# California Highway Patrol Academy

## Drainage Channel Improvements Project

Initial Study/Mitigated Negative Declaration

November 2019

## CALIFORNIA HIGHWAY PATROL

# CHP Academy Drainage Channel Improvements Project

## Initial Study/Mitigated Negative Declaration

Prepared for:

State of California
Department of General Services
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On behalf of the Lead Agency:

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# Acronyms and Abbreviations

**A**

| | |
|---|---|
| AB | Assembly Bill |
| AFY | acre-feet per year |
| amplitude | pressure level or energy content |
| APE | area of potential effects |
| APN | assessor's parcel number |
| AST | above-ground storage tank |
| ATCM | airborne toxic control measure |

**B**

| | |
|---|---|
| BAAQMD | Bay Area Air Quality Management District |
| Basin Plan | Central Valley RWQCB's Water Quality Control Plan |
| bgs | below ground surface |
| BMP | best management practice |

**C**

| | |
|---|---|
| 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 |
| CalEEMod | California Emissions Estimator Model |
| CalEPA | California Environmental Protection Agency |
| Caltrans | California Department of Transportation |
| CARB | California Air Resources Board |
| CCR | California Code of Regulations |
| CDFW | California Department of Fish and Wildlife |
| CDOC | California Department of Conservation |
| CEC | California Energy Commission |
| CEQA | California Environmental Quality Act |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act (also known as the Superfund Act) |
| CESA | California Endangered Species Act |
| CF&G | California Fish and Game |
| CFR | Code of Federal Regulations |
| CGS | California Geological Survey |
| CHP | California Highway Patrol |
| CNDDB | California Natural Diversity Database |
| CNEL | Community Noise Equivalent Level |
| CNPS | California Native Plant Society |
| CO | carbon monoxide |

| | |
|---|---|
| $CO_2$ | carbon dioxide |
| $CO_2e$ | carbon dioxide equivalents |
| CRHR | California Register of Historical Resources |
| CUPA | Certified Unified Program Agency |
| CWA | Clean Water Act |
| cy | cubic yards |

**D**

| | |
|---|---|
| dB | decibel |
| dBA | A-weighted decibel |
| dbh | diameter at breast height |
| DGS | California Department of General Services |
| DPM | diesel particulate matter |
| DTSC | California Department of Toxic Substances Control |
| DWR | California Department of Water Resources |

**E**

| | |
|---|---|
| EIA | U.S. Energy Information Administration |
| EIR | Environmental Impact Report |
| EO | Executive Order |
| ESA | Endangered Species Act |
| EVOC | emergency vehicle operations course |

**F**

| | |
|---|---|
| Farmland | Prime Farmland, Unique Farmland, or Farmland of Statewide Importance |
| FEMA | Federal Emergency Management Agency |
| FHSZ | Fire Hazard Severity Zones |
| FMMP | Farmland Mapping and Monitoring Program |
| frequency | rate of oscillation of sound waves |
| ft | feet |
| $ft^2$ | square feet |
| FTA | Federal Transit Administration |

**G**

| | |
|---|---|
| General Permit | State's General Permit for Storm Water Discharges Associated with Construction Activity |
| GHG | greenhouse gas |
| GSA | Groundwater Sustainability Agency |
| GSP | groundwater sustainability plan |

**H**

| | |
|---|---|
| HCP | habitat conservation plan |
| HI | hazard index |

| | |
|---|---|
| HRA | health risk assessment |
| Hz | Hertz |

**I**

| | |
|---|---|
| IS | initial study |

**J**

**K**

| | |
|---|---|
| KOP | key observation point |
| KW | kilowatt |

**L**

| | |
|---|---|
| $L_{dn}$ | energy average of the A weighted sound levels occurring during a 24-hour period |
| $L_{eq}$ | equivalent steady-state sound level |
| $L_{max}$ | maximum sound level measured during a given measurement period |
| $L_{min}$ | minimum sound level measured during a given measurement period |
| LNWI | Lower Northwest Interceptor |
| LOS | level of service |
| LRA | Local Responsibility Areas |
| LSAA | Lake and Streambed Alteration Agreement |
| LUST | leaking underground storage tank |
| $L_{xx}$ | sound level exceeded x percent of a specific time period |

**M**

| | |
|---|---|
| MBTA | Migratory Bird Treaty Act |
| mgd | million gallons per day |
| MLD | most likely descendent |
| MMT $CO_2e$ | million metric tons of carbon dioxide equivalents |
| MND | mitigated negative declaration |
| mph | miles per hour |
| MRZ | Mineral Resource Zone |
| MS4 | municipal separate storm sewer system |
| msl | mean sea level |
| MTBE | methyl tert-butyl ether |
| MT $CO_2e$/yr | metric tons of carbon dioxide equivalents per year |

**N**

| | |
|---|---|
| NAAQS | National Ambient Air Quality Standards |
| NAHC | Native American Heritage Commission |
| NCCP | natural community conservation plan |
| NHPA | National Historic Preservation Act |

| | |
|---|---|
| NHTSA | National Highway Traffic Safety Administration |
| NMFS | National Marine Fisheries Service |
| $NO_2$ | nitrogen dioxide |
| NOx | oxides of nitrogen |
| NPDES | National Pollutant Discharge Elimination System |
| NPPA | Native Plant Protection Act of 1977 |
| NRCS | Natural Resource Conservation Service |
| NRHP | National Register of Historic Places |
| **O** | |
| OEHHA | [California] Office of Environmental Health Hazard Assessment |
| OSHA | Occupational Safety and Health Administration |
| **P** | |
| PM10 | particulate matter of aerodynamic radius of 10 micrometers or less |
| PM2.5 | particulate matter of aerodynamic radius of 2.5 micrometers or less |
| Porter–Cologne Act | Porter–Cologne Water Quality Control Act |
| PPV | peak particle velocity |
| Proposed Project | CHP Academy Drainage Improvements Project |
| **R** | |
| RCRA | Resource Conservation and Recovery Act of 1976 |
| ROG | reactive organic gases |
| RPS | Renewables Portfolio Standard |
| RWQCB | Regional Water Quality Control Board |
| **S** | |
| SB | Senate Bill |
| SGMA | Sustainable Groundwater Management Act |
| SMAQMD | Sacramento Metropolitan Air Quality Management District |
| SMARA | Surface Mining and Reclamation Act of 1975 |
| SMUD | Sacramento Municipal Utilities District |
| SOx | sulfur oxide |
| SRA | State Responsibility Area |
| SRCSD | Sacramento County Regional Sanitation District |
| SRWTP | Sacramento Regional Wastewater Treatment Plant |
| SWPPP | stormwater pollution prevention plan |
| SWRCB | State Water Resources Control Board |

**T**

| | |
|---|---|
| TAC | toxic air contaminant |
| TAME | tert-amyl methyl ether |
| TCP | traditional cultural properties |
| TCR | tribal cultural resource |
| TMDL | total maximum daily load |
| TPH | total petroleum hydrocarbons |

**U**

| | |
|---|---|
| UAIC | United Auburn Indian Community of the Auburn Rancheria |
| UCMP | University of California Museum of Paleontology |
| U.S. | United States of America |
| USACE | U.S. Army Corps of Engineers |
| USBR | U.S. Bureau of Reclamation |
| USC | U.S. Code |
| USEPA | U.S. Environmental Protection Agency |
| USFWS | U.S. Fish and Wildlife Service |
| USGBC | U.S. Green Building Council |
| USGS | U.S. Geological Survey |
| UST | underground storage tank |
| UWMP | urban water management plan |

**V**

| | |
|---|---|
| VdB | vibration velocity in decibel |
| VELB | valley elderberry longhorn beetle |
| VHFSZ | very high fire severity zones |
| VOC | volatile organic compound |
| VMT | vehicle miles traveled |

**W**

| | |
|---|---|
| WDR | waste discharge requirement |
| Williamson Act | California Land Conservation Act of 1965 |
| WLA | waste load allocation |
| WPT | western pond turtle |
| WSAFCA | West Sacramento Area Flood Control Agency |
| WSFD | West Sacramento Fire Department |
| WSLIP | West Sacramento Levee Improvement Program |
| WSPD | West Sacramento Police Department |
| WUSD | Washington Unified School District |

**Y**

| | |
|---|---|
| YCHCP | Yolo County Habitat Conservation Plan |

| | |
|---|---|
| YSAQMD | Yolo-Solano Air Quality Management District |

**SYMBOLS**

| | |
|---|---|
| ºF | degrees Fahrenheit |
| § | section |
| ug/l | micrograms per liter |

# Chapter 1.
# INTRODUCTION

The California Highway Patrol (CHP), with assistance from the Department of General Services–Real Estate Services Division (DGS), 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 construction and operation of the proposed CHP Academy Drainage Channel Improvements Project (Proposed Project). The Proposed Project and its location are described in depth in Chapter 2, *Project Description*. This document was prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) of 1970 (as amended) and the CEQA Guidelines (14 California Code of Regulations [CCR] § 15000 *et seq.*).

## 1.1 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 (CEQA Guidelines § 15378). CHP, 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.

The construction plans for the Proposed Project included in this IS/MND are not 100 percent complete. The CHP anticipates that the final construction plan set for the Proposed Project would include some minor modifications to these conceptual plans, and the environmental analysis has been developed with conservative assumptions to accommodate some level of modification.

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/Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

## 1.2 Public Involvement Process

Public disclosure and dialogue are priorities under CEQA. CEQA Guidelines Section (§) 15073 and § 15105(b) require that the lead agency designate a period during the IS/MND process when the public and other agencies can provide comments on the potential impacts of the Proposed Project. Accordingly, the CHP is now circulating this document for a 30-day public and agency review period.

To provide input on this project, please send comments to the following contact:

Jennifer Parson, Senior Environmental Planner
State of California Department of General Services
Real Estate Services Division, Project Management & Development Branch
Energy & Environmental Section
707 Third Street, 4th Floor, MS 509
West Sacramento, CA 95605
Email: chp-drainage-channel-comments@chp-ceqa.com

During its deliberations on whether to approve the Proposed Project, CHP will consider all comments received before 5:00 p.m. on the date identified in the Notice of Intent for closure of the public comment period.

## 1.3 Organization of this Document

This IS/MND contains the following components:

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

Chapter 2, *Project Description*, describes the Proposed Project including its purpose and goals, the site where the Proposed Project would be constructed, the construction approach and activities, and related permits and approvals.

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

Chapter 4, *References*, provides a bibliography of printed references, websites, and personal communications used in preparing this IS/MND.

**Appendices**

Appendix A. *Local Laws, Regulations, and Policies*
Appendix B. *Detailed Construction Plans*
Appendix C. *Air Quality, Energy, and Greenhouse Gas Analysis*
Appendix D. *Biological Resources Background Information*
Appendix E. *Cultural Resources Documentation*
Appendix F. *Noise Analysis*
Appendix G. *Mitigation, Monitoring and Reporting Plan*

## 1.4 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 inclusion of the mitigation measures described.
- An impact is considered *significant or potentially significant* if the analysis concludes that a substantial adverse 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.
- 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.

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# Chapter 2.
# PROJECT DESCRIPTION

## 2.1 Background and Need for the Project

The California Highway Patrol (CHP) is the statewide law enforcement agency responsible for enforcing vehicular and traffic laws on state highways and freeways; regulating the transport of goods, including hazardous waste; and serving as emergency responders to incidents on the state's highway system. CHP's mission is to provide "the highest level of Safety, Service, and Security" (CHP 2019). The CHP Academy campus in West Sacramento provides facilities to train cadets in safety, service, and security. Academy facilities operate 24 hours a day/seven days a week year-round for CHP and other law enforcement training opportunities.

A man-made earthen drainage channel, Channel CH2, runs along the west side of the main campus buildings, and flows from north to south. Channel CH2 was constructed in 1973 as part of the original CHP Academy site grading and drainage improvements. CHP's canine training facility is located adjacent to the upstream end of Channel CH2 and situated in a flat and low-lying area. The CHP canine training facility regularly becomes flooded during winter rainfall events due to incapacities of the existing channel and drainage infrastructure. As a result, use of the full capacity of the canine training facility isn't possible since portions of the facility become flooded during the winter. Access to the canine training facility becomes very difficult if not impossible during and after larger storm events.

The CHP is proposing the Academy Drainage Channel Improvements Project (Proposed Project) to improve the drainage in and around the canine training facility to reduce flooding, including improvements along the entire length of Channel CH2.

## 2.2 Project Purpose and Objectives

The purpose of the Proposed Project is to implement drainage improvements to remedy stormwater conveyance inadequacies in Channel CH2. The primary objective of the Proposed Project is to prevent future flooding at the canine training facility so that the facility can continue to operate and function year-round in full capacity to meet the needs of the CHP training efforts.

Specific project objectives are as follows:

- Maintain year-round access to facilities by reducing number of days that the canine training facility becomes inundated;
- Improve stormwater conveyance around the canine training facility;
- Replace a failing culvert and narrow pedestrian crossing that impede stormwater conveyance; and
- Minimize impacts to existing native trees and vegetation within Channel CH2.

## 2.3 Project Location and Setting

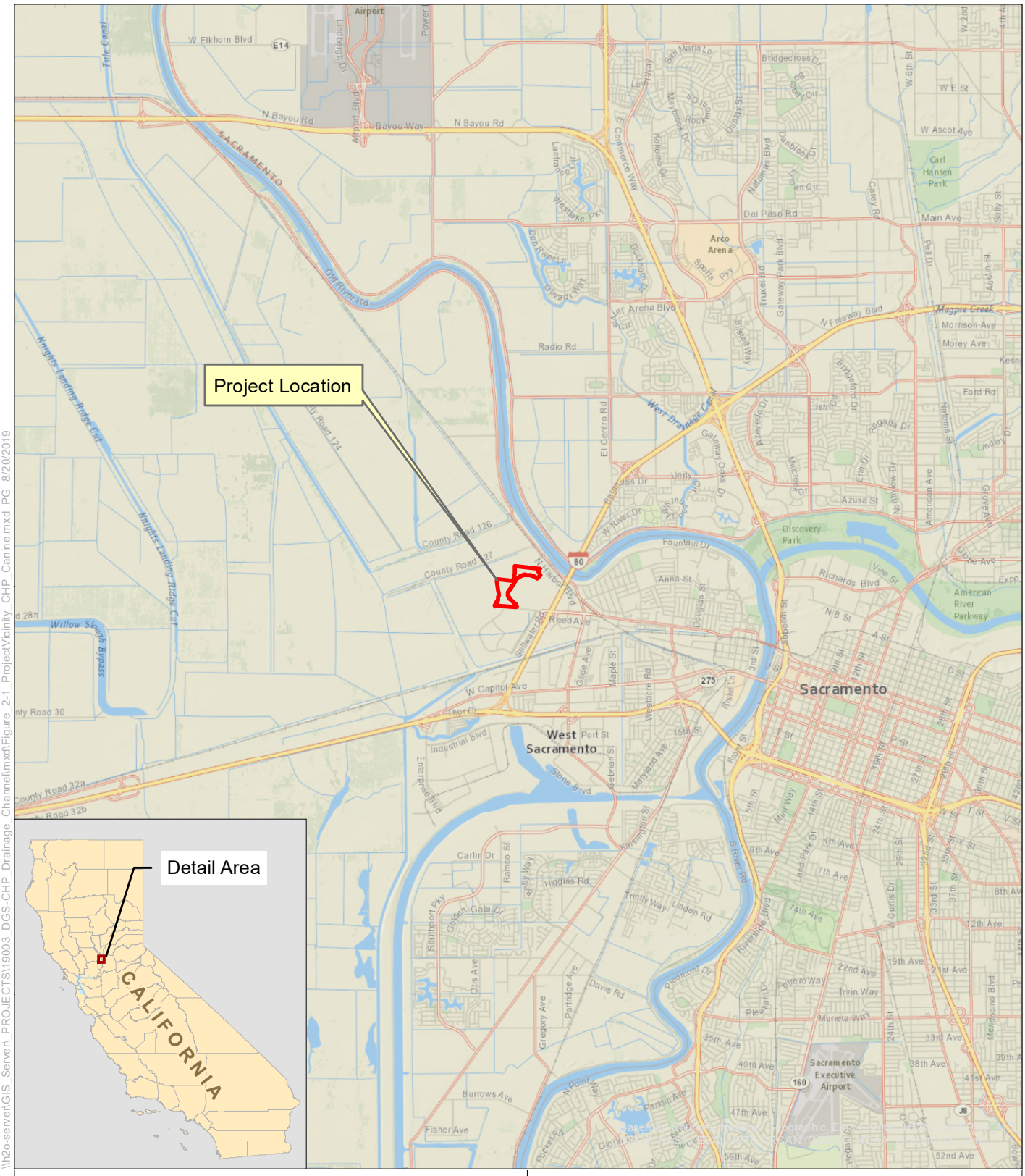
Channel CH2 is located within the CHP Academy at 3500 Reed Avenue in West Sacramento in Yolo County, California. As shown on **Figure 2-1**, the Proposed Project site boundary is situated approximately 0.2 mile southwest of North Harbor Boulevard and the Sacramento River, and 0.3 mile west of Interstate 80. The Sacramento Bypass Wildlife Area is located directly north and Reed Avenue is located just south of the Proposed Project site boundary. The Proposed Project is located northeast of the Yolo Bypass. The main CHP Academy campus facilities are located immediately east of the Proposed Project site boundary. The CHP Emergency Vehicle Operations Course (EVOC) lies to the west of the Project site boundary.

The Proposed Project area encompasses approximately 45 acres. The Proposed Project area boundary begins at Channel CH2's upstream terminus northeast of the canine training facility and borders the south side of the defensive driving area, north of Circle Drive, until it reaches the EVOC facility parking area. From the EVOC facility parking area, the boundary then angles south to the culvert crossing at Peterson Place. The boundary line crosses Peterson Place and angles in a southwesterly direction toward a pedestrian bridge crossing between Smith Boulevard (CHP runway) to the west and Biscaluiz Boulevard entry road to the east. The Proposed Project area boundary then continues south where it ends at Channel CH2's downstream terminus and becomes Channel CH1 (see Figure 2-1).

Within the Proposed Project area boundary, improvements would be made to Channel CH2 and also in some locations near the canine facility. Channel CH2 begins where it has its upstream terminus directly northeast of the canine facility and then traverses along the northern border of the canine facility. From the canine facility, Channel CH2 continues heading west through undeveloped land owned by the CHP before it heads south, slightly southwest, and then south again, terminating at Channel CH1 (see **Figure 2-2**). Channel CH1 is a lined drainage channel adjacent to the Academy perimeter road and north of Reed Avenue. Improvements associated with Channel CH2 would be confined to within the Proposed Project area boundary and are discussed in more detail below.

Improvements associated with the Proposed Project would occur on property owned by CHP. Channel CH2 traverses through the Proposed Project boundary in areas that are relatively flat and contain shrubs, trees, and grassy vegetation. Channel CH2 also crosses through two un-maintained gravel-paved access roads, and under an asphalt access road via a culvert and existing pedestrian bridge. Existing structures within the Proposed Project site boundary belong to the CHP Academy facility.

Adjacent land uses to the Proposed Project area include the CHP's facilities to the north, east, and west, and business park uses to the south. Active facilities within 500 feet of the Proposed Project area include various CHP Academy buildings and facilities and businesses located south of Reed Avenue. The businesses south of Reed Avenue include Mounting Systems Inc., an international manufacturer of solar racking and ground mount systems, located at 820 Riverside Parkway; and Tony's Fine Foods/UNFI Fresh, a food product distribution facility and headquarters, located at 3575 Reed Avenue. Figure 2-2 shows the Proposed Project area and surrounding area.




Prepared by:

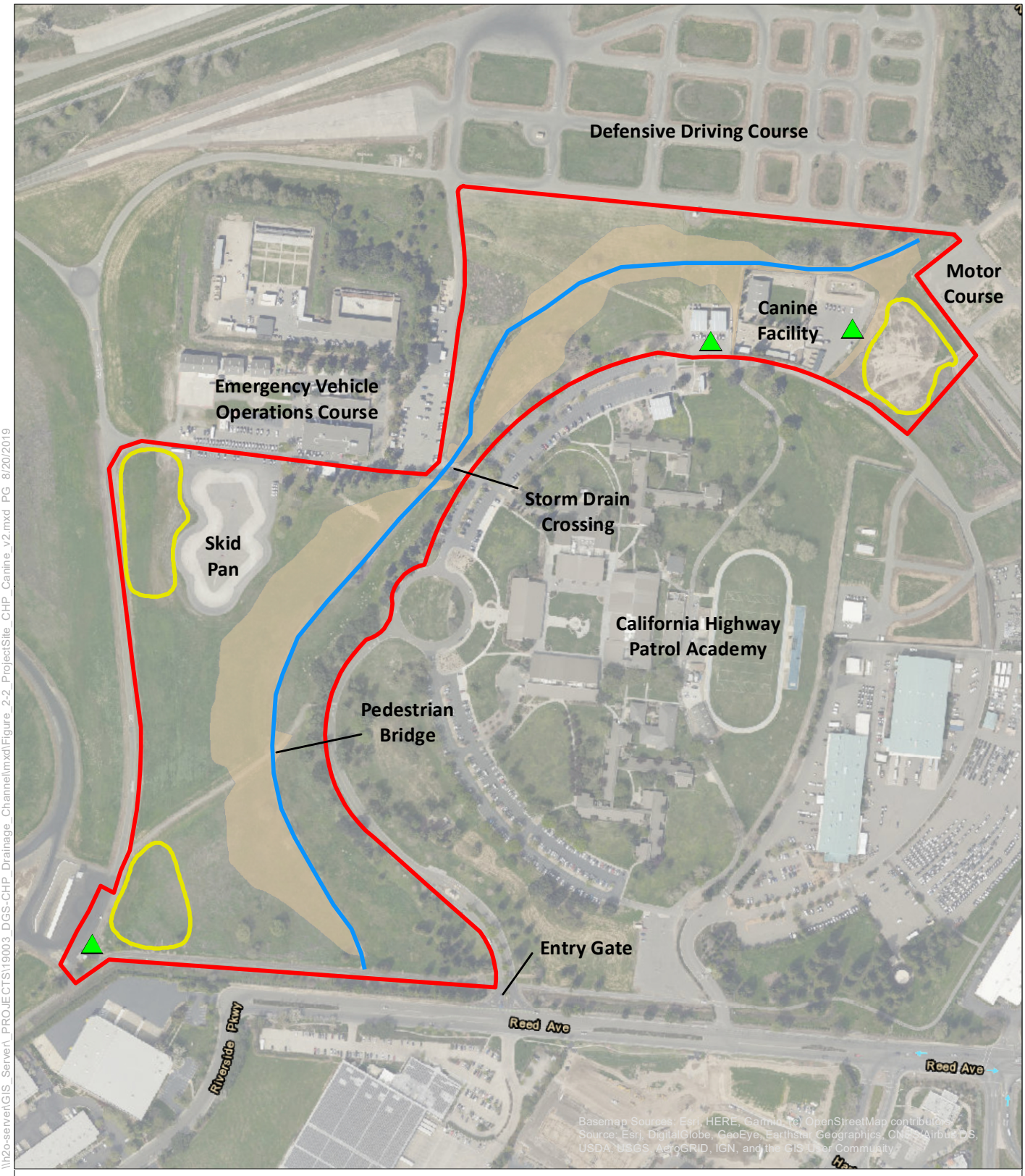
Horizon WATER and ENVIRONMENT

Prepared for:
California Highway Patrol

**Figure 2-1: Project Vicinity**

**CHP Academy Drainage Channel Improvements Project**
**Initial Study/Mitigated Negative Declaration**

\\h2o-server\GIS_Server_PROJECTS\19003_DGS-CHP_Drainage_Channel\mxd\Figure_2-1_ProjectVicinity_CHP_Canine.mxd PG 8/20/2019




Project Area
Proposed Spoils Areas
Proposed Grading Limits
Potential Staging Area
Channel CH2 Alignment

**Figure 2-2**
**Project Site**

Prepared by:
Horizon WATER and ENVIRONMENT

Prepared for:
California Highway Patrol

N

0 250 500
Feet

**CHP Academy Drainage Channel Improvements Project**
**Initial Study/Mitigated Negative Declaration**

\\h2o-server\GIS_Server_PROJECTS\19003_DGS-CHP_Drainage_Channel\mxd\Figure_2-2_ProjectSite_CHP_Canine_v2.mxd PG 8/20/2019

# 2.4 Drainage Improvements

The Proposed Project would involve improvements to Channel CH2 and the installation of ditches, erosion control, concrete V-gutters, and a trench drain.

