
7 Harbors, LLC facility in Buttonwillow accepts 10,500 tons per day and is not projected to close
8 until 2040 (California Department of Resources Recycling and Recovery [CalRecycle] 2018b).
9 The Kettleman Hills facility in Kettleman City operated by Chemical Waste Management, Inc.
10 accepts 8,000 tons per day and had a remaining capacity of 6,000,000 cubic yards in 2000
11 (the last year for which information was available) (CalRecycle 2018c).

12 The purpose of the State Streets Water Capacity and Sewer Rehabilitation Project is to correct
13 some of the infrastructure deficiencies identified in the *2015 Water System Master Plan*
14 *Update* (City of West Sacramento 2017a) and *2015 Sanitary Sewer Master Plan Update* (City
15 of West Sacramento 2017b), as well as conducting additional pavement and curb/gutter
16 maintenance activities in the area. The Proposed Project would replace approximately 9,600
17 feet of water main within eight residential streets in the State Streets neighborhood and
18 approximately 36,000 feet of sewer pipelines within the area bounded by Jefferson
19 Boulevard, Park Boulevard, Stone Boulevard, and 15th Street.

20 ***a. Require the relocation or construction of new or expanded water,***
21 ***wastewater treatment, or stormwater drainage, electric power,***
22 ***natural gas, or telecommunications facilities, or expansion of existing***
23 ***facilities, the construction or relocation of which could cause***
24 ***significant environmental effects (No Impact)***

25 The Proposed Project would consist of relocation/replacement and construction of new
26 water and sanitary sewer pipelines. The environmental effects of these activities are the
27 subject of this IS/MND. **No impact** related to stormwater drainage, electrical power, natural
28 gas, or telecommunications facilities would result.

29 ***b. Have sufficient water supplies available to serve the project and***
30 ***reasonably foreseeable future development during normal, dry and***
31 ***multiple dry years (No Impact)***

32 The Proposed Project involves repair, rehabilitation, and replacement of water and sewer
33 pipelines in a fully developed urban area. No additional water supply would be needed for
34 construction or operation of the Proposed Project; in fact, the water main repair could result
35 in water savings because existing leaks in the system would be identified and corrected.
36 There would be **no impact**.

c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments (No Impact)

The Proposed Project involves repair, rehabilitation, and replacement of water and sewer pipelines in a fully developed urban area. No additional wastewater treatment would be needed for construction or operation of the Proposed Project. There would be **no impact**.

d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals (Less than Significant)

Project construction activities could generate solid waste as a result of excavation and removal of water and sanitary sewer mains, pipelines, and associated materials. Much of this material could potentially be recycled rather than disposed of in a landfill; however, assuming all the material were sent to the landfill, it would not exceed existing landfill's capacity. As described above, the Yolo County Central Landfill accepts 1,800 tons of solid waste per day and is projected to close operations in 2081. As also described above, hazardous waste landfills in Kettleman City and/or Buttonwillow would have capacity to accept any hazardous waste that would require disposal during project construction activities.

Following installation of water and sanitary sewer pipelines and associated street improvements, no additional facilities would be constructed and no solid waste would be generated in the project area. Therefore, this impact would be **less than significant**.

e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste (Less than Significant)

The California Integrated Waste Management Act (CIWMA) of 1989 (PRC, Division 30) requires all California cities and counties to implement programs to reduce, recycle, and compost wastes by at least 50 percent by 2000 (PRC § 41780). The State, acting through the California Integrated Waste Management Board, determines compliance with this mandate based on jurisdictions' per-capita disposal rates. In accordance with the CIWMA, the City would seek to divert at least 50% of the Project's solid waste from the landfill; the majority of excavated soil would be returned to the source trenches, and replaced piping would be recycled where possible. This impact would be **less than significant**.

1 3.20 WILDFIRE

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2

3 Discussion

4 The California Department of Forestry and Fire Protection (CAL FIRE) has classified the City
 5 of West Sacramento as a Local Responsibility Area – Unzoned with regard to fire hazard
 6 severity (CAL FIRE 2007). In 2008, CAL FIRE determined that Yolo County has no Very High
 7 Fire Hazard Severity Zones (CAL FIRE 2008). Therefore, the questions in Section 3.20,
 8 “Wildfire,” of the Environmental Checklist do not apply and the Proposed Project would have
 9 **no impact** related to very high fire hazard severity zones.

1 3.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2 Discussion

3 *a. Effects on environmental quality, fish or wildlife, and historic* 4 *resources (Less than Significant with Mitigation)*

5 Implementation of the Proposed Project would not adversely affect sensitive natural
6 communities or special-status animals, but would have the potential to affect nesting birds
7 and mammals and previously undiscovered cultural resources and/or human remains. With
8 implementation of the mitigation measures identified in this IS/MND, compliance with City
9 General Plan policies, and application of standard BMPs during construction, development of
10 the Project would not:

- 11 ☐ Degrade the quality of the environment;
- 12 ☐ Substantially reduce or impact the habitat of fish or wildlife species;
- 13 ☐ Cause fish or wildlife populations to drop below self-sustaining levels;
- 14 ☐ Threaten to eliminate a plant or animal community;

- Reduce the number or restrict the range of a rare or endangered plant or animal; or
- Eliminate important examples of the major periods of California history or prehistory.

Therefore, the Proposed Project's impact would be **less than significant with mitigation**.

b. Cumulative impacts (Less than Significant with Mitigation)

The impacts of the Proposed Project would be individually limited and not cumulatively considerable. The Proposed Project would involve upgrading water and sanitary sewer infrastructure, rehabilitating water and sewer mains, and repairing and/or replacing curbs, gutters, sidewalks, and retrofits required to comply with the ADA and replace deficient and failed street sections. All environmental impacts that could occur as a result of the Proposed Project would be **less than significant with mitigation** recommended throughout this IS/MND. When viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, development of this Proposed Project would not make a significant contribution to significant cumulative impacts.

c. Effects on human beings (Less than Significant with Mitigation)

The purpose of the Proposed Project is to upgrade water and sanitary sewer infrastructure, replace water and sewer mains, replace or rehabilitate aging sewer pipelines as needed, and repair and/or remove and replace curbs, gutters, sidewalks, and retrofits required to comply with the ADA and replace deficient and failed street sections. As described in this IS/MND, implementation of the Proposed Project could result in temporary biology, cultural, geology/soils/seismicity, noise, transportation, and tribal cultural resource impacts during the construction period. Implementation of the mitigation measures recommended in this IS/MND, compliance with City regulations, and application of standard construction practices would ensure that the Proposed Project would not result in environmental impacts that would cause substantial direct or indirect adverse impacts on human beings. The impact would be **less than significant with mitigation** recommended throughout this IS/MND.

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Chapter 4
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