Improvements to Channel CH2 would include:

- Excavation and widening of approximately 3,600 feet of the channel between the entrance to the CHP Academy off of Reed Avenue and the parking/bunkers north and east of the canine facility;
- Addition of a concrete bottom lining along approximately 1,570 linear feet of the regraded upper channel bottom next to the canine facility;
- Replacement of an existing steel culvert with a new concrete box culvert including wing walls at the EVOC Peterson Place channel crossing;
- Replacement of an existing pedestrian bridge with a new steel frame and concrete abutment tied crossing;
- Addition of approximately 455 linear feet of concrete bottom lining along the lower section of Channel CH2 (optional); and
- Addition of approximately 2,630 square feet of rock rip-rap erosion control.

Installation of the ditches, erosion control, concrete V-gutters, and trench drain would occur around the western, southern, and eastern boundaries of the canine facility. Detailed construction drawings for the Proposed Project can be found in **Appendix A**. Note: the final construction drawings for the Proposed Project may include minor design modifications.

Improvements associated with the Proposed Project would convert approximately 17,250 square feet ($ft^2$) (0.40 acre) of land into impervious surfaces. Improvements to Channel CH2 would involve placement of approximately 16,340 $ft^2$ (0.38 acre) of concrete into the channel. Installation of the concrete v-gutters, trench drain, and headwall would result in the placement of approximately 840 $ft^2$ of concrete. Approximately 190,000 $ft^2$ (4.36 acres) of the area to the north and west of the canine facility would be graded in order to expand the course of drainage. Approximately 800 linear feet (13,200 $ft^2$ or 0.30 acre) of ditch around the western, southern, and eastern boundaries of the canine facility would be excavated in order to create a drainage path around the facility to Channel CH2. Cut material would be hauled to on-site spoil locations designated to the east and west of the canine facility in already disturbed areas.

## 2.4.1 Project Components

The Proposed Project would include excavation of the drainage system; installation of concrete V-gutters, trench drain, headwall, and pavement; grading to expand the drainage course; construction of a gravel road; demolition activities prior to construction; and construction of a temporary gravel driveway. Conceptual locations of these Project components are indicated on the site plans found in Appendix A and are described below.

### *Excavation of Drainage System*

Excavation and widening of Channel CH2 would begin at the entrance to the CHP Academy off of Reed Avenue and continue for approximately 3,600 feet to the parking/bunkers located northeast of the canine facility. The width of the excavated channel would be 8 feet with 4:1 side slopes and a 0.02% to 0.80% gradient. Additionally, the drainage system located on the northwest side of the canine facility grounds would be excavated to allow for proper drainage and would include a lined concrete bottom for ease in maintaining proper elevations. Improvements to Channel CH2 would also result in less disturbance to adjacent vegetation and a decrease in mosquito breeding stagnant waters. The majority of excavated materials would be hauled to one of three on-site spoils disposal areas located within the Proposed Project site boundary (see Figure 2-2).

### *V-Gutters*

Concrete v-gutters would be installed around the canine facility and near Channel CH2 to help facilitate stormwater runoff into Channel CH2. The v-gutters would be installed to create a hardened stormwater flowline to the new trench drain.

### *Trench Drain*

A concrete trench drain would be installed near the southeast corner of the canine facility underneath the pavement. The drain would be 12 inches wide and would replace an existing 8-inch-wide culvert.

### *Headwall*

A 6-inch-wide, 8-foot-long concrete headwall would be installed on both sides of the trench drain.

### *Pavement*

Pavement would be placed to complete culvert replacement areas at existing roads.

### *Grading*

Grading would occur throughout Channel CH2 to re-establish a consistent gradient and develop a new flowline. The larger portion of the excavation would occur near the upper section of the channel to allow for a greater volume of stormwater conveyance away from the canine facility. All excavated spoils would be hauled to the designated on-site spoils disposal areas located east of the Proposed Project. Construction debris (trees, shrubs, grass, asphalt-concrete, corrugated metal pipe) would be transported off site to an approved landfill or recycle center.

### *Gravel Road*

Gravel would be placed in the existing unpaved road that traverses Channel CH2 to allow easier access to work areas around the channel. Concrete headers would be placed in the road to minimize ongoing maintenance in these areas.

### *Demolition*

A 4-foot-wide section of existing pavement and a 6-inch-wide culvert centered on the new trench drain located along the southeast corner of the canine facility would be removed via saw cut method. A 15-foot-wide section of existing pavement centered on the new box culvert and a 48-inch-wide culvert located at Peterson Place and adjacent to the EVOC would also be removed. One 15-inch and one 12-inch-wide culvert on the northwest and west side of the canine facility located within two existing unpaved maintenance roads near the EVOC would be removed. The culverts that would be removed would not be replaced. All removed culverts would be disposed of at an approved landfill or recycle center.

### *Gravel Driveway*

A temporary gravel driveway would be constructed near the southeast corner of the canine facility to allow access to the canine facility during construction of the trench drain. The gravel driveway would be removed prior to the completion of the trench excavation.

### *Revegetation*

All graded and recontoured areas along the CH2 channel would be hydroseeded with a mix of native forbes and grasses suitable to the area.

## 2.4.2 Construction

### *Construction Methods*

**Site Preparation and Earthwork:** Site preparation would include clearing and grubbing, grading, excavation, and hauling spoils to designated spoils disposal sites. It is estimated that approximately 20,000 cubic yards (cy) of excavated spoils would need to be removed from Channel CH2 and surrounding areas in the Proposed Project area. A total of 6,000 cy of these spoils would be hauled off site for disposal; the remaining 14,000 cy would be moved to one of the three on-site spoils locations. Clearing and grubbing of the site, including the removal of on-site vegetation and trees, would be conducted using bulldozers, standard excavators, and hand labor. All debris would be disposed of at an appropriate off-site disposal location. For the purposes of this analysis, the disposal site is presumed to be located within 1 hour of travel time from the Project site.

To the extent feasible, excavated soil would be reused on site. Gravel would be delivered to the Project site by conventional haul trucks (approximately 15 cy per load). Gravel and any reused excavated soil would be placed with an excavator and compacted with a compactor/roller. **Table 2-1** provides the anticipated number of potential worker and construction-related trips for the Proposed Project's various construction phases. Site preparation activities discussed above are divided into two phases (site preparation and grading) for the purpose of estimating worker and construction-related trips.

**Table 2-1.** Comparison of Worker and Construction Trips during Various Construction Phases for the Proposed Project

| Construction Phase | Worker Trips | Vendor Trips | Hauling Trips | Total One-Way Trips by Construction Phase |
|---|---|---|---|---|
| Demolition | 200 | 0 | 18 | 218 |
| Site Preparation | 15 | 0 | 0 | 15 |
| Grading | 377 | 0 | 750 | 1,127 |
| Construction (installation of bridge) | 160 | 0 | 0 | 160 |
| Paving (concrete, gravel work on channel, road crossings) | 880 | 440 | 126 | 1,446 |

### *Construction Equipment*

The main pieces of equipment that could be used are as follows:

- track-mounted excavator
- small crane
- end dump truck
- 10-wheel dump truck
- paving equipment
- flat-bed delivery truck
- concrete truck
- grader
- bulldozer
- backhoe
- compactor
- front-end loader
- water truck
- forklift
- compressor/jack hammer
- boom truck
- mowing equipment (e.g., weedeater, commercial lawnmower)

### *Construction Staging*

Temporary construction staging areas would be established within disturbed or developed portions of the CHP Academy, as depicted on Figure 2-2. Temporary staging would also be required on either side of the proposed storm drain crossing replacement near the entrance to the EVOC. Additional construction staging areas may be required by the contractor. Staging areas would be located outside of sensitive habitats, including aquatic resources.

### *Construction Fencing*

The limits of active construction areas would be fenced for safety and security.

### *Water Usage*

Limited amounts of water would be used for dust control, increasing moisture content in soil used as compacted fill, and fire suppression. During construction, watering would generally occur every 2 to 4 hours using one water truck. Factors such as wind speed, precipitation, temperature, and moisture content of fill material could impact (increase or decrease) the quantity of water required for the Proposed Project.

### *Construction Schedule*

Construction of the Proposed Project is anticipated to last for approximately 9 months, and may begin in 2021 and end in 2021. Within this timeframe, the majority of construction work that involves the use of operating heavy equipment would be performed within an approximately 6-month period. Construction activities would typically be performed Monday through Friday between 7 a.m. and 6 p.m. After-hours work and work on Saturdays, Sundays, and State holidays would be permitted at the discretion of the State of California.

## 2.4.3 Operation and Maintenance

Once constructed, the Proposed Project would not have any operation-related activities, facilities, or equipment. Maintenance would be consistent with existing practices, and would consist of seasonal mowing of upland areas for fire prevention.

# 2.5 Permits and Approvals

Because the Proposed Project is owned by the State of California, local regulations do not apply to the Proposed Project. Local regulations may apply to off-site activities (e.g., connections to existing infrastructure in the public right of way). Local regulations are described by resource topic in **Appendix A**. The permits and regulatory compliance requirements, along with the responsible or permitting agency, are described for the Proposed Project in **Table 2-2.**

**Table 2-2.** Applicable Permit and Regulatory Requirements

| Regulatory Agency | Law/Regulation | Purpose | Permit/ Authorization Type |
|---|---|---|---|
| *Federal Agencies* | | | |
| U.S. Army Corps of Engineers (USACE) | Clean Water Act (CWA) Section 404 | Regulates the discharge of dredged or fill material into waters of the United States, including wetlands | Clean Water Act Section 404 permit |
| U.S. Fish and Wildlife Service (USFWS) | Federal Endangered Species Act (ESA) | USACE must consult with USFWS if threatened or endangered species may be affected by the project | No-take concurrence or ESA Section 7 or 10 consultation, Incidental Take Permit, if required |
| State Historic Preservation Officer | National Historic Preservation Act Section 106 | USACE must consult with State Historic Preservation Officer if historic properties or prehistoric archaeological sites may be affected by the project | To be conducted in conjunction with USACE Section 404 compliance, if required |
| *State Agencies* | | | |
| State Water Resources Control Board | CWA 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 (Region 5) | CWA Section 401 | Regulates the discharge to waters of the state | Water Quality Certification |
| | Porter-Cologne Water Quality Control Act—Waste Discharge Requirements (WDR) | Regulates discharges of materials to land and protection of beneficial uses of waters of the State | WDR |
| California Department of Fish and Wildlife (CDFW) – North Central Region | Lake and Streambed Alteration Agreement (LSAA) | Provides authorization for modifications to the bed and banks of waterways in CDFW jurisdiction | LSAA |
| | California Endangered Species Act | CDFW must be consulted if the project has the potential to result in take of a state-listed species | Incidental Take Permit [if needed] |

# Chapter 3.
# ENVIRONMENTAL CHECKLIST

| | | |
|---|---|---|
| **1.** | **Project Title** | CHP Academy Drainage Channel Improvements Project |
| **2.** | **Lead Agency Name and Address** | California Highway Patrol (CHP)<br>601 N. Seventh Street, Building C<br>Sacramento, California 95811 |
| **3.** | **Contact Person, Phone Number and Email** | Chuck King, Chief<br>chp-drainage-channel-comments@chp-ceqa.com |
| **4.** | **Project Location and Assessor's parcel number (APN)** | The Project is located within the CHP Academy campus (3500 Reed Avenue) in West Sacramento, California. The Project consists of improvements to an existing drainage channel (CH2) and the canine facility. The CHP Academy's APN is 014-600-065. |
| **5.** | **Property Owner(s)** | State of California |
| **6.** | **General Plan Designation** | Public/Quasi Public |
| **7.** | **Zoning** | Public/Quasi Public |
| **8.** | **Description of Project** | See Chapter 2, *Project Description* |
| **9.** | **Surrounding Land Uses and Setting** | The land where the Project will occur is owned and used by the CHP. Part of the land inside the Project's boundary is occupied by the CHP canine facility, while other portions of land within the Project boundary contain Channel CH2 which traverses through land owned by the CHP. Surrounding land uses to the north, east, and west of the Project boundary include other CHP Academy facilities, including a motor course, defensive driving course, parking areas, emergency vehicle operations course, and various buildings. Reed Avenue borders the Project boundary to the south. Businesses, including Mounting Systems, Inc. and Tony's Fine Foods/UNFI Fresh, are located farther south. |
| **10.** | **Other Public Agencies whose Approval or Input May Be Needed** | U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, State Historic Preservation Officer, State Water Resources Control Board, Central Valley Regional Water Quality Control Board (Region 5), California Department of Fish and Wildlife (North Central Region). |

| | |
|---|---|
| **11. Hazards or Hazardous Materials** | The Project is not located on the lists enumerated under § 65952.5 of the Government Code, including, but not limited to, lists of hazardous waste facilities; however, a former leaking underground storage tank (LUST) is located approximately 285 west of the Project site and contributed to soil and groundwater contamination at the Project site. This former LUST site is included on the Cortese list of hazardous materials sites in accordance with Government Code § 65962.5. |
| **12. Native American Consultation** | The United Auburn Indian Community of the Auburn Rancheria, which has a traditional and cultural affiliation to the Project area, has requested consultation pursuant to Public Resources Code Section 21080.3.1 for the Proposed Project. |

This chapter of the Initial Study/Mitigated Negative Declaration (IS/MND) assesses the environmental impacts of the California Highway Patrol (CHP) Academy Drainage Channel Improvements Project (Proposed Project) based on the environmental checklist provided in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The environmental resources and potential environmental impacts of the Proposed Project are described in the individual subsections below. Each section (3.1 through 3.20) provides a brief overview of the regulations and regulatory agencies that address the resource and describes the existing environmental conditions for that resource to help the reader understand the conditions that could be affected by the Proposed Project. Relevant local laws, regulations, and policies are described in Appendix A. In addition, 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.

# Environmental Factors Potentially Affected

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

| | |
|---|---|
| ☐ Aesthetics | ☐ Mineral Resources |
| ☐ Agriculture and Forestry Resources | ☐ Noise |
| ☐ Air Quality | ☐ Population/Housing |
| ☒ Biological Resources | ☐ Public Services |
| ☒ Cultural Resources | ☐ Recreation |
| ☐ Energy | ☐ Transportation/Traffic |
| ☐ Geology/Soils | ☒ Tribal Cultural Resources |
| ☐ Greenhouse Gas Emissions | ☐ Utilities/Service Systems |

☒ Hazards and Hazardous Materials
☐ Hydrology/Water Quality
☐ Land Use/Planning
☐ Wildfire
☐ Mandatory Findings of Significance

## Determination

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

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 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

11/27/19
Date

FOR Name: Chuck King, Chief

California Highway Patrol

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# 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? | ☐ | ☐ | ☒ | ☐ |
| b. Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☒ | ☐ |
| d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area? | ☐ | ☐ | ☐ | ☒ |

## 3.1.1 Regulatory Setting

### *Federal Laws, Regulations, and Policies*

No federal regulations are applicable to aesthetics in relation to the Proposed Project.

### *State Laws, Regulations, and Policies*

In 1963, the California State Legislature established the California Scenic Highway Program, a provision of the Streets and Highways Code, 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.

### 3.1.2 Environmental Setting

The Project site is located west of the Sacramento River and northwest of Interstate 80, within the CHP Academy campus in Yolo County (see Figure 2-1). The Proposed Project consists of improvements to an existing drainage (Channel CH2) that begins in the northern part of the CHP Academy campus near the canine training facility and traverses through the CHP Academy campus, terminating on the southern end of the campus at Channel CH1, directly north of Reed Avenue. The Project site occurs on relatively flat land surrounded by grasses, interspersed trees, and landscaped areas.

Land uses immediately surrounding the Project site include the CHP Academy facilities. Land use further to the north consists of the Sacramento Bypass Wildlife Area. The Sacramento River and industrial developments occur to the east, agricultural fields are to the west, and commercial developments are to the south. The following sections provide further detail on the Project site's existing visual setting and sensitive receptors near the Project site.

#### *Visual Character and Quality of the Site*

The Project site is characterized by the existing drainage, which traverses through vegetated areas containing grasses, shrubs, and trees within the CHP Academy campus. The site's visual character is also influenced by the CHP Academy facilities, including the main access road, motor course, emergency vehicle operations course (EVOC), canine training facility, parking lots, skid pan, administration/visitor building, and dormitories that surround the Project site. Tule Jake Road, which sits atop a levee, borders a vegetated strip of land directly north of the motor course that is located within the CHP Academy campus. On the north side of Tule Jake Road is the Sacramento Bypass Wildlife Area. Mature trees border the CHP Academy campus on the eastern and southern sides; further east are additional CHP Academy facilities, industrial developments, North Harbor Boulevard, the Sacramento River and Interstate 80. Further south are Reed Avenue and commercial buildings, and further west are agricultural lands. The visual quality of the Project site is moderate and characterized by the combination of undeveloped land, CHP Academy campus facilities, a waterbody, agriculture, and surrounding urban development.

#### *Light and Glare*

Nighttime lighting is necessary to provide and maintain safe environments. Light that falls beyond the intended area of illumination is referred to as "light trespass." The most common cause of light trespass is spillover light, which occurs when a lighting source illuminates surfaces beyond the intended area, such as when building security lighting or parking lot lights shine onto neighboring properties. Spillover light can adversely affect light-sensitive uses, such as residences, at night. Both light intensity and fixtures can affect the amount of light spillover. Modern, energy-efficient fixtures that face downward, such as shielded light fixtures, are typically less obtrusive than older, upward-facing light fixtures.

Glare is caused by light reflections from pavement, vehicles, and building materials, such as reflective glass, polished surfaces, or metallic architectural features. During daylight hours, the amount of glare depends on the intensity and direction of sunlight.

The most notable sources of lighting in the Project vicinity are lights on adjacent buildings on the CHP Academy campus. Vehicles traveling on South Harbor Boulevard, Interstate 80, and Reed Avenue are another source of lighting, particularly during nighttime hours.

There are no light sources directly related to the Proposed Project.

### *Scenic Highways and Corridors*

The County of Yolo's Countywide General Plan (County of Yolo 2009) designates five scenic highways within Yolo County. One of these designated scenic highways is near the CHP Academy. The scenic highway begins where North Harbor Boulevard turns into South River Road, directly northeast of the CHP Academy campus at the intersection of Tule Jake Road and North Harbor Boulevard. This scenic highway extends north from Old River Road to the northern terminus of County Road 117 between the communities of Verona and Fremont, just north of the Sacramento International Airport. There are no designated scenic corridors within the vicinity of the Proposed Project.

### *Viewer Sensitivity*

Viewer sensitivity is another consideration in assessing the effects of visual change. Sensitivity is a function of factors such as the visibility of resources in the landscape, proximity of viewers to the visual resource, elevation of viewers relative to the visual resource, frequency and duration of views, number of viewers, and types and expectations of individuals and viewer groups.

Existing views of the Project site were captured from four key observation points (KOPs), as shown on **Figure 3.1-1** (viewpoint map). **Figure 3.1-2** and **Figure 3.1-3** show photos from these KOPs which have been selected as being representative of the types of visual resources that are present in each area.

Views of the Project site and vicinity from each of these KOPs are described as follows:

- **KOP 1**: This KOP shows a view of the proposed spoils area in the northeastern portion of the Project area from the eastern side of the canine training facility, directly north of the main road that circles through the CHP Academy campus. This KOP captures a typical view from a motorist traveling or CHP Academy personnel walking along this road. As shown in the photo, views predominantly include an undeveloped disturbed grassland area with weeds in the foreground, an existing spoils pile, and dense trees in the background. In general, the view from KOP 1 can be characterized as a spoils storage area.

- **KOP 2**: This KOP shows a view of the northern portion of the Project site from near the northwestern corner of the canine training facility. This KOP shows a typical view from the perspective of CHP Academy personnel walking within the CHP Academy campus. Views include an undeveloped disturbed grassland area in the foreground, drainage Channel CH2 with wetland vegetation, and a continuance of the grassland with trees in the background. Beyond the grassland, the CHP Academy defensive driving course, levee, and more trees can be seen. The view from KOP 2 can be characterized as both undeveloped disturbed grassland with trees and as a drainage with interspersed wetland vegetation.

- **KOP 3**: This KOP shows a view looking southwest toward drainage Channel CH2 from atop the drainage crossing as drainage Channel CH2 crosses underneath a paved un-named access road within the CHP Academy campus. This includes a typical view that CHP Academy personnel might see from driving or walking over the drainage crossing to the EVOC. Trees and an unpaved portion of the drainage crossing can be seen in the foreground, and drainage Channel CH2, a portion of a parking area, and undeveloped grassland can also be seen. The view from KOP 3 can be generally characterized as both urban and undeveloped.

- **KOP 4**: This KOP shows a view looking southwest toward drainage Channel CH2 from near the paved access road within the CHP Academy campus. This includes a typical view that CHP Academy personnel might see from entering and leaving the CHP Academy campus. Undeveloped land with non-native grassland vegetation interspersed with trees, along with drainage Channel CH2 are visible in this photo. Beyond the dense trees is Reed Avenue. This view is characterized as undeveloped, non-native grassland with trees.

## *Viewer Groups*

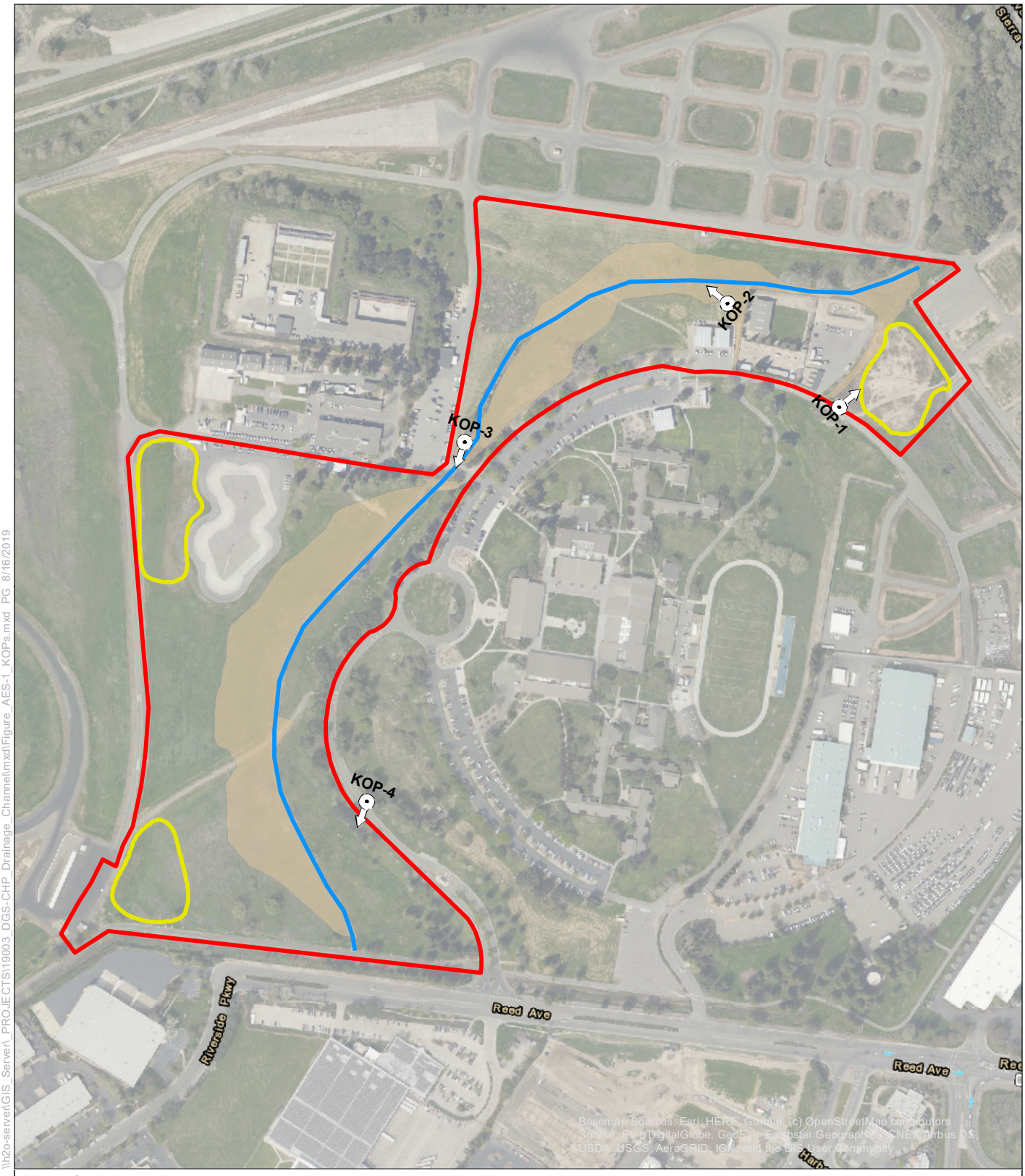
Viewer groups in the vicinity of the Project site and their sensitivity to visual changes are described below. Viewer groups with visual access to the Project site are divided into the categories of CHP Academy personnel, recreationists, and motorists.

### CHP Academy Personnel

As described above, the Project site is situated on the CHP Academy campus and surrounded by CHP Academy facilities. CHP Academy facilities surrounding the Proposed Project site include the main access road, motor course, EVOC, canine facility, parking lots, skid pan, administration/visitor building, and dormitories. CHP Academy personnel utilizing these facilities will have frequent views of the Project site during daytime hours. However, this viewer group is expected to be focused on a rigorous CHP Academy training program and operations related to the training program. As such, this viewer group is not expected to have a high concern for views of the surrounding area during construction of the Proposed Project.

### Recreationists

Recreationists visiting the Sacramento Bypass Wildlife Area located directly north of the CHP Academy have very limited views of the Proposed Project site. Recreationists can access the Sacramento Bypass Wildlife Area from Tule Jake Road; Tule Jake Road is located atop of the levee that is situated between the CHP Academy campus and the wildlife area. KOP 2 shows the levee in the background. Recreationists utilizing Tule Jake Road to access the Sacramento Bypass Wildlife Area would be expected to focus their view on the wildlife area and not into the CHP Academy campus. Due to the CHP Academy's distance from Tule Jake Road and the Sacramento Bypass Wildlife Area, as well as the viewer's interested viewshed facing the opposite way of the Proposed Project site, visual sensitivity of the recreationists would be considered very low.




Prepared for:
California Highway Patrol

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Feet

Project Area
Proposed Spoils Areas
Proposed Grading Limits

KOPs
Channel CH2 Alignment

**Figure 3.1-1**
**Views Surrounding Proposed Project Site**

Prepared by:
Horizon WATER and ENVIRONMENT

**CHP Academy Drainage Channel Improvements Project**
**Initial Study/Mitigated Negative Declaration**

\\h2o-server\GIS_Server_PROJECTS\19003_DGS-CHP_Drainage_Channel\mxd\Figure_AES-1_KOPs.mxd PG 8/16/2019

**KOP 1:** Existing view looking northeast towards the spoils storage area from the side of the CHP Academy access road, near the southeastern corner of the canine facility.

**KOP 2:** Existing view looking northwest towards drainage Channel CH2 from northwest of the canine facility.

Prepared by:

Horizon WATER and ENVIRONMENT

Prepared for:
California Highway Patrol

**Figure 3.1-2.**
**Existing Views from KOPs 1 and 2**

**CHP Academy Drainage Channel Improvements Project**
**Initial Study/Mitigated Negative Declaration**

**KOP 3:** Existing view looking south towards drainage Channel CH2 from the top of where the drainage flows under a CHP Academy access road.

**KOP 4:** Existing view looking southwest towards drainage Channel CH2 near the main access road within the CHP Academy campus.

Prepared by:

Horizon WATER and ENVIRONMENT

Prepared for:
California Highway Patrol

**Figure 3.1-3.**
**Existing Views from KOPs 3 and 4**

**CHP Academy Drainage Channel Improvements Project**
**Initial Study/Mitigated Negative Declaration**

**Motorists**

Motorists traveling along North Harbor Boulevard have very limited views of the Proposed Project site. Views would be fleeting as motorists drive past the CHP Academy campus. A dense screen of trees is situated between the CHP Academy campus and North Harbor Boulevard, making the view into the CHP Academy campus and the Proposed Project site very limited. Motorists traveling along Reed Avenue directly south of where the Project site and drainage Channel CH2 ends, have limited, temporary views of the Project site area due partly to a dense screen of trees. Motorists traveling along Reed Avenue would most likely be CHP Academy personnel or patrons/employees of the commercial businesses located south of Reed Avenue, and would have limited expectations of the surrounding setting. CHP personnel that drive into and around the CHP Academy campus are not expected to have high concern for views within the CHP Academy campus during construction of the Proposed Project. In general, as a viewer group, motorists in this area would have a reduced sensitivity to the surrounding view shed, and their sensitivity would be considered low.

### 3.1.3 Discussion of Checklist Responses

#### a. Adverse effects on scenic vistas—*Less than Significant*

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 scenic vistas have been officially designated for the Project site or vicinity in the West Sacramento General Plan Update Draft Environmental Impact Report (EIR) (2016). The County of Yolo designates five routes as local scenic highways; one of these routes is a designated scenic highway located near the northeastern corner of the CHP Academy campus, at the intersection of Tule Jake Road and North Harbor Boulevard. At this intersection, North Harbor Boulevard becomes South River Road. The designated scenic highway extends from South River Road north to the northern terminus of County Road 117 between the communities of Zamora and Fremont. Motorists traveling on this designated scenic highway will have a very-low- to no-viewshed of the Proposed Project site.

Construction activities associated with the Proposed Project would cause some temporary visual changes at the Project site. A variety of construction equipment, as listed in Section 2.4.2, "Proposed Project Characteristics," would be present during construction. The temporary presence of this equipment and associated construction activities would be somewhat out of character for the area; however, no equipment would be present on the Project site after completion of the construction phase of the Proposed Project. Aboveground physical changes to the viewshed include:

- placement of pavement in order to complete culvert replacements,
- widening of Channel CH2,
- concrete bottom lining of Channel CH2,
- concrete box culvert,
- new steel frame on the existing pedestrian bridge and concrete abutment tied crossing, and
- rip-rap for erosion control.

Figure 2-2 shows a conceptual layout of the Proposed Project. Detailed construction plans can be found in Appendix B. The Proposed Project would not result in a substantial visual change as the Project consists of improvements to an existing drainage, with no new structures being built at the site. Spoils will be stored in an area where spoils are currently stored, and in already disturbed areas not visible to anyone but CHP Academy personnel.

Motorists driving along North Harbor Boulevard, Reed Avenue, and within the CHP Academy campus would have temporary and fleeting views of the construction of the Proposed Project as discussed above. The majority of the views would be screened due to dense trees. As discussed above, CHP Academy personnel and recreationists would not have focused attention on construction of the Proposed Project and would, therefore, not have a high concern regarding construction in the viewshed.

Because construction would be temporary and the site is not located within a scenic vista, construction impacts and aboveground physical changes to the viewshed would be **less than significant**.

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

The Project site is barely visible from the nearest designated highway. The nearest designated highway extends from South River Road (located directly northeast of the CHP Academy campus) to the northern terminus of County Road 117; from this designated highway, the Proposed Project site is only slightly visible for a fleeting moment. The Proposed Project does not contain any scenic resources. No scenic resources within a scenic highway will be damaged as a result of Proposed Project activities; therefore, there would be **no impact**.

### c. Changes to existing visual character or quality of public views in non-urbanized areas or conflict with applicable zoning and other regulations governing scenic quality in urbanized areas—*Less than Significant*

In the immediate vicinity of the Proposed Project, the nature of the site's existing visual character is influenced by a combination of undeveloped land, campus facilities, grassland, and trees. The Proposed Project site itself is represented by an existing drainage with interspersed wetland vegetation, trees, and shrubs.

Construction activities associated with the Proposed Project could result in temporary changes to the visual character of the area due to the presence of construction crews and heavy equipment. However, the duration of construction would be temporary (anticipated to last approximately 9 months) and the scale of changes in views would be limited to CHP Academy personnel, passing motorists, and some recreationists. Therefore, during construction, this impact would be less than significant.

Detailed construction plans showing the Proposed Project channel grading and improvements can be found in Appendix B. Improvements to Channel CH2 would not result in a substantial change to the character of the Project site, as the post-Project condition would be very similar to existing conditions and would be compatible in scale and type with the

surrounding landscape. Therefore, the Project would not result in substantial degradation of the site or the surrounding area's existing visual character or quality in a non-urban area, nor would it conflict with applicable zoning and other regulations governing scenic quality in urbanized areas. This impact would be **less than significant**.

### d. Create new sources of substantial light or glare which would adversely affect day or nighttime views in the area—*No impact*

The Proposed Project consists of improvements to an existing drainage and would not create any new sources of substantial light or glare that would adversely affect day or nighttime views in the area. **No impact** will occur.

# 3.2 AGRICULTURE AND FORESTRY 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 (FMMP) of the California Resources Agency, to nonagricultural use? | ☐ | ☐ | ☐ | ☒ |
| b. Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ☒ |
| 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))? | ☐ | ☐ | ☐ | ☒ |
| d. Result in the loss of forest land or conversion of forest land to non-forest use in a manner that will significantly affect timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, or other public benefits? | ☐ | ☐ | ☐ | ☒ |
| e. Involve other changes in the existing environment that, because of their location or nature, could result in a conversion of Farmland to a nonagricultural use? | ☐ | ☐ | ☐ | ☒ |

## 3.2.1 Regulatory Setting

### *Federal Laws, Regulations, and Policies*

No federal regulations are applicable to agricultural resources in relation to the Proposed Project.

### *State Laws, Regulations, and Policies*

#### Farmland Mapping and Monitoring Program

The Farmland Mapping and Monitoring Program (FMMP), administered by the California Department of Conservation (CDOC), produces maps and statistical data for use in analyzing impacts on California's agricultural resources (CDOC 2019a). FMMP rates and classifies agricultural land according to soil quality, current land use, and other criteria. Important Farmland categories are as follows (CDOC 2019b):

> ***Prime Farmland:*** Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. These lands have the soil quality, growing season, and moisture supply needed to produce sustained high yields. Prime Farmland must have been used for irrigated agricultural production at some time during the 4 years before the FMMP's mapping date.
>
> ***Farmland of Statewide Importance:*** Farmland similar to Prime Farmland, but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Farmland of Statewide Importance must have been used for irrigated agricultural production at some time during the 4 years before the FMMP's mapping date.
>
> ***Unique Farmland:*** Farmland of lesser quality soils used for the production of the state's leading agricultural crops. These lands are usually irrigated but might include non-irrigated orchards or vineyards, as found in some climatic zones. Unique Farmland must have been cropped at some time during the 4 years before the FMMP's mapping date.
>
> ***Farmland of Local Importance:*** Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

#### California Land Conservation Act of 1965 (Williamson Act)

The California Land Conservation Act of 1965 (commonly referred to as the Williamson Act) allows local governments to enter into contracts with private landowners for the purpose of preventing conversion of agricultural land to non-agricultural uses (CDOC 2019c). In exchange for restricting their property to agricultural or related open space use, landowners who enroll in Williamson Act contracts receive property tax assessments that are substantially lower than the market rate.

## 3.2.2 Environmental Setting

The Proposed Project is located on property owned by CHP in the City of West Sacramento. Project improvements to Channel CH2 will occur on land that contains shrubs, trees, and grassy vegetation. The Channel CH2 drainage also crosses through a gravel-paved road and under an asphalt access road and pedestrian bridge. CHP Academy campus facilities are located to the north, east, and west of the Proposed Project area. The site is zoned as "Public/Quasi Public" by the City of West Sacramento—a designation for land uses that provide public services, not agriculture (City of West Sacramento 2016a). Lands in the southern part of the city remain in agricultural production (City of West Sacramento 2016b), and agricultural lands are located north and west of the CHP Academy. Portions of the City of West Sacramento contain Prime Farmland, Farmland of Statewide Importance, Farmland of

Local Importance, and Unique Farmland (CDOC 2015); these areas are located south and southeast of the Proposed Project and are separated from the Project site by development. Directly west of the CHP Academy's property are agricultural lands designated as Unique Farmland (CDOC 2015); and north of the property beyond the strip of land designated as Other Land (the Sacramento Bypass Wildlife Area) is agricultural land designated as Prime Farmland (CDOC 2015). The Project site and surrounding CHP Academy property do not contain any FMMP classified lands. Historical research indicates that the site was used for agriculture until the CHP Academy was established in 1974. No land under Williamson Act contract is located on or near the Project site (County of Yolo 2009).

No forest or timber lands occur on or near the Proposed Project area.

### 3.2.3 Discussion of Checklist Responses

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

As described above, no agricultural or forest resources are present on the Project site. No land within or immediately adjacent to the Project site are classified as Important Farmland by CDOC. Construction and operation of the Proposed Project would not affect agricultural or forest lands in the area. **No impact** would occur.

#### b, c. Conflict with existing zoning for agriculture use, Williamson Act Contract, or forest land or timber land—*No Impact*

The site is zoned for public/quasi-public use and not for agricultural use by the City of West Sacramento. Existing land uses surrounding the Project site are the CHP Academy campus facilities. No agricultural activity is immediately surrounding the Project site and no land on or immediately surrounding the site is enrolled in a Williamson Act contract. There are also no forest or timber lands present in the Project vicinity. Therefore, the Proposed Project would not conflict with existing zoning for agriculture use or forest land, or with Williamson Act contracts. There would be **no impact**.

#### d. Result in the loss of forest land or conversion of forest land to non-forest use—*No Impact*

No forestry resources currently exist in the Project site. Construction and operation of the Proposed Project would not affect forest land. **No impact** would occur.

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# 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? | ☐ | ☐ | ☒ | ☐ |
| b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard? | ☐ | ☐ | ☒ | ☐ |
| c. Expose sensitive receptors to substantial pollutant concentrations? | ☐ | ☐ | ☒ | ☐ |
| d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | ☐ | ☐ | ☒ | ☐ |

## 3.3.1 Regulatory Setting

### *Federal and State Laws, Regulations, and Policies*

The Clean Air Act is implemented by the U.S. Environmental Protection Agency (USEPA) and sets ambient air limits, the National Ambient Air Quality Standards (NAAQS), for six criteria pollutants: particulate matter of aerodynamic radius of 10 micrometers or less ($PM_{10}$), particulate matter of aerodynamic radius of 2.5 micrometers or less ($PM_{2.5}$), carbon monoxide (CO), nitrogen dioxide ($NO_2$), ground-level ozone, and lead. Of these criteria pollutants, particulate matter and ground-level ozone pose the greatest threats to human health. Ground level ozone is caused by emissions of ozone precursor, nitrous oxides (NOx) and reactive organic gases (ROG).

The California Air Resources Board (CARB) sets standards for criteria pollutants in California that are more stringent than the NAAQS and include the following additional contaminants: visibility-reducing particles, hydrogen sulfide, sulfates, and vinyl chloride. The Proposed Project is located within the Sacramento Valley Air Basin, which is comprised of nine air districts and includes Shasta, Tehama, Glenn, Butte, Colusa, Yuba, Sutter, Yolo, Sacramento, and portions of Placer and Solano Counties. The Yolo-Solano Air Quality Management District (YSAQMD) manages air quality within the Yolo and Solano County portions of the Sacramento Valley Air Basin for attainment and permitting purposes.

**Table 3.3-1** shows the current attainment status for the state and federal ambient air quality standards. The area is designated as nonattainment for federal and state ozone ($O_3$) standards, the state particulate matter standard (PM10), and for the federal 24-hour fine particulate matter standard (PM2.5).

**Table 3.3-1.** Attainment Status of the State and Federal Ambient Air Quality Standards

| Contaminant | Averaging Time | Concentration | State Standards Attainment Status[1] | Federal Standards Attainment Status[2] |
|---|---|---|---|---|
| Ozone | 1-hour | 0.09 ppm | N | See footnote 3 |
| | 8-hour | 0.070 ppm | N | N (Moderate) |
| Carbon Monoxide | 1-hour | 20 ppm | A | |
| | | 35 ppm | | A |
| | 8-hour | 9.0 ppm | A | A |
| Nitrogen Dioxide | 1-hour | 0.18 ppm | A | |
| | | 0.100 ppm[5] | | A |
| | Annual arithmetic mean | 0.030 ppm | A | |
| | | 0.053 ppm | | A |
| Sulfur Dioxide ($SO_2$) | 1-hour | 0.25 ppm | A | |
| | | 0.075 ppm | | A |
| | 24-hour | 0.04 ppm | A | |
| | | 0.14 ppm | | A |
| | Annual arithmetic mean | 0.030 ppm | | A |
| Particulate Matter (PM10) | 24-hour | 50 µg/m$^3$ | N | |
| | | 150 µg/m$^3$ | | U |
| | Annual arithmetic mean | 20 µg/m$^3$ | N | |
| Fine Particulate Matter (PM2.5) | 24-hour | 35 µg/m$^3$ | | N |
| | Annual arithmetic mean | 12 µg/m$^3$ | U | A |
| Sulfates | 24-hour | 25 µg/m$^3$ | A | |
| Lead[6] | 30-day average | 1.5 µg/m$^3$ | A | |
| | 3-months rolling | 0.15 µg/m$^3$ | | A |
| Hydrogen Sulfide | 1-hour | 0.03 ppm | U | |
| Vinyl Chloride[6] (chloroethene) | 24-hour | 0.010 ppm | U | |
| Visibility Reducing Particles | 8-hour (10:00 to 18:00 PST) | See footnote 4 | U | |

| | |
|---|---|
| A – attainment | ppm – parts per million |
| N – non-attainment | μg/m$^3$ – micrograms per cubic meter |
| U – unclassified | PST – pacific standard time |

**Notes:**

1. California standards for ozone, carbon monoxide, sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - PM10, and visibility-reducing particles are values that are not to be exceeded. The standards for sulfates, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour, or 24-hour average (i.e., all standards except for lead and the PM10 annual standard), then some measurements may be excluded. In particular, measurements that are excluded include those that the CARB determines would occur less than once per year on average.
2. National standards shown are the "primary standards" designed to protect public health. National air quality standards are set by USEPA at levels determined to be protective of public health with an adequate margin of safety. National standards other than for ozone, particulates, and those based on annual averages are not to be exceeded more than once per year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.075 ppm (75 parts per billion) or less. The 24-hour PM10 standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 μg/m$^3$. The 24-hour PM2.5 standard is attained when the 3-year average of 98th percentiles is less than 35 μg/m$^3$. Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM10 is met if the 3-year average falls below the standard at every site. The annual PM2.5 standard is met by spatially averaging annual averages across officially designated clusters of sites and then determining if the 3-year average of these annual averages falls below the standard.
3. The national 1-hour ozone standard was revoked by USEPA on June 15, 2005. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 ppm to 0.070 ppm. An area meets the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or less than 0.070 ppm. This table provides the attainment statuses for the 2015 standard of 0.070 ppm.
4. Statewide Visibility-Reducing Particle Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per km when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment resulting from regional haze and is equivalent to a 10-mile nominal visual range.
5. To attain this standard, the 3-year average of the ninety-eighth percentile of the daily maximum 1-hour average at each monitoring station within an area must not exceed 0.100 ppm (effective January 22, 2010).
6. CARB has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure below which there are no adverse health effects determined.

*Sources: CARB 2019, USEPA 2019, YSAQMD 2019*

USEPA and 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 to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- ATCM to Reduce Particulate Emissions from Diesel-Fueled Engines - Standards for Non-vehicular Diesel Fuel

## *Local Laws, Regulations, and Policies*

Local laws, regulations, and policies are provided in **Appendix A**. The analysis below references YSAQMD rules, regulations, and plans.

## *Significance Thresholds and Methodology*

The YSAQMD has established guidelines for determining significance for air quality analyses (YSAQMD 2007) which are shown in **Table 3.3-2**. Projects below these mass emission thresholds do not have a significant impact on air quality. Any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative impact.

**Table 3.3-2**. Air Quality Significance Thresholds for Project Construction and Operations

| Pollutant | Construction / Operation |
|---|---|
| ROG | 10 tons/year |
| $NO_X$ | 10 tons/year |
| $PM_{10}$ | 80 lbs/day |
| CO | Violation of a state ambient air quality standard for CO |
| Odor | Generation of odorous emissions in such quantities as to cause detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which may endanger the comfort, repose, health, or safety of any such person or the public, or which may cause, or have a natural tendency to cause, injury or damage to business or property. |
| TACs (Stationary Sources Only) | Probability of contracting cancer for the Maximally Exposed Individual (MEI) equals to 10 in one million or more.<br>Ground-level concentrations of non-carcinogenic toxic air contaminants would result in a Hazard Index equal to 1 for the MEI or greater. |

NOx = oxides of nitrogen, ROG = reactive organic gases, PM10 = particulate matter of aerodynamic radius of 10 micrometers or less, CO = carbon monoxide

*Source: YSAQMD 2007.*

## 3.3.2 Environmental Setting

The Proposed Project is located in the City of West Sacramento in the Sacramento Valley Air Basin and Yolo County. The site is located west of Interstate 80 at an elevation of approximately 15 feet above mean sea level (msl) in the relatively level Sacramento Valley. The weather in West Sacramento near the Project site consists of hot, dry summers and mild winters. Approximately 17 inches of rainfall occur in the West Sacramento area annually (Western Regional Climate Center 2019).

Within Yolo County, the Sacramento Valley Air Basin, is designated as a federal and state non-attainment area for ozone, a federal non-attainment area for $PM_{2.5}$, and a state non-attainment area for $PM_{10}$. The Sacramento Valley Air Basin within Yolo County is in attainment or unclassified for all other federal and state criteria air pollutants, as shown in Table 3.3-1.

As detailed in Section 3.9, "Hazards and Hazardous Materials," hazardous chemicals may be present in the soil and groundwater at the Project site due to a former leaking underground storage tank (LUST) located west of Channel CH2.

The Project site is surrounded by CHP facilities that include offices and a dormitory located between 300 feet and 1,000 feet from the closest edge of the proposed grading activities. The nearest external sensitive receptor to the Project site is a residence located across the Sacramento River on Garden Highway, approximately 1,475 feet to the northeast. The Christ Holy Sanctified Church is roughly 4,000 feet to the east of the Project site. No other sensitive receptors are located near the Project site.

## 3.3.3 Discussion of Checklist Responses

### a. Conflict with or obstruct implementation of the applicable air quality plan—*Less than Significant*

A project is deemed inconsistent with air quality 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 be evaluated to determine whether they would generate population and employment growth and, if so, whether that growth would exceed the growth rates included in the relevant air quality plans. The Proposed Project involves improvements to a drainage channel and would not result in population or employment growth and is, therefore, consistent with the air quality plan.

The Proposed Project would follow all federal, state, and local regulations related to stationary and area sources of air pollutants. In addition, construction will follow local air district (YSAQMD) rules and regulations. Therefore, because the Proposed Project would be consistent with the applicable general plan policies and would comply with all applicable regulations for sources of air pollutants, the Proposed Project would have a **less than significant impact** and would not obstruct or conflict with applicable air quality plans.

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

During construction of the Proposed Project, the combustion of fossil fuels for operation of fossil-fueled construction equipment, material hauling, and worker trips would result in construction-related criteria air pollutant emissions as well as fugitive dust from construction activities. These emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 and information from the Project description, along with default assumptions for a 4.36-acre site, which is the area that would be graded. Demolition debris was assumed to be 180 tons of debris and excavated material. Of 20,000 cy of material moved during grading, 14,000 cy would remain on site and 6,000 cy would be hauled off site.

The Proposed Project's construction-related criteria air pollutant emissions estimates are shown in **Table 3.3-3**. CalEEMod modeling results for the Proposed Project are provided in **Appendix C, Air Quality, Energy, and Greenhouse Gases Analysis**.

**Table 3.3-3**. Peak Daily and Annual Criteria Pollutant Emissions during Construction

| | Pollutant | | |
|---|---|---|---|
| | ROG (tons/year) | $NO_X$ (tons/year) | $PM_{10}$ (lb/day) |
| **Construction Emissions** | **0.087** | 0.930 | 72.9 |
| **Threshold*** | 10 | 10 | 80 |
| **Above Threshold?** | **No** | No | No |

The estimated mass emissions from the Proposed Project's activities are lower than the mass emission screening level significance thresholds; therefore, the Project would not contribute substantially to an existing air quality violation for criteria pollutants and the impact would be considered less than significant**.** Additionally, the YSAQMD has set its criteria pollutant significance thresholds such that emissions below these thresholds would not considerably contribute to a cumulative impact and would be considered less than significant. Thus, the Proposed Project would not have a considerable contribution to cumulative impacts since its emissions would be less than the YSAQMD's significance thresholds. This impact would be **less than significant**.

### c. Expose sensitive receptors to substantial pollutant concentrations — *Less than Significant*

During Project construction, diesel particulate matter (DPM) and gasoline fuel combustion emissions that are classified as TACs could be emitted from construction equipment. However, these emissions would not be anticipated to generate substantial pollutant concentrations or expose sensitive receptors to these concentrations because there are few sensitive receptors located near the Project site (see Section 3.3.2) and the construction period for the Proposed Project is short in duration (9 months). The nearest sensitive receptors to the Project site include (1) CHP offices and dorms (approximately 300 to

1,000 feet from the edge of the site), (2) a residence (approximately 1,475 feet from the edge of the site), and (3) a church (approximately 4,000 feet from the site).

Due to the variable nature of construction activity, the generation of 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. Chronic and cancer-related health effects estimated over short periods are uncertain. Cancer potency factors are based on animal lifetime studies or worker studies with long-term exposure to the carcinogenic agent. There is considerable uncertainty in trying to evaluate the cancer risk from exposure that would last only a small fraction of a lifetime. Some studies indicate that the dose rate may change the potency of a given dose of a carcinogenic chemical. In other words, a dose delivered over a short period may have a different potency than the same dose delivered over a lifetime (California Office of Environmental Health Hazard Assessment [OEHHA] 2015). Furthermore, construction impacts are most severe adjacent to the construction area and decrease rapidly with increasing distance. Concentrations of mobile-source DPM emissions are typically reduced by 70 percent at a distance of approximately 500 feet (CARB 2005).

Given the short duration of construction, the fact that TAC concentrations would be quickly reduced away from the active construction site, the substantial distances between the Project site and identified 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 (such as those leading to odors) adversely affecting a substantial number of people—*Less than Significant*

Diesel exhaust from grading and construction activities may generate temporary odors while the Proposed Project is underway. Once activities are completed these odors would cease. The Proposed Project would involve removing culverts, pavement, and potentially 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 excavation and spoils areas and the amount and quality of the exposed material. Demolition and grading work would be temporary and, as mentioned in Discussion of Checklist Responses 'c', and Section 3.3.2 above, the nearest sensitive receptor would be approximately 1,475 feet and across the river from the edge of the existing site. Impacts related to potential generation of objectionable odors are thus expected to be temporary, would not affect a substantial number of people, and would be **less than significant**.

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# 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)? | ☐ | ☒ | ☐ | ☐ |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS? | ☐ | ☒ | ☐ | ☐ |
| 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? | ☐ | ☒ | ☐ | ☐ |
| 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? | ☐ | ☒ | ☐ | ☐ |
| e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☐ | ☒ |
| f. Conflict with the provisions of an adopted habitat conservation plan (HCP); natural community conservation plan; or other approved local, regional, or state HCP? | ☐ | ☐ | ☐ | ☒ |

## 3.4.1 Regulatory Setting

### *Federal Laws, Regulations, and Policies*

#### Endangered Species Act

The Endangered Species Act (ESA) (16 U.S. Code [USC] § 1531 et seq.; 50 Code of Federal Regulations [CFR] Parts 17 and 222) provides for conservation of species that are endangered or threatened throughout all or a substantial portion of their range, as well as protection of the habitats on which they depend. The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) share responsibility for implementing the ESA. In general, USFWS manages terrestrial and freshwater species, whereas NMFS manages marine and anadromous species.

Section 9 of the ESA and its implementing regulations prohibit the "take" of any fish or wildlife species listed under the ESA as endangered or threatened, unless otherwise authorized by federal regulations. The ESA defines the term "take" to mean "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (16 USC § 1532). Section 7 of the ESA (16 USC § 1531 et seq.) outlines the procedures for federal interagency cooperation to conserve federally listed species and designated critical habitats. Section 10(a)(1)(B) of the ESA provides a process by which nonfederal entities may obtain an incidental take permit from USFWS or NMFS for otherwise lawful activities that incidentally may result in "take" of endangered or threatened species, subject to specific conditions. A habitat conservation plan (HCP) must accompany an application for an incidental take permit.

#### Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC, Chapter 7, Subchapter II) states that it is unlawful to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, any migratory bird, any part, nest, or egg of any such bird. According to a 2017 U.S. Department of Interior memorandum (U.S. DOI 2017), the MBTA's prohibitions apply only to direct and affirmative *purposeful* actions that result in take; the MBTA does not prohibit incidental take. USFWS is responsible for overseeing compliance with the MBTA.

#### Clean Water Act

The Clean Water Act (CWA) is the primary federal law that protects the quality of the nation's surface waters, including lakes, rivers, and wetlands.

Section 404 of the CWA regulates the discharge of dredged and fill materials into waters of the U.S., which include all navigable waters, their tributaries, and some isolated waters, as well as some wetlands adjacent to the aforementioned waters (33 CFR Section 328.3). Areas typically not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial waterbodies such as swimming pools, vernal pools, and water-filled depressions (33 CFR Part 328). Areas meeting the regulatory definition of waters of the U.S. are subject to the jurisdiction of U.S. Army Corps of Engineers (USACE) under the provisions of CWA Section 404. Activities involving placement of fill into jurisdictional waters of the U.S. are regulated by USACE through permit requirements. No

USACE permit is effective in the absence of state water quality certification pursuant to Section 401 of CWA.

Section 401 of the CWA requires an evaluation of water quality when a proposed activity requiring a federal license or permit could result in a discharge to waters of the U.S. In California, the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs) issue water quality certifications. Each RWQCB is responsible for implementing Section 401 in compliance with the CWA and its water quality control plan (also known as a Basin Plan). Applicants for a federal license or permit to conduct activities that may result in the discharge to waters of the U.S. (including wetlands or vernal pools) must also obtain a Section 401 water quality certification to ensure that any such discharge will comply with the applicable provisions of the CWA.

Section 402 of the CWA regulates stormwater discharges to surface waters through the National Pollutant Discharge Elimination System (NPDES). In California, the NPDES is administered by the SWRCB. The NPDES program provides for both general permits (those that cover a number of similar or related activities) and individual (activity- or project-specific) permits.

## *State Laws, Regulations, and Policies*

### California Fish and Game Code

The California Fish and Game Code includes various statutes that protect biological resources, including the Native Plant Protection Act of 1977 (NPPA) and the California Endangered Species Act (CESA) (California Fish and Game Code §§ 2050–2098). The NPPA (California Fish and Game Code §§ 1900-1913) authorizes the Fish and Game Commission to designate plants as endangered or rare and prohibits take of any such plants, except as authorized in limited circumstances.

CESA prohibits state agencies from approving a project that would jeopardize the continued existence of a species listed under CESA as endangered or threatened. Section 2080 of the California Fish and Game Code prohibits the take of any species that is state listed as endangered, threatened, or designated as a candidate for such listing. California Department of Fish and Wildlife (CDFW) may issue an incidental take permit authorizing the take of listed and candidate species if that take is incidental to an otherwise lawful activity, subject to specified conditions.

California Fish and Game Code §§ 3503, and 3513 protect native and migratory birds, including their active or inactive nests and eggs, from all forms of take. In addition, § 3511, § 4700, § 5050, and § 5515 identify species that are fully protected from all forms of take. Section 3511 lists fully protected birds, § 5515 lists fully protected fish, § 4700 lists fully protected mammals, and § 5050 lists fully protected amphibians.

### Porter-Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (known as the Porter–Cologne Act), passed in 1969, dovetails with CWA (see discussion of the CWA above). It established SWRCB and divided the state into nine regions, each overseen by a RWQCB. SWRCB is the primary State agency responsible for protecting the quality of the state's surface water and groundwater supplies; however, much of the SWRCB's daily implementation authority is delegated to the

nine RWQCBs, which are responsible for implementing CWA Section 401, 402, and 303[d]. In general, SWRCB manages water rights and regulates statewide water quality, whereas RWQCBs focus on water quality within their respective regions.

The Porter–Cologne Act requires RWQCBs to develop water quality control plans (also known as basin plans) that designate beneficial uses of California's major surface-water bodies and groundwater basins and establish specific narrative and numerical water quality objectives for those waters. Beneficial uses represent the services and qualities of a waterbody (i.e., the reasons that the waterbody is considered valuable). Water quality objectives reflect the standards necessary to protect and support those beneficial uses. Basin plan standards are primarily implemented by regulating waste discharges so that water quality objectives are met.

## 3.4.2 Environmental Setting

The Project site consists of managed and natural habitats that include freshwater wetland, California grassland, riparian woodland, and ruderal/developed areas. Areas immediately surrounding the Project site are developed and contain CHP Academy facilities. Habitat types within the Project site are described in detail below.

The Sacramento Bypass Wildlife Area is located approximately 650 feet north of the Project site. This area provides refuge and foraging habitat for wildlife, and is considered an important wildlife movement corridor in this portion of Yolo County. The Sacramento Bypass Wildlife Area is bounded by a series of levees including the Sacramento Bypass Levee that extends along the left bank from the Sacramento Weir towards its confluence with the Yolo Bypass left bank levee. The Sacramento Weir diverts flows from the Sacramento River into the Sacramento Bypass and Yolo Bypass Wildlife Area. The Sacramento Bypass Levee, a strip of vegetated land, and a CHP Academy access road separate the Sacramento Bypass Wildlife Area from the CHP Academy.

The Sacramento River bounds the CHP Academy to the northeast, and is located approximately 875 feet northeast of the Project site.

The Project site includes a man-made earthen drainage channel (Channel CH2) that runs along the west side of the main CHP Academy campus buildings, and flows from north to south. CHP's canine training facility is located adjacent to the upstream end of Channel CH2 and is situated in a flat, low-lying area.

### *Aquatic Habitats*

#### Cattail Marsh

Portions of Channel CH2 support cattail (*Typha* sp.) marsh vegetation. This vegetation type is dominated by cattails, with other hydrophytic vegetation present. Cattail marsh vegetation is found in semi-permanently flooded conditions (Sawyer et al. 2009).

#### Hardstem Bulrush Marsh

Sections of the drainage channel also support areas dominated by hardstem bulrush (*Schoenoplectus acutus*). Hydrologic characteristics of the basins supporting this vegetation type area described under Cattail Marsh above.

### Great Valley Mixed Riparian Forest

The upstream section of Channel CH2 supports an area dominated by Great Valley mixed riparian forest vegetation. This vegetation type is dominated by valley oak (*Quercus lobata*) and Fremont cottonwood (*Populus fremontii*), with understory species that include non-native Himalayan blackberry (*Rubus armeniacus*).

## *Terrestrial Habitats*

### California Annual Grassland

California annual grassland is the most abundant natural community within the Project area. Dominant species include slender oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), soft chess brome (*Bromus hordeaceus*), and Italian ryegrass (*Festuca perennis*). This community is predominantly located west of Channel CH2. Other species including common velvetgrass (*Holcus lanatus*), seaside barley (*Hordeum marinum*), and wall barley (*Hordeum murinum*) are present in patches throughout the Project area.

### Developed

Developed land cover in the Project area includes roadways and anthropogenic features such as buildings, parking lots, stormwater culverts, and drainage channels. Vegetation in these areas, if present at all, is typically sparse, dominated by weedy herbaceous species similar to those described under Ruderal below. Developed land cover includes various CHP Academy facilities and buildings to the north, east, and west of the Project site.

### Landscaped

Landscaped areas in the Project area are characterized primarily by planted and ornamental vegetation. In the Project area, the majority of the landscaped areas are located adjacent to pedestrian walkways and parking lots.

### Bare Ground

Bare ground consists of areas lacking vegetation due to frequent or recent disturbance that has prevented the growth and development of vegetation. In the Project area, the majority of the bare ground areas are located east and west of the canine training facility due to activities unrelated to the Project.

### Ruderal

Ruderal vegetation is characterized by non-native forbs, such as bristly ox-tongue (*Helminthotheca echioides*), bullthistle (*Cirsium vulgare*), black mustard (*Brassica nigra*), and grasses that occur in disturbed areas typically along the edges of development or areas with anthropogenic impacts. In the Project area, ruderal vegetation is found along the parking lot north of the CHP Academy. Areas of ruderal vegetation adjacent to the upper limit of the drainage channel also support Himalayan blackberry. Dense stands of invasive giant reed (*Arundo donax*) occur east of the Channel CH2 middle reach, near the northern section of the CHP Academy parking lot.

## *Special-Status Species*

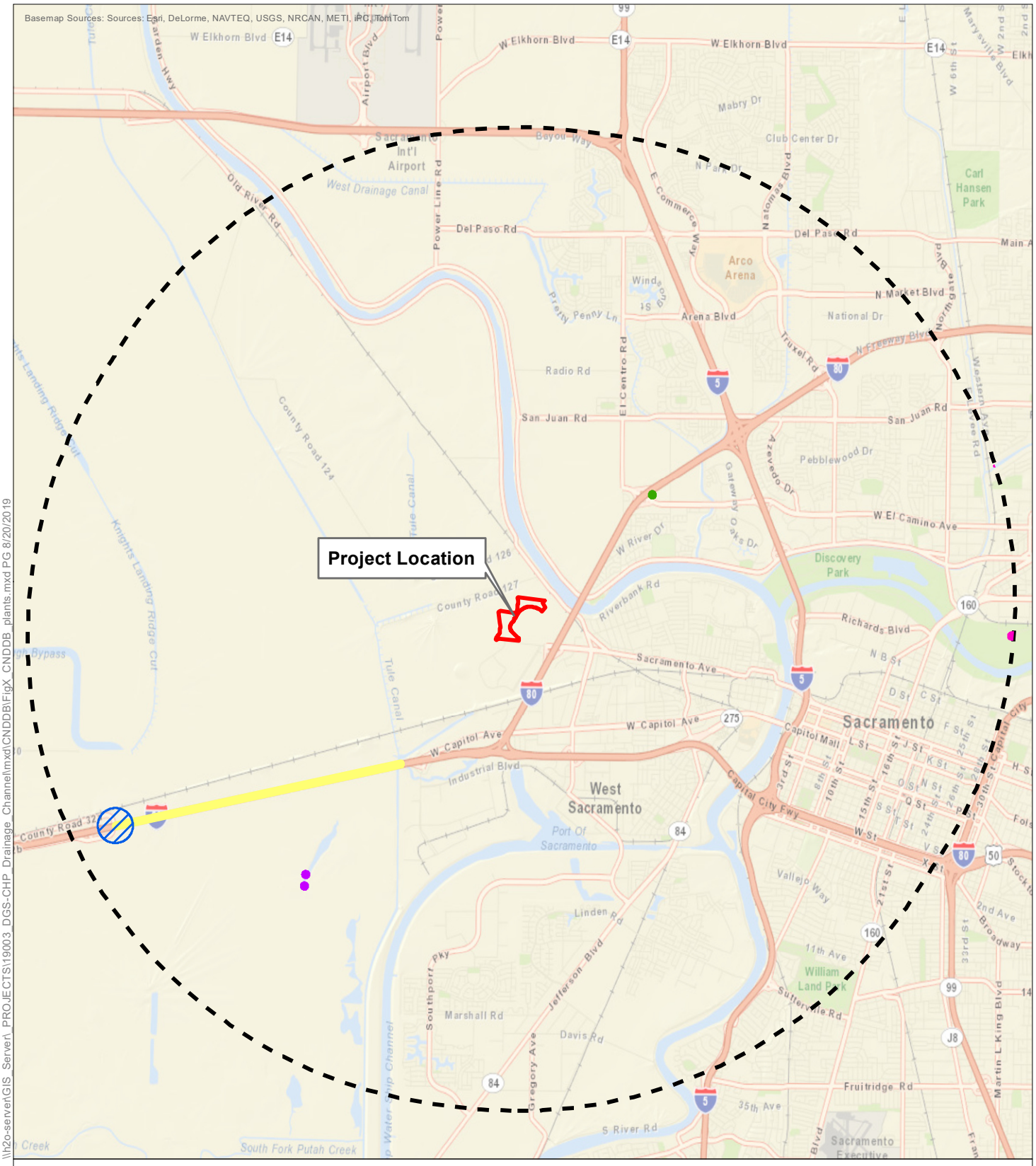
For the purposes of this assessment, special-status species are those that are listed as rare, species of concern, candidate, threatened, or endangered by USFWS or the CDFW. Special-

status plant and animal species with the potential to occur in the Project site were identified through a review of the following resources:

- USFWS Information for Planning and Consultation Report (USWFS 2019, Appendix D)
- California Natural Diversity Database (CNDDB) queries for the nine U.S. Geological Survey (USGS) 7.5-minute quadrangles containing and surrounding the project sites: Sacramento West, Sacramento East, Grays Bend, Taylor Monument, Rio Linda, Davis, Saxon, Clarksburg, and Florin (CDFW 2019, Appendix D)
- California Native Plant Society's (CNPS's) Inventory of Rare and Endangered Plants of California query for the nine USGS 7.5-minute quadrangles containing and surrounding the project sites (CNPS 2019, Appendix D)

No USFWS-designated critical habitat is located within the Project site. A list of special-status species and their potential to occur within the existing site is provided in **Appendix D, Biological Resources Background Information, Table D-1**. **Figure 3.4-1** and **Figure 3.4-2** also provide locations of these species that occur within a 5-mile-radius of the existing site. **Figure 3.4-3** shows the location of critical habitat within 5 miles of the Project site. The potential for special-status species to occur in areas affected by the Project was evaluated according to the following criteria:

- **None:** indicates that the area contains a complete lack of suitable habitat, the local range for the species is restricted, and/or the species is extirpated in this region.
- **Not Expected:** indicates situations where suitable habitat or key habitat elements may be present but may be of poor quality or isolated from the nearest extant occurrences. Habitat suitability refers to factors such as elevation, soil chemistry and type, vegetation communities, microhabitats, and degraded/substantially altered habitats.
- **Possible:** indicates the presence of suitable habitat or key habitat elements that potentially support the species.
- **Present:** indicates that either the target species was observed directly or its presence was confirmed by diagnostic signs during field investigations or in previous studies in the area.




Data Source: ESRI 2019, CNDDB June 2019 update

N

0 0.5 1
Miles

Project Area
5-mile buffer

Ferris' milk-vetch
Sanford's arrowhead
Suisun Marsh aster

pappose tarplant
woolly rose-mallow

**Figure 3.4-1 CNDDB Occurrences of Special-Status Plants within 5 miles of the Proposed Project**

Horizon WATER and ENVIRONMENT

CHP Academy Drainage Channel Improvements Project

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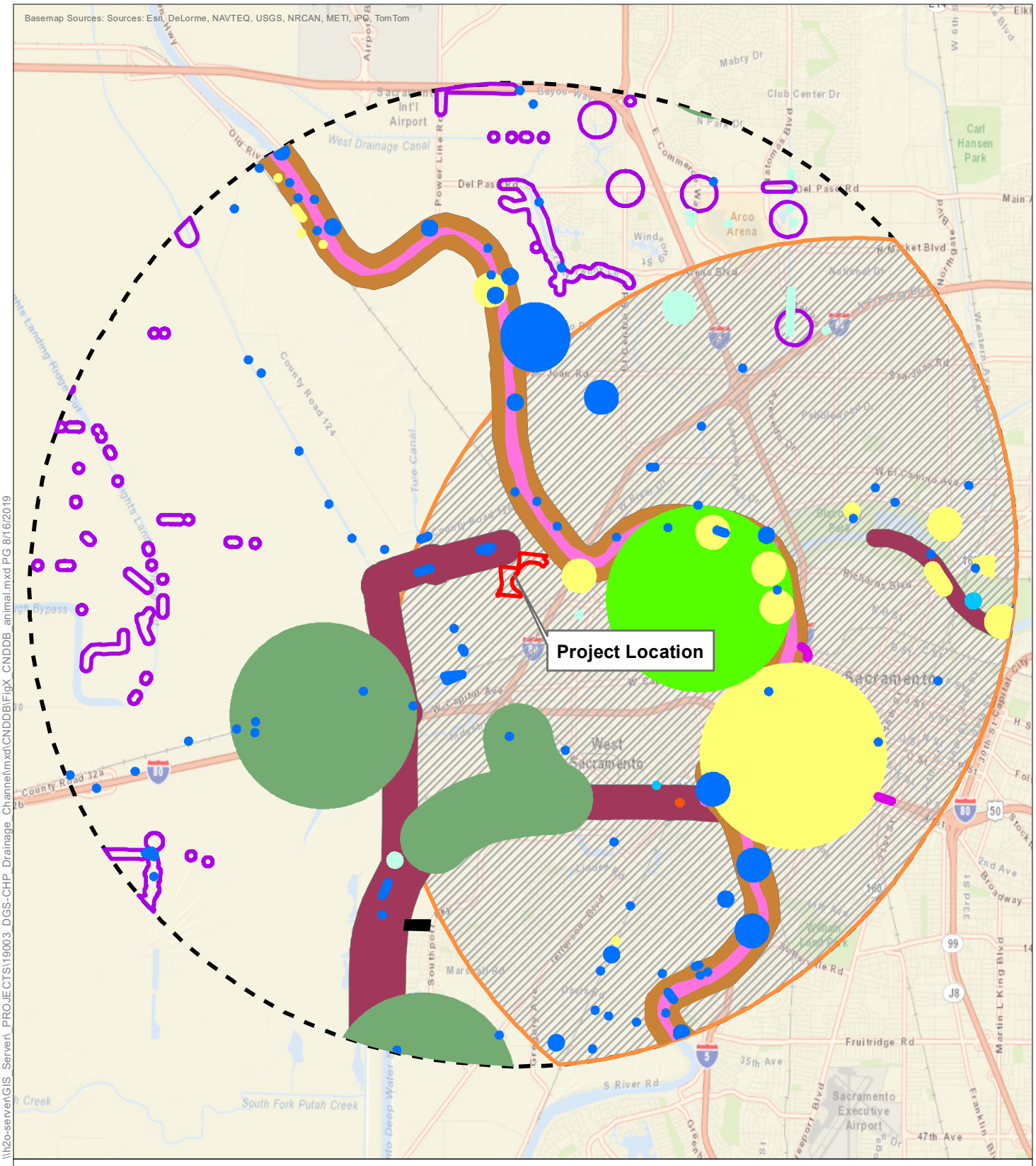


Data Source: ESRI 2019, CNDDB June 2019 update

N

0 0.5 1
Miles

Project Area
5-mile buffer

California black rail
Sacramento splittail
Swainson's hawk
burrowing owl
chinook salmon - Central Valley spring-run ESU
chinook salmon - Sacramento River winter-run ESU
giant garter snake
least Bell's vireo
longfin smelt
purple martin
song sparrow ("Modesto" population)
steelhead - Central Valley DPS
tricolored blackbird
valley elderberry longhorn beetle
western yellow-billed cuckoo
white-tailed kite

Horizon WATER and ENVIRONMENT

**Figure 3.4-2**
**CNDDB Occurrences of Special-Status Animals within 5 miles of the Proposed Project**

CHP Academy Drainage Channel Improvements Project

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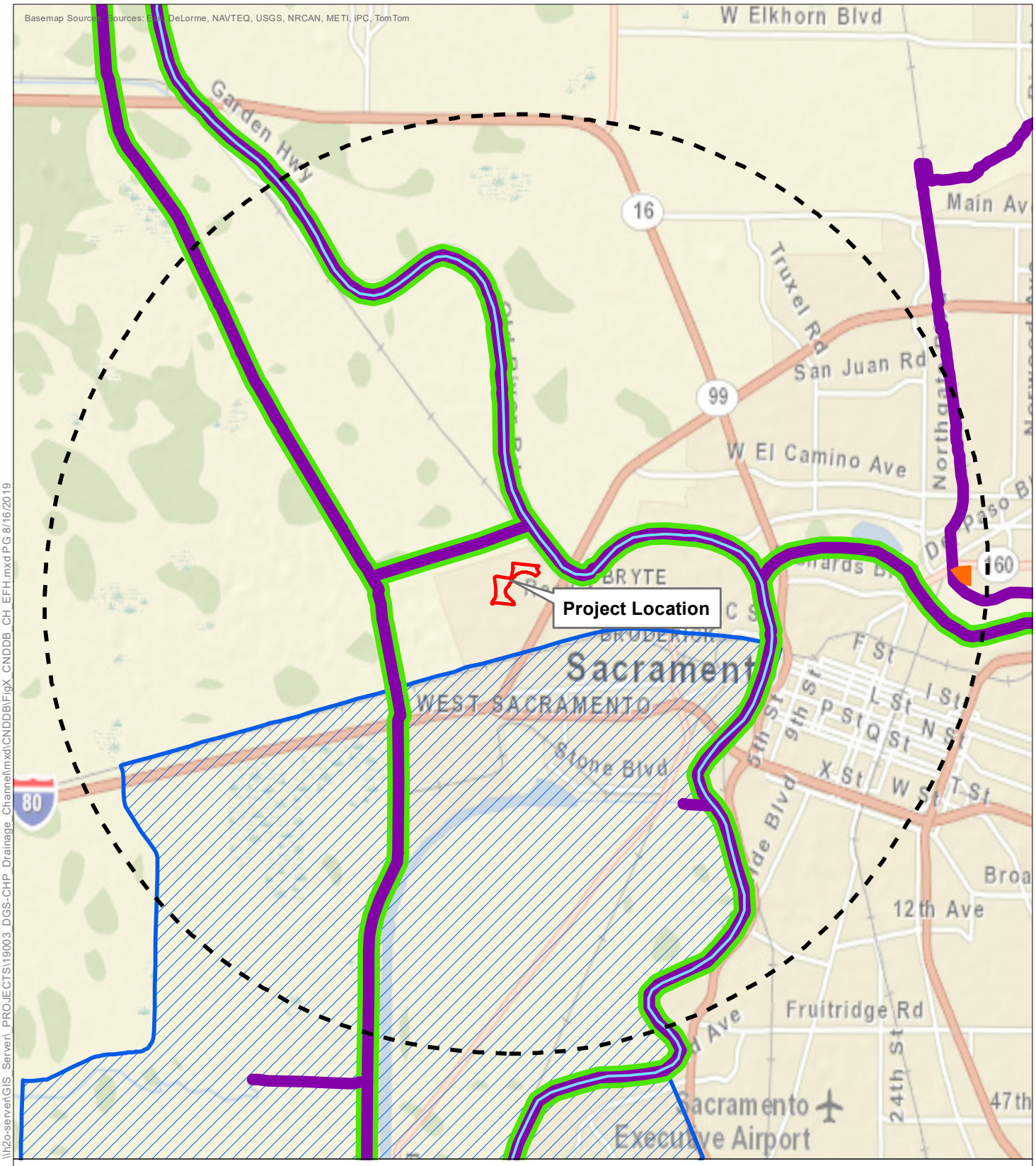


Data Source: ESRI 2019, CNDDB June 2019 update

N

0 0.5 1
Miles

Project Area
5-mile buffer

Chinook salmon - Sacramento River-run ESU
valley elderberry longhorn beetle
steelhead - Central California Valley DPS
Chinook salmon - Central Valley spring-run ESU
delta smelt

**Figure 3.4-3**
**Critical Habitat**

Horizon WATER and ENVIRONMENT

CHP Academy Drainage
Channel Improvements Project

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### 3.4.3 Discussion of Checklist Responses

#### 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*

##### *Plants*

Based on searches of the CNDDB, USFWS Information for Planning and Consultation Report, and the CNPS Inventory of Rare and Endangered Plants, five sensitive plant species were identified as historically occurring within 5 miles of the Project site or have potential to occur in the Project site vicinity (CDFW 2019, USFWS 2019, CNPS 2019). Of these, marginal habitat exists within the Project site for three plant species. These species are not expected to occur due to the lack of suitable habitat in the Project site (e.g., alkaline flats, vernal pools, or chenopod scrub) (see Appendix D, Table D-1). Additionally, Channel CH2 is dominated by areas of emergent wetland plant species and the surrounding landscape is largely developed. Some areas are dominated by ruderal habitat and other areas are consistently maintained during landscape maintenance activities performed by CHP. Thus, special-status plant species are not likely to be affected by Proposed Project activities and no impact would occur.

No special-status plant species were observed at the Project site during a reconnaissance survey conducted in March 2019 (Horizon 2019).

##### *Invertebrates*

Four special-status invertebrate species have the potential to occur in the vicinity of the Project site (listed in Appendix D), of which only one species, valley elderberry longhorn beetle (VELB) (*Desmocerus californicus dimorphus*), has the potential to occur near the Project site.

VELB is associated exclusively with its host plant, elderberry (*Sambucus* spp.). Adult beetles of this subspecies feed and lay eggs on the elderberry shrubs in riparian communities of the Central Valley. The larvae remain within the elderberry stems until they emerge through exit holes as adults.

A single elderberry shrub is present in the vicinity of the Project site, just southeast of the canine training facility; therefore, VELB are potentially present. The elderberry shrub is located approximately 140 feet outside of the Project site in a disturbed area. Impacts on VELB and individual elderberry shrubs may result from the removal of, or damage to, elderberry plants, or generation of excessive dust. Impacts that result in direct mortality to VELB or substantial degradation of their habitat are considered potentially significant. **Mitigation Measure BIO-1 (Implement Measures to Avoid Impacts on Valley Elderberry Longhorn Beetle)** would avoid impacts on the host plant for this species. As a result, impacts on VELB would be **less than significant with mitigation.**

> **Mitigation Measure BIO-1: Implement Measures to Avoid Impacts on Valley Elderberry Longhorn Beetle.**
>
> Before ground disturbance within 100 feet of any elderberry shrubs, a qualified biologist will identify any shrubs in the Project site that may have potential to support

VELB. DGS or its contractor will establish a 20-foot buffer around shrubs and the Project footprint by installing temporary orange construction fencing (4-foot-high commercial-quality polypropylene). Within buffer areas, signs would be posted along fencing for the duration of construction. The signs would contain the following text:

> *"This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Federal Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment."*

Dust emissions from construction equipment within 100 feet of an elderberry shrub shall be suppressed by the use of water. DGS would ensure that the Project site is watered down as necessary to prevent fugitive dust from becoming airborne and accumulating on the elderberry shrub.

### *Amphibians and Reptiles*

Four special-status amphibian and reptile species are known to occur in the vicinity of the Project site (see Appendix D). Of these species, only western pond turtle (WPT) (*Actinemys marmorata*) has some potential to occur in the Project site.

The WPT is a highly aquatic turtle that spends much of its time in freshwater. It moves to adjacent upland habitat with sparse vegetation to bask and lay eggs. The Sacramento Bypass Wildlife Area and freshwater canals that bound the CHP Academy property provide suitable aquatic habitat for WTP. The adjacent grasslands in the Project site could provide suitable nesting habitat; however, the Project site generally lacks suitable aquatic habitat because of the absence of basking sites and lack of perennially inundation. No CNDDB occurrence records for WPT exist within a 5-mile radius of the Project site.

The Project would result in temporary and permanent impacts to adjacent upland habitat for WPT. Ground-disturbing activities involving the installation of ditches, erosion control, concrete V-gutters, trench drain, and the removal of on-site vegetation and trees would impact upland habitat for WTP. Additionally, in the unlikely event that WTP is present in the Project site during construction activities, this species could potentially be injured or killed. Implementation of **Mitigation Measure BIO-2 (Conduct Preconstruction Surveys, Establish Buffers around Nests, and Implement Measures to Avoid or Minimize Impacts on WPT)** would require that surveys be conducted and measures be implemented to avoid impacts on WPT to the extent feasible. As a result, impacts on WPT would be **less than significant with mitigation**.

**Mitigation Measure BIO-2: Conduct Preconstruction Surveys, Establish Buffers around Nests, and Implement Measures to Avoid or Minimize Impacts on Western Pond Turtle.**

Preconstruction surveys for WPT shall be conducted by a qualified biologist within 24 hours before the start of construction activities where suitable habitat exists (i.e., riparian areas, freshwater emergent wetlands, and adjacent uplands).

WPTs found within the construction area will be allowed to leave on their own volition or will be relocated by the qualified biologist out of harm's way to suitable habitat immediately upstream or downstream of the Project site. To be qualified to

move turtles, the biologist shall possess a valid memorandum of understanding from CDFW authorizing the capture and relocation of turtles.

If a WPT nest is identified in the work area during preconstruction surveys or during construction, a 50-foot no-disturbance buffer shall be established between the nest and any areas of potential disturbance. Buffers will be clearly marked with temporary fencing. Construction will not be allowed to commence in the exclusion area until hatchlings have emerged from the nest or the nest is deemed inactive by a qualified biologist.

### *Fish*

No suitable habitat for special-status fish (see Appendix D) was identified within the Project site. Levees situated between Channel CH2 and the Sacramento River do not allow for fish movement between the two water bodies. **No impacts** to special-status fish would occur.

### *Birds*

Of the 21 special-status bird species with potential to occur in the Project area (listed in Appendix D), suitable habitat exists within the Project site for two species: Swainson's hawk (*Buteo swainsoni*), and white-tailed kite (*Elanus leucurus*). The remainder of the species listed in Table D-1 in Appendix D are not expected, or don't have potential, to occur within the Project site due to a lack of suitable foraging and nesting habitat.

Riparian habitat along the margins of the CHP Academy facility and mature trees within the Project site provide potentially suitable nesting habitat for Swainson's hawk and white-tailed kite. There are known occurrences of Swainson's hawk nests around the perimeter of the Project site. The closest known nest location is approximately 1,200 feet northwest of the Project site (CDFW 2019) in the Sacramento Bypass Wildlife Area. Foraging habitat for both Swainson's hawks and white-tailed kite is present in adjacent agricultural areas and in the Sacramento Bypass Wildlife Area. Construction in the vicinity of nest sites could disturb nesting through visual distraction, or direct impacts on occupied nests (e.g., tree removal or ground disturbance). Due to the high baseline noise levels at the site (including noises from the car track and gun range), construction-related noise is not anticipated to result in significant impacts to nesting birds. Impacts on Swainson's hawk and white-tailed kite nesting sites that result in nest abandonment, nest failure, or a reduction in health or vigor of nestlings would be considered significant.

Special-status passerines that may nest in vicinity of the Project site include bank swallow (*Riparia Riparia*), grasshopper sparrow (*Ammodramus savannarum*), purple martin (*Progne subis*), tricolored blackbird (*Agelaius tricolor*), yellow-headed blackbird (*Xanthocephalus xanthocephalus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), and song sparrow [Modesto population (*Melospiza melodia*)]. Additionally, migratory birds protected under the MBTA and nesting birds protected by California Fish and Game Code § 3503 could nest within the Project site. Proposed Project activities (e.g., grading, vegetation removal, construction noise) could result in nest abandonment of these species. Proposed Project activities would remove isolated trees, stands of cattail and bulrush marsh, and blackberry brambles that provide potentially suitable nesting habitat for birds. If nesting birds were to occur in the Project site, construction activities during the breeding season could result in adverse impacts on these species. Implementation of **Mitigation Measure BIO-3 (Conduct Nesting Bird Surveys, for Work Between February 15 and August 31 and Implement**

**Avoidance Measures)** would require that nesting bird surveys be conducted and avoidance measures implemented to protect nesting birds and raptors during the breeding bird season. As a result, impacts on nesting special-status birds and raptors, and birds protected under the Migratory Bird Treaty Act and California Department of Fish and Game Code would be **less than significant with mitigation**.

**Mitigation Measure BIO-3: Conduct Nesting Bird Surveys for work between February 15 and August 31 and Implement Avoidance Measures (if necessary).**

If construction activities commence between February 15 and August 31, a qualified biologist shall conduct a nesting bird survey in all accessible areas of suitable nesting habitat. Surveys for raptors will extend out to 500 feet of construction activities and 100 feet for passerines. The survey shall be conducted within 2 weeks prior to the start of work. If a lapse in Project-related work of 2 weeks or longer occurs, another focused survey shall be conducted before Project work can be reinitiated. Timing of these surveys shall be appropriate to detect Swainson's hawks and white-tailed kite, if they are suspected of nesting in the vicinity of the Project.

If nesting birds are found, a buffer shall be established around the nest and maintained until the young have fledged. Appropriate buffer widths are 500 feet for listed raptors, 300 feet for non-listed raptors and special-status passerines, and 100 feet for non-listed passerines. A qualified biologist may identify an alternative buffer based on a site-specific evaluation and in consultation with CDFW. Work shall not commence within the buffer until fledglings are fully mobile and no longer reliant upon the nest or parental care for survival.

### *Mammals*

Four special-status mammal species have potential to occur within the Project vicinity (see Appendix D), of which three bat species have potential to occur within the Project site: pallid bat (*Antrozous pallidus*), silver-haired bat (*Lasionycteris noctivagans*), and hoary bat (*Lasierus cinerus*). There are several individual and stands of trees in the Project site that are potential roost sites for bats. Noise, vibration, or increased lighting can lead to the disturbance of roosting bats, if present. Although construction activities at the Proposed Project site would be temporary, disturbance that leads to the abandonment of special-status bat maternity roosts would be a significant impact. Implementation of **Mitigation Measure BIO-4 (Conduct Preconstruction Surveys and Implement Measures to Avoid or Minimize Impacts on Bat Colonies)** would ensure that surveys were completed prior to construction to identify roosting bats and maternity roosts within the Project site, and would also implement avoidance and minimization measure to reduce impacts to bats. Impacts to bats and their maternity roosts would be less **than significant with mitigation**.

**Mitigation Measure BIO-4: Conduct Preconstruction Surveys and Implement Measures to Avoid or Minimize Impacts on Bat Colonies**

The following measures shall be implemented to minimize impacts on individual colonial bats using trees for temporary roosts, and obligate tree bats, such as hoary bats:

- Prior to removal of trees a qualified biologist shall assess trees to be removed for potential bat habitat. If the biologist determines that no bats are present in tree(s), then they may be removed.

- For trees that provide potential bat habitat, tree removal shall occur between March 1 and April 15 or between August 31 and October 15 to avoid the bat maternity season and winter torpor period, unless a focused survey determines that bats are not roosting in the tree(s).

- A two-stage tree removal process over two consecutive days shall be implemented for trees that may support colonial roosts (i.e., trees with cavities, crevices, or exfoliating bark) unless a focused survey conducted by a qualified bat biologist determines that no bats are present in tree(s) to be removed. The two-stage tree removal process is as follows:

  - Step 1: small branches and small limbs containing no cavity, crevice or exfoliating bark are removed with chainsaws under field supervision by a qualified bat biologist.
  - Step 2: the remainder of the tree is to be removed the following day. The disturbance caused by chainsaw noise and vibration, coupled with the physical alteration, has the effect of causing colonial bat species to abandon the roost tree after nightly emergence for foraging. Removing the tree the next day prevents re-habituation and re-occupation of the altered tree.

### b. Substantial adverse effect on any riparian habitat or other sensitive natural community — *Less than Significant with Mitigation*

Sensitive natural communities that would be affected by the Proposed Project include wetland and riparian habitats. Wetlands are addressed separately in section (c) below. Proposed Project activities would take place in riparian habitat within Channel CH2, including in mixed riparian forest vegetation (e.g., valley oak and Fremont cottonwood). The Project has been designed to avoid and retain the majority of riparian trees associated with Channel CH2; however, Proposed Project construction associated with the installation of ditches, erosion control, concrete V-gutters, and trench drain would involve the removal of on-site vegetation and some trees within riparian habitat, which is identified as a sensitive natural community. Approximately 10 trees would be removed, including Fremont cottonwood (*Populus fremontii*) and Goodding's willow (*Salix gooddingii*). Although the channel would be re-routed or hardened in some areas, established trees that would not be removed are anticipated to have sufficient access to groundwater; therefore, mortality from changed drainage patterns is not anticipated. Degradation of riparian habitat could also occur by altering hydrologic function that would decrease seasonal inundation and reduce the capacity of the habitat to support woody vegetation. Although Project activities, including road improvements, would increase the extent of impermeable surfaces, the Proposed Project is designed to accommodate any additional stormwater flows that would result from these changes, and the proposed site grading and recontouring for increased stormwater conveyance would provide opportunity for riparian habitat to establish via natural recruitment post-construction. However, the loss of larger riparian trees would be a

significant impact because of the substantial amount of time it would take for natural recruitment and reestablishment of native tree species. Implementation of **Mitigation Measure BIO-5 (Implement Replacement of Riparian Trees)** would require replacement plantings of native tree species removed during construction activities. As a result, this impact would be **less than significant with mitigation.**

**Mitigation Measure BIO-5: Implement Revegetation within Riparian Habitat and Sensitive Natural Communities Disturbed during Construction.**

Upon completion of construction, any plants of native woody species of 4 inches in diameter at breast height (dbh) or greater that are damaged or removed as result of construction activity shall be replaced at a 1:1 ratio; this ratio will increase to 3:1 for native trees of 24 inches dbh and greater. Replaced woody plant species shall be maintained and monitored to ensure a minimum of 65 percent survival of woody plantings after 3 years.

### c. Substantial adverse effects on state or federally protected wetlands — *Less than Significant with Mitigation*

A jurisdictional delineation of waters of the U.S., including wetlands, was conducted at the Project site in March and April 2019 (Horizon 2019). The Project site contains 0.289 acres of potentially jurisdictional wetlands of the U.S. consisting of freshwater marsh. The Project site also contains 0.451 acres of potentially jurisdictional non-wetland waters of the U.S. (e.g., ephemeral/intermittent channels and culverted waters) and approximately 167 linear feet of potentially non-jurisdictional stormwater channels. Work within areas defined as waters of the U.S. that would involve placement of fill would require a CWA Section 404 permit and Section 401 water quality certification. Grading would occur throughout the entire channel to re-establish a consistent gradient and develop a new flowline. All work proposed in jurisdictional waters of the U.S. would be authorized under these permits, and the work would comply with the general and regional permit conditions.

Proposed Project activities (e.g., excavation of drainage system, channel grading, installation of ditches, concrete V-gutters, and trench drain) would result in work within waters of the U.S. Impacts to waters of the U.S. would be both temporary (0.38 acres) and permanent (0.08 acres). Although Proposed Project activities would impact waters of the U.S., the Proposed Project would implement drainage improvements to remedy storm water conveyance inadequacies in Channel CH2. The Proposed Project would prevent future flooding around CHP facilities.

Impacts to federally-protected wetlands through temporary or permanent fill, excavation, and erosion or sedimentation are considered to be potentially significant. Implementation of **Mitigation Measure BIO-6**, which requires regulatory permits for work in wetlands and waters, would reduce this impact to **less than significant with mitigation**.

**Mitigation Measure BIO-6: Obtain Regulatory Permits for Work Activities Taking Place in Wetlands and Waters of the United States and the State**

Work within areas defined as waters of the U.S. that includes placement of fill will require a CWA Section 404 permit and Section 401 Water Quality Certification. All

work proposed in jurisdictional waters of the U.S. shall be authorized under these permits, and the work shall comply with the general and regional conditions of the permits. In areas where disturbance to jurisdictional waters or wetlands occurs, the State shall implement mitigation, if deemed necessary, consistent with the terms of a CWA Nationwide Permit and/or the Final Rule on Compensatory Mitigation for Losses of Aquatic Resources (73 CFR § 19594). Compensatory mitigation may include creation, reestablishment, or enhancement of wetlands at an on-site or off-site location. Compensatory mitigation may also include purchase of credits at an approved mitigation bank or contribution to an approved in-lieu fee program.

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

A wildlife corridor is generally a topographical/landscape feature or movement area that connects two open space habitat parcels that would otherwise be entirely fragmented or isolated from one another. Wildlife corridors link areas of suitable wildlife habitat that are otherwise separated by changes in vegetation, rugged terrain, or human disturbance. The Sacramento Bypass Wildlife Area, Yolo Bypass Wildlife Area, Sacramento River corridor, and associated habitats are considered important wildlife movement corridors in this portion of Yolo County for waterfowl and shorebirds.

Levees situated between Channel CH2 and the Sacramento River do not allow for fish movement between the two water bodies, thus Proposed Project activities would not interfere with anadromous fish passage. The Proposed Project may result in temporary disruption of wildlife movement through the Project area due to increased human presence during Proposed Project activities, but these would occur over a relatively short duration in discontinuous phases. The baseline noise level of the CHP academy includes a high level of human activity, including a shooting range, and several driving tracks. While Proposed Project construction would generate noise, light, and an increased level of human activity in the area, this increase is not anticipated to significantly impact wildlife that may use wildlife corridors or nursery sites in the vicinity of the Proposed Project. Proposed Project construction would be temporary and small compared to noise generated from activities associated with other facilities located in the vicinity of the Project site (see Section 3.13, "Noise," for more details). Additionally, adjacent open space and other undeveloped land (e.g., Sacramento Bypass Wildlife Area, Yolo Bypass Wildlife Area) would still be available for wildlife movement during Project implementation.

The Project area contains suitable nesting habitat for birds, which would be considered nursery sites. Noise and disturbance associated with implementation of the Proposed Project could temporarily adversely affect birds during their nesting season. Potential Project effects on protected bird nests are discussed above, under checklist topic "a". As discussed above, Proposed Project construction and associated noise are not anticipated to significantly impact wildlife that may use the Project area as a movement corridor.

Implementation of Mitigation Measures BIO-2, BIO-3 and BIO-4 as discussed above would avoid or minimize adverse effects on wildlife movements and nursery sites during Proposed Project activities. As a result, this impact would be **less than significant with mitigation.**

### *e.* Conflict with local policies or ordinances protecting biological resources — *No Impact*

Proposed Project activities (e.g., excavation of drainage system, channel grading, installation of ditches, concrete V-gutters, and trench drain) would result in removal of ten trees. Species that would be removed include Fremont cottonwood (*Populus fremontii*) and Goodding's willow (*Salix gooddingii*). No trees on the Project site meet the trunk circumference of 75 inches or more that would require mitigation under the City of West Sacramento's tree ordinance. Additionally, development activities on state-owned land are exempt from local laws, regulations, and policies. Nevertheless, relevant local laws, regulations, and policies can be found in Appendix A. The Proposed Project would be consistent with the City of West Sacramento's tree ordinance (see Appendix A), and there will be **no impact.**

### f. Conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP — *No Impact*

The Proposed Project site is located within the boundaries of the Yolo County Habitat Conservation Plan (YCHCP) (Yolo Habitat Conservancy 2018). The YCHCP is a countywide plan designed to provide management and conservation for natural communities, special-status species, and the habitats and agricultural lands on which those species depend. The Project does not require a discretionary permit/approval from the City of West Sacramento; therefore, coverage under the YCHCP is not required and the Project would not be subject to the conditions and fees contained in the YCHCP. Nevertheless, the Proposed Project's Mitigation Measures BIO-1 through BIO-4 are comparable to the YCHCP's avoidance and minimization measures for sensitive natural communities, wetlands and waters, valley elderberry longhorn beetle, western pond turtle, Swainson's hawk and white-tailed kite. The Project would not conflict with YCHCP and there would be **no impact**.

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# 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? | ☐ | ☐ | ☐ | ☒ |
| b. Cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5? | ☐ | ☒ | ☐ | ☐ |
| c. Disturb any human remains, including those interred outside of formal cemeteries? | ☐ | ☒ | ☐ | ☐ |

## 3.5.1 Regulatory Setting

### *Federal Laws, Regulations, and Policies*

The Proposed Project requires a federal permit under Section 404 of the Clean Water Act. As such, the following federal laws apply to the Proposed Project.

### *National Historic Preservation Act*

Projects that require federal permits, receive federal funding, or are located on federal lands must comply with 54 USC 306108, formally and more commonly known as Section 106 of the National Historic Preservation Act (NHPA). To comply with Section 106, a federal agency must "take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Places [NRHP]." The implementing regulations for Section 106 are found in 36 CFR Part 800, as amended.

The implementing regulations of the NHPA require that cultural resources be evaluated for NRHP eligibility if they cannot be avoided by an undertaking or project. To determine if a site, district, structure, object, and/or building is significant, the NRHP Criteria for Evaluation are applied. A resource is significant and considered a historic property when it:

- Is associated with events that have made a significant contribution to the broad patterns of our history; or
- Is associated with the lives of persons significant in our past; or
- Embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that

represents a significant and distinguishable entity whose components may lack individual distinction; or

- Yields, or may be likely to yield, information important in prehistory or history.

In addition, 36 CFR § 60.4 requires that, to be considered significant and historic, resources must also exhibit the quality of significance in American history, architecture, archaeology, engineering, or culture and must possess integrity of location, design, setting, materials, workmanship, feeling, and association.

Other "criteria considerations" need to be applied to religious properties, properties that are less than 50 years old, a resource no longer situated in its original location, a birthplace or grave of a historical figure, a cemetery, a reconstructed building, and commemorative properties. These types of properties are typically not eligible for NRHP inclusion unless the criteria for evaluation and criteria considerations are met.

For archaeological sites evaluated under criterion D, "integrity" requires that the site remain sufficiently intact to convey the expected information to address specific important research questions.

Traditional Cultural Properties (TCPs) are locations of cultural value that are historic properties. A place of cultural value is eligible as a TCP "because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community" (Parker and King 1990, rev. 1998). A TCP must be a tangible property, meaning that it must be a place with a referenced location, and it must have been continually a part of the community's cultural practices and beliefs for the past 50 years or more.

## *State Laws, Regulations, and Policies*

### CEQA and CEQA Guidelines

Section 21083.2 of CEQA requires that the lead agency determine whether a project may have a significant effect on unique archaeological resources. A unique archaeological resource is defined in CEQA as an archaeological artifact, object, or site about which it can be clearly demonstrated that there is a high probability that it:

- Contains information needed to answer important scientific research questions, and there is demonstrable public interest in that information;
- Has a special or particular quality, such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Although not specifically inclusive of paleontological resources, these criteria may also help to define "a unique paleontological resource or site" (which are further discussed in Section 3.7, "Geology, Soils, and Seismicity").

Measures to avoid, conserve, preserve, or mitigate significant effects on these resources are also provided under CEQA § 21083.2.

Section 15064.5 of the CEQA Guidelines notes that "a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment." Substantial adverse changes include physical changes to the historic resource or to its immediate surroundings, such that the significance of the historic resource would be materially impaired. Lead agencies are expected to identify potentially feasible measures to mitigate significant adverse changes in the significance of a historic resource before they approve such projects. Historical resources are those that are:

- listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR) (Public Resources Code § 5024.1[k]);
- included in a local register of historic resources (Public Resources Code § 5020.1) or identified as significant in an historic resource survey meeting the requirements of Public Resources Code § 5024.1(g); or
- determined by a lead agency to be historically significant.

CEQA Guidelines § 15064.5 also prescribes the processes and procedures found under Health and Safety Code § 7050.5 and Public Resources Code § 5097.95 for addressing the existence of, or probable likelihood of, Native American human remains, as well as the unexpected discovery of any human remains within the project site. This includes consultation with the appropriate Native American tribes.

CEQA Guidelines § 15126.4 provides further guidance about minimizing effects to historical resources through the application of mitigation measures. Mitigation measures must be legally binding and fully enforceable.

### California Register of Historical Resources

Public Resources Code § 5024.1 establishes the California Register of Historical Resources (CRHR). The register lists all California properties considered to be significant historical resources. The CRHR includes all properties listed as or determined to be eligible for listing in the NRHP, including properties evaluated under Section 106 of the NHPA. The criteria for listing are similar to those of the NRHP. Criteria for listing in the CRHR include resources that:

Are associated with the events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

Are associated with the lives of persons important in our past;

Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or

Have yielded, or may be likely to yield, information important in prehistory or history.

The regulations set forth the criteria for eligibility as well as guidelines for assessing historical integrity and resources that have special considerations.

## 3.5.2 Environmental Setting

### *Prehistory*

Like many parts of California, archaeologists are still in the process of building a basic archaeological record for the Sacramento Valley. Much of the record is unknown, and evidence of the early occupations dating more than 3,000 years ago is especially lacking. However, broad outlines of California prehistory are best captured by an integrative scheme that proposes three basic prehistoric periods: Paleoindian, Archaic, and Emergent. The Archaic is further subdivided into the Lower, Middle, and Upper periods, and the Emergent into Lower and Upper (sometimes referred to as Phase 1 and Phase 2) divisions. Each period is characterized by a generally prevailing economic, cultural, and environmental condition. However, each geographical region is expected to have a different pattern of prehistoric culture and culture change. The dating of these various periods continues to be refined; those presented below are largely derived from *The Central Valley: A View from the Catbird's Seat* (Rosenthal, et al. 2010). The archaeological periods are listed in **Table 3.5-1**.

**Table 3.5-1**. Prehistoric Archaeological Periods of the Sacramento Valley

| Archaeological Period | Age<br>Years Before Present | Characteristics |
|---|---|---|
| Paleoindian Period:<br>Western Clovis Tradition | > 10,550 years | Opportunistic hunters and foragers; possibly hunted Pleistocene megafauna. Low population. Fluted projectile points (darts), flaked stone crescents. |
| Lower Archaic Period:<br>Borax Lake Pattern | 10,550 – 7550 years | Hunters and foragers. Low population. Wide-stemmed projectile points; hand stones and milling stones; use of obsidian. |
| Middle Archaic Period:<br>Windmiller | 7550 – 2550 years | Introduction of dietary specializations focused on acorns, deer, and freshwater and anadromous fisheries. Establishment of villages with cemeteries. Expanded material culture, including basketry, use of marine shell for beads and ornaments; continued use of hand stones and milling stones; a variety of dart forms such as notched, stemmed, thick leaf or lozenge, and narrow concave. |
| Upper Archaic Period:<br>Berkeley Pattern | 2550 – 1000 years | Increased cultural diversity represented by distinct regional specializations; increased populations; more complex social structure. Introduction of mortars and pestles for acorn processing; expanded bone tool industry; diamond-shaped and stemmed projectile points. |

| Archaeological Period | Age<br>Years Before Present | Characteristics |
|---|---|---|
| Emergent Period: Augustine Pattern – Phase 1 | 1000 – 600 years | Increased sedentism and populations. Coalescence of long-distance, integrative trade spheres, and the introduction of the bow and arrow that replaced the dart as the favored hunting implement. Increased use of fishing and acorns. |
| Emergent Period: Augustine Pattern – Phase 2 | 600 – 200 years | Continuation and intensification of Phase 1 traits; considered representative of Native American cultures encountered by the first non-native colonists. Small corner-notched and triangular points, clam disc beads, magnesite cylinders, bedrock mortars. |

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 in downtown Sacramento, indicate that people were living in the region from the earliest times within this period (Tremaine 2008). 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.

### *Ethnohistory*

The west side of the Sacramento River, including the Project area, is not clearly claimed by any ethnographic group 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 Valley Nisenan territory and that their western neighbors, the Valley 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 Valley 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 in the vicinity of the Project, though communities are known to have been located on areas of high ground (natural levees) along the Sacramento River.

### *Historic Era*

The historic era 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. 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. 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 become established in the area of present-day 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 the property, then known as Washington or Washington Township, in 1850 (Walters 1987). Washington quickly became the political center of Yolo County and served as county seat for the better part of its first decade. However, in 1862, the county seat was permanently moved to Woodland due to consistent winter flooding on the west side of the Sacramento River (West Sacramento Historical Society 2004).

As steamship and other Sacramento River traffic increased in the 1850s, Washington Township grew into a port town. In 1859, the California Steam Navigation Company established a shipyard for riverboats in town; it quickly became a major local industry, and it remained in operation for nearly a century. Washington Township also shipped fish, dairy, and produce to Sacramento and San Francisco Bay Area markets, as well as profiting from miners passing through. The township was divided for decades on the issue of incorporation; repeated unsuccessful attempts were made to either incorporate (beginning in 1893) or pursue annexation by Sacramento (beginning in 1861). The post office, established in 1893, was called Broderick because the name Washington was in use in Nevada County; while locals initially resisted the name, they began to refer to the area as Broderick by the 1910s. The population reached 1,000 by 1915 (Walters 1987:13-14, 19-20, 24; West Sacramento Historical Society 2004:7).

San Francisco-based D.W. Hobson Company purchased land immediately north of Broderick in 1910, and began to develop it as the community of Riverbank. The area was quickly populated, primarily by Italian, Portuguese, Russian, and Japanese farmers. Residents began to call Riverbank "Bryte" after the post office was established in 1915 and to discuss incorporation in the 1920s, but as with Broderick, actual steps toward incorporation were not made. The West Sacramento Land Company was formed in 1907 to develop the area south of Broderick and Bryte by the capitalists who had started PG&E, but the economic difficulties caused by flooding and the cost of reclaiming the swampy land soon forced them to reorganize as the West Sacramento Company. The company mapped out a plan for a "model city" under the name West Sacramento in 1913. They hired San Francisco architects Lewis P. Hobart and Charles H. Cheney to lay out the new city. Hobart & Cheney had studied architecture in Paris, and Cheney was to become a pioneering advocate of city planning in the United States. They devised an ambitious plan for West Sacramento modeled on Paris, with radial layout and grand boulevards. The plan could not be realized until much of the land had been cleared, reclaimed, and freed from the danger of flooding by levee construction. West

Sacramento Company used engineering company Haviland, Dozier, and Tibbets for the reclamation and levee work. By early 1913, the company was advertising with claims that it had cleared hundreds of acres for farming, established a nursery for boulevard and park plantings, and graded 30 miles of roadways. By 1917, the reclamation work was complete, and the company was able to sell lots in West Sacramento, although most land sold for farms rather than development of the grand city of the Hobart & Cheney plan. Financial difficulties once again forced the company to reorganize in the 1920s (Coast Banker 1913:262-263; Larkey and Walters 1987:64; Walters 1987:28-30).

The levees were completely stabilized in the 1920s, reducing the threat of flooding, and the area remained agricultural, growing slowly for decades. Prohibition largely passed the area by; with a thriving hop industry, too many people ignored the law for it to be enforceable, and many sellers continued to advertise openly. Hollywood filmmakers began regularly using 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 30-foot-deep ship channel and a 60-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 1970s. 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 Federal Census 2010; Walters 1987:46; West Sacramento Historical Society 1986:7).

### California Highway Patrol Academy

The CHP was established in 1929 to enforce traffic laws on state and county roadways through an act of the California State Legislature. Within a decade, there were 730 uniformed personnel throughout the state. It formally became the Department of the CHP in 1947 (CHP 2019).

The original legislation also established the CHP Academy, which opened in 1930. This first Academy was housed at Mather Field near Sacramento. Shortly thereafter, it was moved to the State Fairgrounds, also in Sacramento. Full-time training was suspended in 1938 due to an economic downturn, and for the next 11 years classes were only occasionally held for new recruits (CHP 2019). The Academy again became fully operational in 1948. A new 224-acre facility was built for the Academy in 1954 on Meadowview Road in south Sacramento. It initially housed 80 cadets, but was expanded with temporary buildings in the 1960s in order to accommodate 360 residential students.

The ground-breaking ceremony for the current Academy campus took place in 1974. Today's Academy occupies 457 acres. The facilities house 280 cadets in dormitories and have a classroom capacity for 362 students. A large dining room, a recreation room, and a fully contained gym, which doubles as an auditorium, are also on the campus to serve the recruits. Among the other facilities on the campus are separate high-performance driving tracks for both four-wheeled vehicles and motorcycles, a weapons training facility, and the canine training facility (CHP 2019).

### 3.5.3 Cultural Resources Studies

Cultural resources include prehistoric archaeological sites; historic-era archaeological sites; tribal cultural resources (TCRs); and historic buildings, structures, landscapes, districts, and linear features. TCRs are addressed in Section 3.18, "Tribal Cultural Resources."

#### Archival Research

A record search was conducted by Horizon cultural resources staff at the Northwest Information Center of the California Historical Resources Information System at Sonoma State University on March 1, 2019 (IC File Number 18-1647). 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 0.5 -mile buffer, and to determine whether any portions of the Project site had been surveyed for cultural resources. The record search determined that no cultural resources studies have been conducted within the Project area, but 14 studies have taken place within the 0.5-mile record search area. Nearly all of these studies were linear in nature and focused either on the levees in the area or were related to utility lines. The closest survey to the CHP Academy was of the levee that bounds the Sacramento Bypass Wildlife Area on the south; this same levee defines the north border to the CHP Academy. Other studies that encompass the Project area include various historic, archaeological, and ethnographic overviews. A complete list of the studies identified by the record search is included in Appendix B of the Cultural Resources Report for the Project (see Appendix E of this IS/MND).

The record search did not identify any previously recorded cultural resources within the Project area, although four resources have been recorded within the 0.5-mile buffer. All of the resources are of the historic era. These resources include:

- The Sacramento Northern/Northern Electric Railway Route (P-57-000195/001272);
- The Sacramento Weir and Sacramento Bypass (P-57-000568);
- The townsite of Bryte (P-57-001399); and

- The site of Rose Orchard (P-57-001446).

### Native American Consultation

An email request was made to the Native American Heritage Commission (NAHC) on February 13, 2019, to review its files for the presence of recorded sacred sites on the Project site. The NAHC responded on February 27, 2019, stating that the records search identified significant resources in the Project vicinity. The NAHC also provided a list of three tribes and tribal contacts with a traditional and cultural affiliation with the Project area for notification pursuant to Public Resources Code § 21080.3.1 (Assembly Bill 52). Coordination with tribes is described in Section 3.18, "Tribal Cultural Resources."

### Area of Potential Effects

The area of potential effects (APE) (Figure 3 in Appendix E) for the Proposed Project consists of approximately 43.8 acres and contains the length of Channel CH2 as well as three spoils areas. The maximum depth of the APE is 3.5 feet below the ground surface to accommodate channel excavation.

### Archaeological Survey and Results

A pedestrian archaeological survey was conducted of the APE on March 4 and April 18, 2019, by a qualified archaeologist who meets the U.S. Secretary of Interior's professional standards in archaeology. The entire Project area was investigated by pedestrian survey in transects spaced approximately 60 feet apart, although the transects had to be modified or abandoned in areas that were flooded or extremely saturated due to recent rains and in areas covered with dense thistle. The wet areas were largely around the canine training facility and along Channel CH2 for about 640 feet to the west of the canine facility. The proposed spoils area to the southeast of the canine facility is an existing spoils area that contains large piles of soil and debris. This area was densely covered with tall milk thistle, and was not surveyed, though the perimeter of the spoils area was walked. A smaller but similarly active spoils area located at the northwest edge of the study area and a patch of thistle near the southwest corner of the Project site were also circumvented during the survey. Approximately 5.2 acres of the APE were not investigated. The areas not completely covered by pedestrian survey are identified in Figure 3 of Appendix E.

No archaeological resources were identified and recorded during the course of the survey. Because the CHP Academy campus is less than 50 years old, the canine training facility and Channel CH2 were not recorded as built environment resources.

## 3.5.4 Discussion of Checklist Responses

### a. Adverse change in the significance of a historical resource—*No Impact*

The canine facility and Channel CH2 are less than 50 years old and are not eligible for listing on the NRHP or CRHR. No historical resources are located within the Project footprint; therefore, there would be **no impact** on historical resources.

Historical resources that are archaeological in nature may be accidentally discovered during Project construction; archaeological resources are discussed further in Section 3.5.2(b) below.

### b. Adverse change in the significance of an archaeological resource—*Less than Significant with Mitigation*

No archaeological resources, as defined in § 15064.5 of the CEQA Guidelines, have been identified within the Project area; however, archaeological remains may be buried with no surface manifestation and the area was determined sensitive for buried archaeological resources as a result of the geoarchaeological analysis. The entire Project area was graded and contoured during construction of the CHP Academy. A review of the original grading plans (Frank L. Hope & Associates 1973) suggests that the area along Channel CH2 was lowered up to 5 feet in elevation, thus any proposed excavation will be into original ground. Channel excavations will be limited to 3.5 feet in depth, which 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. The Project site is not particularly sensitive for historic-era archaeological remains, as historic maps and aerial photographs indicate that it has only been used for agricultural purposes prior to construction of the CHP Academy. As a result, if present, historic-era archaeological remains are likely to consist of agriculturally related items such as pieces of wire, or perhaps equipment parts, and possibly items left from farm workers such as tin cans and fragments of glass bottles.

If archaeological remains are accidentally discovered that are determined eligible for listing in the CRHR/NRHP, 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** would ensure that impacts on currently unknown CRHR-eligible archaeological sites are reduced to a less-than-significant level. Pre-construction cultural resources awareness training would alert construction personnel about the potential for buried archaeological resources and provide guidelines for stopping work, should any such resources be encountered. Furthermore, Mitigation Measure CR-1 would require monitoring of ground disturbing activities during construction. **Mitigation Measure CR-2** would call for immediately halting work if materials are discovered during construction activities, evaluating the finds for CRHR/NRHP eligibility, and implementing appropriate mitigation measures, as necessary. Implementation of Mitigation Measures CR-1 and CR-2 would reduce impacts related to currently unknown archaeological resources to a level that would be **less than significant with mitigation.**

**Mitigation Measure CR-1: Pre-construction Cultural Resources Awareness Training and Construction Monitoring.**

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 guidelines for professional archaeologists. A representative or representatives from culturally affiliated Native American tribe(s) who have participated in consultations with California Department of General Services (DGS) 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.

Excavations to deepen Channel CH2 will be monitored by a qualified archaeologist meeting the U.S. Secretary of Interior guidelines for professional archaeologists. Interested Native American tribes will be invited to observe Project excavation activities with the archaeologist, and will be provided at least seven days' notice prior to the initiation of ground disturbing activities. The archaeological monitor will record activities daily and a weekly summary will be provided to DGS. A monitoring report will be prepared at the end of excavation activities and submitted to DGS.

**Mitigation Measure CR-2: Response Measures for Potential Unknown Archaeological Resources and Tribal Cultural Resources.**

If evidence of any subsurface archaeological features or deposits are discovered during construction-related earth-moving activities (e.g., lithic scatters, midden soils, historic era farming or construction materials), all ground-disturbing activity in the area of the discovery shall be halted within 100 feet of the find until a qualified archaeologist and Native American representative from a traditionally and culturally affiliated tribe, as appropriate, can assess the significance of the find and make recommendations for further evaluation and treatment as necessary. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts.

If after evaluation, a resource is considered significant, or is considered a tribal cultural resource, all preservation options shall be considered as required by CEQA (see Public Resources Code 21084.3), including possible capping, data recovery, mapping, or avoidance of the resource. Treatment that preserves or restores the cultural character and integrity of a tribal cultural resource may include tribal monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil. If artifacts are recovered from significant prehistoric archaeological resources or tribal cultural resources, the first option shall be to transfer the artifacts to an appropriate tribal representative. If possible, accommodations shall be made to re-inter the artifacts at the Project site. Only if no other options are available will recovered prehistoric archeological material be housed at a qualified curation facility. The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and distributes this information to the public.

### c. Disturbance of any human remains, including those interred outside of formal cemeteries—*Less than Significant with Mitigation*

No evidence of human remains was observed within the Project site. Although the Project site has been previously disturbed by grading for the construction of Channel CH2 and landscaping of the CHP Academy campus, there is the possibility that human remains could be discovered during excavation activities. Should any such remains be discovered during construction, the California Health and Safety Code § 7050.5 requires that work immediately stop within the vicinity of the finds and that the County coroner be notified to assess the finds. Implementation of **Mitigation Measure CR-3** would ensure that the Proposed Project would not result in any substantial adverse effects on human remains uncovered during the course of construction by requiring that, if human remains are uncovered, work must be halted and the County coroner must be contacted. Adherence to these procedures and provisions of the California Health and Safety Code would reduce potential impacts on human remains to **less than significant with mitigation.**

**Mitigation Measure CR-3: Response Protocol for the Unanticipated Discovery of Human Remains**

Consistent with the California Health and Safety Code and the California Native American Historical, Cultural, and Sacred Sites Act, if suspected human remains are found during project construction, all work shall be halted within 100 feet of the finds, and the Yolo County coroner shall be notified to determine the nature of the remains. The coroner shall examine all discoveries of suspected human remains within 48 hours of receiving notice of a discovery on private or State lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she shall contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The NAHC shall then assign a most likely descendant (MLD) to serve as the main point of Native American contact and consultation. Following the coroner's findings, the MLD, in consultation with the State, shall determine the ultimate treatment and disposition of the remains.

# 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 impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation? | ☐ | ☐ | ☒ | ☐ |
| b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | ☐ | ☐ | ☒ | ☐ |

## 3.6.1 Regulatory Setting

This section describes the federal and state regulations related to energy resources. Local regulations are presented in Appendix A. Section 3.8, "Greenhouse Gas Emissions," contains additional discussions of greenhouse gas emissions (GHG)-related regulations that may also be relevant to energy resources.

At the federal level, the USEPA and the National Highway Traffic Safety Administration (NHTSA) have developed regulations to improve the efficiency of cars and light-, medium-, and heavy-duty vehicles. These regulations are discussed in greater detail in Section 3.8. At the state level, several regulations are aimed at improving the efficiency of vehicles as well as reducing the carbon content and energy used in making transportation fuels.

Energy resource-related regulations, policies, and plans at the state level require the regular analysis of energy data and developing recommendations to reduce statewide energy use, and setting requirements on the use of renewable energy sources. Senate Bill (SB) 1389, passed in 2002, requires the California Energy Commission (CEC) to prepare an Integrated Energy Policy Report for the governor and legislature every 2 years (CEC 2019a). The report analyzes data and provides policy recommendations on trends and issues concerning electricity and natural gas, transportation, energy efficiency, renewable energy, and public interest energy research (CEC 2019b). The 2018 Integrated Energy Policy Report Update includes policy recommendations such as addressing the vulnerability of California's energy infrastructure to extreme events related to climate change, including sea level rise and coastal flooding (CEC 2018).

In addition, since 2002, California has established increasingly higher targets of electricity retail sales be served by eligible renewable resources through multiple senate bills and executive orders.

Section 3.8, "Greenhouse Gas Emissions," provides additional details on California's 2017 Climate Change Scoping Plan, which details the state's strategy for achieving the state's GHG targets, including energy-related goals and policies. It contains measures and actions that

may pertain to the Proposed Project relating to vehicle efficiency and transitioning to alternatively powered vehicles (CARB 2017).

The California Highway Patrol Sustainability Roadmap 2018-2019, includes energy goals aimed at improving energy efficiency and reducing energy and fuel usage (CHP 2017).

## 3.6.2 Environmental Setting

### *Energy Resources and Consumption*

California has extensive energy resources (including an abundant supply of crude oil, and high production of conventional hydroelectric power) and leads the nation in electricity generation from renewable resources (solar, geothermal, and biomass resources) (U.S. Energy Information Administration [EIA] 2019). California has the second highest total energy consumption in the United States but one of the lowest energy consumption rates per capita (48th in 2016) due to its mild climate and energy efficiency programs (EIA 2019). A comparison of California's energy consuming end-use sectors indicates that the transportation sector is the greatest energy consumer, by approximately two to three times, compared to the other end-use sectors (Industrial, Commercial, and Residential, which are listed in order of greatest to least consumption) (EIA 2019). California is the largest consumer of motor gasoline and jet fuel in the United States (EIA 2019).

Fleet fuel consumption is a major source of CHP's energy use. In 2016, the Department used 7.6 million GGE (gasoline gallon equivalent) (CHP 2019). In 2016, the CHP purchased 34,627,264 kWh of electricity, 273,705 therms of natural gas, and 177,306 gallons of propane. CHP Academy buildings used 43,649,266 kBTU of energy, roughly 16 percent of the total CHP building consumption (CHP 2017).

## 3.6.3 Discussion of Checklist Responses

### a, b. Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation or conflict with or obstruct a state or local plan for renewable energy or energy efficiency—*Less than Significant*

This evaluation considers the extent to which the Proposed Project would affect energy resources during construction of the Proposed Project. Effects on energy resources are evaluated based on the energy demand of the Proposed Project. This includes the direct consumption of diesel and gasoline. The Proposed Project would not consume natural gas or electricity during construction activities. The indirect life cycle of the various products and equipment to be used during construction activities would include several forms of energy consumption that are imbedded in a product's manufacturing and distribution. For example, petroleum products may serve as precursors that would be the raw material used in manufacturing construction equipment and the manufacturing process would likely use natural gas and electricity. Petroleum-based fuels would be used to bring products from the place they are manufactured to the location where they are to be used. Other raw materials such as steel and cement contain large amounts of embodied energy to produce the material that may be used on site during construction. Since the details of embodied energy in material

is complex and would be speculative as to the amount of energy embedded, the indirect life-cycle energy is not included in this analysis.

The Proposed Project's construction activities would require the consumption of energy (fossil fuels) for construction equipment, worker vehicles, and truck trips. **Table 3.6-1** shows the estimated fuel use during construction from construction equipment, worker vehicles, and truck trips. The calculations used to develop these estimates are presented in Appendix C. The Proposed Project would not have any operation-related activities, facilities, or equipment and therefore would not generate any permanent energy demands.

**Table 3.6-1**. Project Fuel and Energy Use

| Consumption Category | Energy Source | |
|---|---|---|
| Construction Fuel Consumption | Gasoline Fuel Use (gallons) | Diesel Fuel Use (gallons) |
| Construction On-Road Vehicles | 621 | 3,413 |
| Construction Off-Road Equipment | --- | 11,626 |
| Total for Construction | 621 | 15,039 |

Energy consumption during construction is necessary to prevent flooding of the canine training facility. These activities would not cause wasteful, inefficient, and unnecessary consumption of energy or cause a substantial increase in energy demand and the need for additional energy resources.

In addition, CHP activities would not conflict with any of the goals, policies, or implementation actions identified in the applicable energy plans, such as the 2018 Integrated Energy Policy Report Update and the CHP Sustainability Roadmap, because the Proposed Project would be completed as efficiently as possible and would not create new energy demand. Thus, the Proposed Project would not conflict with any plans relating to renewable energy or energy efficiency. Therefore, this impact would be **less than significant**.

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# 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. | ☐ | ☐ | ☐ | ☒ |
| ii. Strong seismic ground shaking? | ☐ | ☐ | ☐ | ☒ |
| iii. Seismic-related ground failure, including liquefaction? | ☐ | ☐ | ☐ | ☒ |
| iv. Landslides? | ☐ | ☐ | ☐ | ☒ |
| b. Result in substantial soil erosion or the loss of topsoil? | ☐ | ☐ | ☒ | ☐ |
| 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 an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |
| 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 waste water? | ☐ | ☐ | ☐ | ☒ |
| f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ☐ | ☒ | ☐ |

## 3.7.1 Regulatory Setting

### *Federal Laws, Regulations, and Policies*

No federal regulations are applicable to geology, soils, and seismicity in relation to the Proposed Project.

### *State Laws, Regulations, and Policies*

#### Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code Section 2621 *et seq*.) was passed to reduce the risk to life and property from surface faulting in California. The Alquist-Priolo Act prohibits construction of most types of structures intended for human occupancy directly on or across the surface traces of active faults and strictly regulates construction in the corridors along active faults (earthquake fault zones). It also defines criteria for identifying active faults, giving legal weight to terms such as "active," and establishes a process for reviewing building proposals in and adjacent to earthquake fault zones. Under the Alquist-Priolo Act, faults are zoned and construction along or across them is strictly regulated if they are "sufficiently active" and "well defined." Before a Project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults.

#### Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (Public Resources Code Sections 2690–2699.6) establishes statewide minimum public safety standards for mitigation of earthquake hazards. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, such as strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act: the State of California is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped seismic hazard zones. In addition, the act addresses expansive soils, settlement, and slope stability. Under the Seismic Hazards Mapping Act, cities and counties may withhold the development permits for a site within a seismic hazard zone until appropriate site-specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans.

#### California Public Resources Code

California Public Resources Code, Section 5097.5 states that "no person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor." As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

## 3.7.2 Environmental Setting

### *Geology*

The Proposed Project site is located in the Sacramento Valley in Yolo County in the Great Central Valley geomorphic province (California Geological Survey [CGS] 2002). The province consists of gently sloping alluvial plains with elevations near sea level. The elevation in the Project area ranges from approximately 12 to 18 feet above sea level (NADV 88). Local geology in the vicinity of the Project area is predominately late-Quaternary river deposit alluvium (USGS 1968). The alluvium deposited in the alluvial fans in the Project area consists of igneous, metamorphic and sedimentary rock parent material (NCRS 2019).

### *Soils*

The soils in the Project area consist of silty clay loam (Sycamore silty clay loam), silt loam (Sycamore silt loam) and sandy loam (Lang sandy loam) (NRCS 2019). These soil units make up the alluvial fans and natural levees adjacent to the Sacramento River. These soils are somewhat poorly drained and generally not prone to erosion; however, they have properties that may result in shrink-swell potential (NRCS 2019). The Project area likely has anthropogenically altered soils due to the urban setting.

### *Seismicity*

Within the Great Central Valley geomorphic province, Yolo County is an area characterized by little seismic activity. There are no Quaternary faults associated with the Project area and it is not identified in an Alquist-Priolo Fault Zone (CGS 2010, 2015). The most proximal potentially active fault to the Project area is the Dunnigan Hills fault, which is located about 25 miles northwest of the Project area (USGS 2017, Yolo County 2009). Therefore, the shaking scenario is low. Although active fault zones are not located near the Project area, seismic risk is not isolated to active faults. The distance of the Project area to known active faults in the region is expected to result in lower levels of shaking less frequently; however, infrequent earthquakes could still cause strong shaking from earthquakes in the Coast Ranges to the west and Sierra Nevada foothills to the east (Yolo County 2009).

#### Landslides

Landslides occur most often along the base of slopes and steep stream banks while slumps may occur on both hills and gently sloping valley areas. The Project area is relatively flat with only minor variations in surface topography. Therefore, there is no risk of landslides in the project area.

#### Liquefaction

Soil liquefaction is a phenomenon that occurs when saturated sandy or silty soils lose strength during cyclic loading, such as caused by earthquakes. During the loss of strength, the soil acquires mobility sufficient to permit both horizontal and vertical movements, essentially behaving like a liquid. The factors known to influence liquefaction potential are soil type and depth, grain size, density, groundwater level, degree of saturation, and both the intensity and duration of ground shaking.

The alluvial deposits within the Proposed Project area may be susceptible to liquefaction due to the saturated soil conditions (NRCS 2019, Yolo County 2009). However, the potential for a shaking scenario where liquefaction could occur is low due to the distance from active fault zones reducing the frequency and intensity of earthquakes (Yolo County 2009).

**Paleontological Resources**

A paleontological resource is defined as fossilized remains of vertebrate and invertebrate organisms, fossil tracks, and plant fossils. In California, paleontological resources are generally observed in sedimentary and metasedimentary deposits. Based on a database query of the University of California Museum of Paleontology (UCMP) in search of paleontological discoveries, no discoveries were listed for Sacramento River and its floodplain in Yolo County (UCMP 2019). The deep horizon of alluvium composed of late Quaternary river-flood deposits potentially reduces the likelihood of paleontological resources to be observed in the Project area. There is a very low likelihood for fossils to occur in this relatively young age of rock.

## 3.7.3 Discussion of Checklist Responses

### a, c, d. Expose people or structures to potential substantial adverse effects associated with seismic activity (including ground shaking, ground failure, liquefaction), landslides, or location on unstable or expansive soils – *No Impact*

The Proposed Project area could be subject to ground shaking as a result of seismic activity on any of a number of distant faults. The alluvium in the Proposed Project area may be prone to liquefaction in the event of an earthquake. The gently sloping topography on the floodplain reduces potential for landslides. The Project would not construct structures that would be exposed to adverse effects associated with seismic activity. There would be no change in exposure of structures to these risks as a result of the Proposed Project.

The Proposed Project does not propose to create any additional facilities which would be permanently or temporarily occupied. In the long term, Project activities would not increase population or development within the Project area. The activities proposed under the Proposed Project are related to improving infrastructure for flood conveyance. These activities would not substantially affect, or be affected by risks related to seismic events or other geologic hazards; therefore, there would be **no impact**.

### b. Substantial soil erosion or the loss of topsoil – *Less than Significant*

The Proposed Project would involve ground-disturbing activities including excavation of the drainage system; installation of concrete V-gutters, trench drain, headwall, and pavement; grading to expand the drainage course; construction of a gravel road; demolition activities prior to construction; and construction of a temporary gravel driveway. During construction this may result in temporary erosion from the streambank or sediment loading into the channel. However, the Project would be subject to the NPDES General Construction Permit, which would require preparation and implementation of a SWPPP, including measures to prevent erosion and siltation. As such, impacts associated with erosion and siltation from construction site stormwater discharges would be avoided or minimized.

In the long term, the Proposed Project would have beneficial effects on potential erosion and sedimentation. Channel expansion and improvement of stormwater infrastructure would tend to reduce erosion/sedimentation processes along streambanks and reduce flooding in the long-term. Therefore, the Proposed Project would not substantially affect instream erosion or sedimentation rates. This impact would be **less than significant**.

### 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 would not result in the generation of wastewater, nor involve the construction or modification of any septic tanks or alternative wastewater disposal systems. As such, the Proposed Project would have **no impact** associated with placement of such systems on unsuitable soils in the Proposed Project area.

### f. Destruction of a unique paleontological resource or site or unique geological feature – *Less than Significant*

No fossils have been recorded in the Project vicinity, the majority of Project activities are expected to be confined to the alluvial deposits where the young age of the alluvial material possess a very low likelihood and sensitivity for paleontological resources to be encountered. Although ground disturbance will occur, the urban development and previous land uses likely altered natural soil composition—reducing the likelihood of encountering a paleontological resource. Therefore, potential impacts to unique paleontological resources or geologic features would be considered **less than significant**.

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# 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? | ☐ | ☐ | ☒ | ☐ |
| b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | ☐ | ☐ | ☒ | ☐ |

## 3.8.1 Regulatory Setting

### *Federal Laws, Regulations, and Policies*

At the federal level, USEPA has developed regulations to reduce GHG emissions from motor vehicles and has developed permitting requirements for large stationary emitters of GHGs. On April 1, 2010, USEPA and the NHTSA established a program to reduce GHG emissions and improve fuel economy standards for new model year 2012–2016 cars and light trucks. On August 9, 2011, USEPA and the NHTSA announced standards to reduce GHG emissions and improve fuel efficiency for heavy-duty trucks and buses. In August 2016, USEPA and the NHTSA jointly finalized Phase 2 Heavy-Duty National Program standards to reduce GHG emissions and improve fuel efficiency of medium- and heavy-duty vehicles for model year 2018 and beyond (USEPA 2017). However, some of these standards have been stayed by a court order and USEPA has proposed repealing certain Phase 2 emissions standards (Center for Climate and Energy Solutions 2019).

### *State Laws, Regulations, and Policies*

In recent years, California has enacted several policies and plans to address GHG emissions and climate change. In 2006, the California State Legislature enacted Assembly Bill (AB) 32, the Global Warming Solutions Act, which set the overall goals for reducing California's GHG emissions to 1990 levels by 2020. Senate Bill (SB) 32 codified an overall goal for reducing California's GHG emissions to 40 percent below 1990 levels by 2030. Executive Orders (EOs) S-3-05 and B-16-2012 further extend this goal to 80 percent below 1990 levels by 2050. The CARB has completed rulemaking to implement several GHG emission reduction regulations and continues to investigate the feasibility of implementing additional GHG emission reduction regulations. These include the low carbon fuel standard, which reduces GHG emissions associated with fuel usage, and the Renewable Portfolio Standard (RPS), which requires electricity suppliers to increase the amount of electricity generated from renewable sources to certain thresholds by various deadlines. In 2018, SB 100 updated the RPS to require 50 percent renewable resources by the end 2026, 60 percent by the end of 2030, and 100 percent renewable energy and zero carbon resources by 2045. EO B-55–18 signed by

Governor Jerry Brown set a goal of statewide carbon neutrality by 2045 and net negative emissions thereafter.

CARB approved the First Update to the AB 32 Scoping Plan on May 22, 2014 (CARB 2014). This update defines climate change priorities for the next 5 years and also sets the groundwork to reach long-term goals set forth in EOs S-3-05 and B-16-2012. The update also highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals and evaluates how to align the state's longer term GHG reduction strategies with other state policy priorities for water, waste, natural resources, clean energy, transportation, and land use. CARB released and adopted a 2017 Scoping Plan Update (CARB 2017a) to reflect the 2030 target set by EO B-30-15 and codified by SB 32 (CARB 2017a, CARB 2017b).

As described in more detail in Section 3.6, "Energy," CHP's Sustainability Roadmap describes multiple goals relating to decreasing energy consumption and GHG emissions.

### *Local Laws, Regulations, and Policies*

Local laws, regulations, and policies are provided in Appendix A. YSAQMD has not established a numerical threshold for GHG emissions, or any plans targeting the reduction of GHG emissions. When the local air district does not have a numeric threshold, it is acceptable for the lead agency to choose to use thresholds from other air districts. The Sacramento Metropolitan Air Quality Management District (SMAQMD) and Bay Area Air Quality Management District (BAAQMD) have GHG thresholds of 1,110 MT $CO_2e$/yr (metric tons of carbon dioxide equivalents per year) (SMAQMD 2015, BAAQMD 2017). SMAQMD's threshold applies to construction and operations, while BAAQMD's threshold is for operations only.

## 3.8.2 Environmental Setting

Climate change results from the accumulation in the atmosphere of GHGs, which are produced primarily by the burning of fossil fuels for energy. Because GHGs (carbon dioxide [$CO_2$], methane, and nitrous oxide) persist and mix in the atmosphere, emissions anywhere in the world affect the climate everywhere in the world. GHG emissions are typically reported in terms of carbon dioxide equivalents ($CO_2e$) which converts all GHGs to an equivalent basis taking into account their global warming potential compared to $CO_2$.

Anthropogenic (human-caused) emissions of GHGs are widely accepted in the scientific community as contributing to global warming. Temperature increases associated with climate change are expected to adversely affect plant and animal species, cause ocean acidification and sea level rise, affect water supplies, affect agriculture, and harm public health.

Global climate change is already affecting ecosystems and societies throughout the world. Climate change adaptation refers to the efforts undertaken by societies and ecosystems to adjust to and prepare for current and future climate change, thereby reducing vulnerability to those changes. Human adaptation has occurred naturally over history; people move to more suitable living locations, adjust food sources, and more recently, change energy sources. Similarly, plant and animal species also adapt over time to changing conditions; they migrate or alter behaviors in accordance with changing climates, food sources, and predators.

Many national, as well as local and regional, governments are implementing adaptive practices to address changes in climate, as well as planning for expected future impacts from climate change. Some examples of adaptations that are already in practice or under consideration include conserving water and minimizing runoff with climate-appropriate landscaping, capturing excess rainfall to minimize flooding and maintain a constant water supply through dry spells and droughts, protecting valuable resources and infrastructure from flood damage and sea level rise, and using water-efficient appliances.

In 2017, total California GHG emissions from routine emitting activities were 424 million metric tons of carbon dioxide equivalents (MMT $CO_2e$) (CARB 2019). This represents a decrease of 5 MMT $CO_2e$ from 2016 and a 14 percent reduction compared to peak levels reached in 2004. Declining emissions from the electricity sector were responsible for much of the reduction due to growing zero-GHG energy generation sources. In 2017, the transportation sector of the California economy was the largest source of emissions, accounting for approximately 40 percent of the total emissions (CARB 2019).

In 2016, CHP's annual GHG emissions totaled 85,006 MT $CO_2e$ with vehicles accounting for roughly 90 percent of those emissions (CHP 2017). As described in more detail in Section 3.6, "Energy," the CHP Academy consumes approximately 16 percent of the total energy used by CHP buildings. Multiple projects are underway to reduce the CHP Academy's GHG emissions by improving energy efficiency and increasing its use of renewable energy.

### 3.8.3 Discussion of Checklist Responses

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

The Proposed Project would generate GHG emissions during construction activities. Construction-related GHG emissions would result from the combustion of fossil-fueled construction equipment, material hauling, and worker trips. These emissions were estimated using CalEEMod version 2016.3.2 (for detailed assumptions see Appendix C, Air Quality and Greenhouse Gases). The Proposed Project's construction-related GHG emissions are estimated at 150 metric tons of carbon dioxide equivalents (MT $CO_2e$). The Proposed Project would not include any maintenance or operation-related activities, or related GHG emissions. The YSAQMD has not established a numerical threshold of significance for GHG emissions, however the SMAQMD has established a threshold of 1,100 MT CO2e/yr for both construction and operational activities. The Proposed Project's emissions would be substantially less than the SMAQMD's significance threshold.

Project emissions would not be anticipated to result in a significant impact to global climate change or impede the goals of AB 32 or SB 32. Since the Proposed Project's net emissions would be minimal and below the quantitative thresholds of neighboring air districts, the impact would be **less than significant**.

### b. Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases — *Less than Significant*

The Proposed Project involves grading, demolition, and paving activities to reduce flooding impacts at the CHP Academy. It does not include construction of any new buildings or residences. The State of California has implemented AB 32, SB 32, and multiple EOs to reduce GHG emissions. The Proposed Project does not pose any conflict with the most recent list of CARB's early action strategies, nor is it one of the sectors at which measures are targeted. The First Update to the AB 32 Scoping Plan and California's 2017 Climate Change Scoping Plan (CARB 2014, CARB 2017a) did not mention similar projects as a specific target for additional strategies. The Proposed Project would not be required to report emissions to CARB and does not conflict with CHP's Sustainability Roadmap. Therefore, emissions generated by the Proposed Project would not be expected to have a substantial contribution to the ongoing impact on global climate change. While local plans, policies and regulations do not apply to the State, the location of the Project site is in line with local general plan policies regarding land use, transportation, air quality planning goals, and local GHG reduction plans. For these reasons, the Proposed Project would not conflict with AB 32, SB 32, the local general plan, or a local climate action plan. Therefore, this impact would be **less than significant**.

# 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? | ☐ | ☐ | ☒ | ☐ |
| 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? | ☐ | ☒ | ☐ | ☐ |
| 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? | ☐ | ☒ | ☐ | ☐ |
| d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment? | ☐ | ☒ | ☐ | ☐ |
| 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? | ☐ | ☐ | ☐ | ☒ |
| f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☒ | ☐ |
| g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires? | ☐ | ☐ | ☒ | ☐ |

## 3.9.1 Regulatory Setting

Hazardous materials and hazardous wastes are subject to extensive federal, state, and local regulations to protect public health and the environment. These regulations provide definitions of hazardous materials; establish reporting requirements; set guidelines for handling, storage, transport, and disposal of hazardous wastes; and require health and safety

provisions for workers and the public. The major federal, state, and regional agencies enforcing these regulations are the USEPA; the Occupational Safety and Health Administration (OSHA); California Department of Toxic Substances Control (DTSC); California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA); California Governor's Office of Emergency Services (Cal OES); SWRCB; Central Valley RWQCB; and the Sacramento Metropolitan Air Quality Management District (SMAQMD).

## *Federal Laws, Regulations, and Policies*

### Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also called the Superfund Act; 42 USC § 9601 *et seq.*) is intended to protect the public and the environment from the effects of past hazardous waste disposal activities and new hazardous material spills. Under CERCLA, USEPA has the authority to seek the parties responsible for hazardous materials releases and to ensure their cooperation in site remediation. CERCLA also provides federal funding (through the "Superfund") for the remediation of hazardous materials contamination. The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499) amends some provisions of CERCLA and provides for a Community Right-to-Know program.

### Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) of 1976 (42 USC § 6901 *et seq.*), as amended by the Hazardous and Solid Waste Amendments of 1984, is the primary federal law for the regulation of solid waste and hazardous waste in the United States. These laws provide for the "cradle-to-grave" regulation of hazardous wastes, including generation, transportation, treatment, storage, and disposal. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed of.

USEPA has primary responsibility for implementing RCRA, but individual states are encouraged to seek authorization to implement some or all RCRA provisions. California received authority to implement the RCRA program in August 1992. DTSC is responsible for implementing the RCRA program in addition to California's own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law.

### Energy Policy Act of 2005

Title XV, Subtitle B of the Energy Policy Act of 2005 (the Underground Storage Tank Compliance Act of 2005) contains amendments to Subtitle I of the Solid Waste Disposal Act, the original legislation that created the Underground Storage Tank (UST) Program. As defined by law, a UST is "any one or combination of tanks, including pipes connected thereto, that is used for the storage of hazardous substances and that is substantially or totally beneath the surface of the ground." In cooperation with USEPA, SWRCB oversees the UST Program. The intent is to protect public health and safety and the environment from releases of petroleum and other hazardous substances from tanks. The four primary program elements include leak prevention (implemented by Certified Unified Program Agencies [CUPAs], described in more detail below), cleanup of leaking tanks, enforcement of UST requirements, and tank integrity testing.

### Occupational Safety and Health Administration

OSHA is responsible at the federal level for ensuring worker safety. OSHA sets federal standards for implementation of workplace training, exposure limits, and safety procedures for the handling of hazardous substances (as well as other hazards). OSHA also establishes criteria by which each state can implement its own health and safety program.

## *State Laws, Regulations, and Policies*

### Safe Drinking Water and Toxic Enforcement Act of 1986 – Proposition 65

The Safe Drinking Water and Toxic Enforcement Act of 1986, more commonly known as Proposition 65, protects the state's drinking water sources from contamination with chemicals known to cause cancer, birth defects, or other reproductive harm. Proposition 65 also requires businesses to inform the public of exposure to such chemicals in the products they purchase, in their homes or workplaces, or that are released into the environment. In accordance with Proposition 65, the California Governor's Office publishes, at least annually, a list of such chemicals. OEHHA, an agency under the California Environmental Protection Agency (CalEPA), is the lead agency for implementation of the Proposition 65 program. Proposition 65 is enforced through the California Attorney General's Office; however, district and city attorneys and any individual acting in the public interest may also file a lawsuit against a business alleged to be in violation of Proposition 65 regulations.

### The Unified Program

The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency response programs. CalEPA and other state agencies set the standards for their programs, while local governments (CUPAs) implement the standards. For each county, the CUPA regulates/oversees the following:

- Hazardous materials business plans;
- California accidental release prevention plans or federal risk management plans;
- The operation of USTs and ASTs;
- Universal waste and hazardous waste generators and handlers;
- On-site hazardous waste treatment;
- Inspections, permitting, and enforcement;
- Proposition 65 reporting; and
- Emergency response.

### California Occupational Safety and Health Administration

Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations in California. Cal/OSHA regulations pertaining to the use of hazardous materials in the workplace (CCR Title 8) include requirements for safety training, availability of safety equipment, accident and illness prevention programs, warnings about exposure to hazardous substances, and preparation of emergency action and fire prevention plans. Hazard communication program regulations that are enforced by Cal/OSHA require workplaces to maintain procedures for identifying and labeling hazardous substances, inform workers

about the hazards associated with hazardous substances and their handling, and prepare health and safety plans to protect workers at hazardous waste sites. Employers must also make material safety data sheets available to employees and document employee information and training programs. In addition, Cal/OSHA has established maximum permissible RF radiation exposure limits for workers (Title 8 CCR § 5085[b]), and requires warning signs where RF radiation might exceed the specified limits (Title 8 CCR § 5085 [c]).

#### California Department of Forestry and Fire Protection Wildland Fire Management

The Office of the State Fire Marshal and the California Department of Forestry and Fire Protection (CAL FIRE) administer state policies regarding wildland fire safety. Construction contractors must comply with the following requirements in the Public Resources Code during construction activities at any sites with forest-, brush-, or grass-covered land:

- Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (Public Resources Code § 4442).
- Appropriate fire-suppression equipment must be maintained from April 1 to December 1, the highest-danger period for fires (Public Resources Code § 4428).
- On days when a burning permit is required, flammable materials must be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor must maintain the appropriate fire-suppression equipment (Public Resources Code § 4427).
- On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines must not be used within 25 feet of any flammable materials (Public Resources Code § 4431).

#### California Highway Patrol

CHP, along with Caltrans, enforce and monitor hazardous materials and waste transportation laws and regulations in California. These agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads. All motor carriers and drivers involved in transportation of hazardous materials must apply for and obtain a hazardous materials transportation license from CHP.

## 3.9.2 Environmental Setting

### *Existing Hazards and Hazardous Materials*

No environmental site assessments were available for the Project site. According to the SWRCB (GeoTracker) and the DTSC (EnviroStor) databases, no potential or confirmed state or federal Superfund site is located within or immediately adjacent to the Project site. However, multiple agency-listed sites are present (either on or within a 1-mile radius of) on the Project site that have been affected by unauthorized material releases. This includes a former leaking 10,000-gallon gasoline underground storage tank (LUST) approximately 285 feet west of Channel CH2, just south of Peterson Place, which resulted in soil and groundwater contamination in 2001 (SWRCB 2015a, Kleinfelder 2017). A 2017 Kleinfelder well installation and groundwater monitoring report states that a shallow monitoring well at the site shows concentrations of total petroleum hydrocarbon-gas at 380 microgram per liter (ug/L), methyl tert-butyl ether (MTBE) at 2,000 ug/L, and tert-amyl methyl ether (TAME) at

93 ug/L (Kleinfelder 2017). The report also states that deep monitoring wells at the middle of Channel Ch2 found concentrations of MTBE at 190 ug/L and TAME at 6.1 ug/L, and concentrations of MTBE at 14 ug/L at Channel CH2's southern terminus (SWRCB 2015a, Kleinfelder 2017).

Additionally, there is a closed LUST cleanup site approximately 10 feet west of Channel CH2, approximately 350 feet north of Reed Avenue, and a permitted UST located in the center of the CHP Academy campus, approximately 0.2 mile south of the canine training facility. Finally, there is an open cleanup site at the Bryte Bend Water Treatment Plant approximately 0.3 mile southeast of the canine training facility, and a closed DTSC cleanup site previously used by the U.S. Army for river and harbor access 0.25 mile northeast of the site, along North Harbor Boulevard (SWRCB 2015a).

### *Airports*

No public airports or private airstrips are located within a 2-mile radius of the Proposed Project. The nearest airport is the Sacramento International Airport, approximately 6 miles north of the Project site. However, the Proposed Project is within the Airport's Influence Area, which is divided into two subareas known as Referral Areas 1 and 2. Referral Area 1 encompasses locations where noise, safety, and wildlife represent compatibility concerns, while Referral Area 2 includes locations where airspace protection (other than wildlife hazards) and/or overflight are compatibility concerns, but not noise or safety (Sacramento Area Council of Governments 2013). The Proposed Project is located in Referral Area 2.

### *Wildfire Hazards*

The area surrounding the Project site includes the Sacramento Bypass Wildlife Area and agricultural lands to the north, Yolo Bypass to the west, commercial development and residential neighborhoods to the south, and the Sacramento River and City of Sacramento to the east. The Proposed Project is not located in a fire hazard severity zone (Yolo County 2018); however, a vegetated strip of land located directly north and northeast of the CHP Academy, as well as the Sacramento Bypass Wildlife Area also located north, are in a Local Responsibility Area within a fire hazard severity zone designated as moderate by CAL FIRE (CAL FIRE 2007). The nearest fire station is West Sacramento Fire Department's Fire Station 44, located at 905 Fremont Boulevard, West Sacramento CA 95605 (approximately 1.8 miles southeast of the Project site) approximately 7 minutes driving time from the Project site.

### *Sensitive Receptors*

Sensitive receptors include hospitals, schools, daycare facilities, elderly housing, and convalescent facilities where the occupants are more susceptible than the general population to the adverse effects of exposure to toxic chemicals, pesticides, and other pollutants. Extra care must be taken when dealing with contaminants and pollutants near areas recognized as sensitive receptors.

The Proposed Project runs along the west side of the main campus buildings of the CHP Academy itself, which operates 24 hours a day/seven days a week year-round, and provides training to CHP and other law enforcement officials. The distance from the Proposed Project to campus facilities ranges from approximately 100 to 600 feet. Additionally, a hotel, several

residences, and two churches are located within a 1-mile radius of the areas associated with the Project's drainage improvements. The nearest sensitive receptor to the site is the Hampton Inn and Suites (800 Stillwater Road), approximately 0.25 mile southeast of the southern terminus of Channel Ch2. Additionally, there are residences along Harbor Boulevard south of River Road, approximately 0.55 mile southeast of the canine training facility. Other nearby sensitive receptors include three churches: Christ Holy Sanctified Church (1608 Lisbon Avenue), approximately 0.82 mile southeast of the canine training facility; Joy Christian Ministries (825 Sunset Avenue), approximately 0.88 mile southeast of the canine training facility; and Russian Orthodox Church of the Holy Myrrhbearing Women (833 Water Street), approximately 0.94 mile southeast of the canine training facility.

## 3.9.3 Discussion of Checklist Responses

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

The Proposed Project includes improvements to an earthen drainage channel (Channel CH2) and the installation of ditches, erosion control, concrete V-gutters, and a trench drain around a canine training facility. Once in operation, the Proposed Project would not require the use or storage of hazardous items and materials that could pose a risk to human health and safety and the environment.

However, construction activities for the Proposed Project would require on-site handling of hazardous materials, such as fuels, lubricating fluids, and solvents for use with construction equipment. Accidental spills or improper use, storage, transport, or disposal of these hazardous materials could result in a public hazard or the transport of hazardous materials (particularly during storm events) to the underlying soils and groundwater.

Although these hazardous materials could pose a hazard as described above, Proposed Project activities would be required to comply with extensive regulations so that substantial risks would not result. All storage, handling, and disposal of these materials would be done in accordance with regulations established by DTSC, USEPA, OSHA, Cal OES, CUPA, and Cal/OSHA.

Additionally, as described in Section 3.10, "Hydrology and Water Quality," a SWPPP would be prepared for the Proposed Project as part of its compliance with applicable NPDES permits. The SWPPP would include appropriate spill prevention and other construction BMPs to prevent or minimize potential for releases of hazardous materials or risks to workers during routine activities.

As a result of compliance with the applicable regulations as described above, no significant risks would result to construction workers, the public, or the environment from the construction-related transport, use, storage, or disposal of hazardous materials. Therefore, this impact would be **less than significant**.

### b, d 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 with Mitigation.*

The Proposed Project would alleviate localized flooding at a canine training facility and improve overall site drainage. Thus, during operation, the Proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

However, as described above in Section 3.9.2, multiple unauthorized hazardous material release sites are present within a 1-mile radius of the Project site. One of these agency-listed release sites is a former LUST included on the Cortese list of hazardous materials sites compiled by DTSC in accordance with Government Code § 65962.5 (SWRCB 2015b), and has contributed to soil and groundwater contamination at the Project site (Kleinfelder 2017). The likelihood that any of the other agency-listed sites have affected the soil or groundwater beneath the Project site is minimal due to their relative location, type of hazardous waste release, and intervening distance from the Project site.

Construction activities associated with the Proposed Project, including clearing, grubbing, grading, and soil excavation, have the potential to come into contact with existing sources of contamination if any are present. A Well Installation and Groundwater Monitoring Report (Kleinfelder 2017) detected amounts of MTBE and TAME in soils at the Project site (i.e., along the Channel CH2), and MTBE was detected at levels above RWQCB environmental screening levels. Therefore, soil excavation activities would have the potential to expose construction workers or nearby sensitive receptors to existing on-site hazardous materials, and could create a hazard through upset or accident conditions involving excavated materials. With implementation of MM-HAZ-1 (Management of Unknown Hazardous Materials), this impact would be reduced to a less than significant level.

The Proposed Project's construction would require the use, transport, and disposal of hazardous materials; however, as detailed above, compliance with the applicable regulations and implementation of **Mitigation Measure HAZ-1**, a SWPPP, and NPDES permit BMPs would ensure that no substantial risks would result to construction workers, the public, or the environment from reasonably foreseeable upset or accident conditions involving the use of hazardous materials for the Proposed Project's construction activities. Therefore, this impact would be **less than significant with Mitigation Measure-HAZ-1**.

**Mitigation Measure HAZ-1: Management of Unknown Hazardous Materials.**

If hazardous materials, wastes, or suspected soil contamination is encountered during construction of the Proposed Project, project activities in that area should stop until appropriate health and safety procedures are implemented. CHP and/or its contractors shall be required to conduct an investigation to determine the composition of the encountered material, including sampling by an OSHA-trained individual and testing at a certified laboratory. In the event that soils to be excavated are found to be contaminated, the excavated soil shall be treated as hazardous materials and properly managed, removed, reported, and disposed of in compliance with state and federal regulations. Workers will be provided with adequate personal

protective equipment to prevent unsafe exposure during handling and disposal. Effective dust suppression procedures will be used in the immediate construction area to reduce airborne emissions of contaminants and reduce the risk of exposure to workers and the public.

### 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—*Less than Significant with Mitigation*

The Proposed Project is not within one-quarter mile of an existing or proposed primary or secondary school. The nearest schools are Bryte Elementary School and West Sacramento Independent Study, both of which are approximately 1.25 miles east of the Project site. However, the Proposed Project is located on the CHP Academy campus, within approximately 0.1 mile of campus buildings and facilities. Compliance with applicable federal and state regulations, a SWPPP, and NPDES permit BMPs would ensure that cadets or other law enforcement officials training at the Academy would not be exposed to hazardous emissions or acutely hazardous materials, substances or waste from the Proposed Project's construction activities. In addition, implementation of MM-HAZ-1 would ensure that no substantial risks would result to construction workers, the public, or the environment from reasonably foreseeable upset of unknown hazardous materials during construction grading. Therefore, this impact would be **less than significant with mitigation**.

### e. Located within an airport land use plan area or, where such a plan has not been adopted, be within 2 miles of a public airport or public use airport and result in a safety hazard or excessive noise for people residing or working in the project area—*No impact*

The Project site is located within the Sacramento International Airport's Influence Area, Referral Area 2. Actions that could interfere with aviation operations in Referral Area 2 would include structures or objects exceeding height thresholds outlined in Part 77 of the Federal Aviation Administration regulations, projects with the potential to create electrical or visual hazards to aircraft in flight, and projects having the potential to create a thermal plume extending to an altitude where aircraft fly (Sacramento Area Council of Governments 2013). The Proposed Project includes improvements associated with a drainage channel and would not involve construction of any buildings or structures, and would not create electrical or visual hazards, or thermal plumes. Therefore, the Proposed Project would not result in a safety hazard or excessive noise for people residing or working in the Project area, and there would be **no impact**.

### f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan—*Less than Significant*

The Proposed Project would alleviate localized flooding at a canine training facility and improve overall site drainage. Thus, during operation, the Proposed Project would not result in an increase in trips to and from the Project site that could impair the implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Construction-related employee vehicle trips and truck trips for the Proposed Project could potentially increase traffic on Reed Avenue over the duration of the construction period, which could impair the ability of emergency responders to reach their destinations. However, construction-related traffic would be temporary and only a limited number of employee vehicles and trucks would travel to and from the Project site on a daily basis. Access to the Project site and surrounding properties would be maintained at all times for fire and emergency response vehicles. Therefore, the impact on emergency response from construction-related activities associated with the Proposed Project would be **less than significant**.

### g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires—*Less than Significant*

The area surrounding the Project site to the north and west primarily consists of the Yolo Bypass, the Sacramento Bypass Wildlife Area, and agricultural lands. The Sacramento River lies to the east while areas to the south are mostly urban and developed. Although the Proposed Project is not located in a Fire Hazard Severity Zone Local Responsibility Area, and there is a low risk of wildfire within the Proposed Project (Yolo County 2018), a vegetated strip of land bordering a portion of the CHP Academy to the north and northeast, as well as the Sacramento Bypass Wildlife Area also located to the north, are located in Local Responsibility Areas within fire hazard severity zones designated as moderate. There are shrubs, trees, and grassy vegetation areas on the CHP Academy site, and the Proposed Project's construction equipment within or near such areas could potentially present an ignition source and fire hazard; however, the Proposed Project would be required to comply with Public Resources Code requirements for construction activities at sites covered by trees, brush, or grass (see the discussion in Section 3.9, "Hazards and Hazardous Materials – Regulatory Setting," under "California Department of Forestry and Fire Protection Wildland Fire Management"). Compliance with these measures would minimize the potential to expose people or structures to a significant risk of wildland fires.

Additionally, the Proposed Project would not include the storage or operational use of flammable materials on site that could pose a potential fire risk. Therefore, the impact from construction- and operation-related activities associated with the Proposed Project would be **less than significant**.

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# 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? | ☐ | ☐ | ☒ | ☐ |
| b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | ☐ | ☐ | ☒ | ☐ |
| 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 that would: | ☐ | ☐ | ☒ | ☐ |
| i. result in substantial erosion or siltation on- or off-site; | ☐ | ☐ | ☒ | ☐ |
| ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; | ☐ | ☐ | ☒ | ☐ |
| 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 | ☐ | ☐ | ☒ | ☐ |
| iv. impede or redirect flood flows? | ☐ | ☐ | ☒ | ☐ |
| d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | ☐ | ☐ | ☒ | ☐ |
| e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | ☐ | ☐ | ☐ | ☒ |

## 3.10.1 Regulatory Setting

### *Federal Laws, Regulations, and Policies*

#### Clean Water Act

CWA is the primary federal law that protects the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. Key sections pertaining to water quality regulation for the hydrology and water quality impact evaluation are CWA § 303, § 401, § 402, and § 404.

#### Section 303(d)—Listing of Impaired Water Bodies

Under CWA § 303(d), states are required to identify "impaired water bodies" (i.e., those not meeting established water quality standards), identify the pollutants causing the impairment, establish priority rankings for waters on the list, and develop a schedule for the development of control plans to improve water quality. USEPA then approves the state's recommended list of impaired waters or adds and/or removes waterbodies.

#### Section 401—State Certification of Water Quality

CWA § 401 requires an evaluation of water quality when a proposed activity requiring a federal license or permit could result in a discharge to waters of the United States. In California, USEPA has delegated the authority to issue water quality certifications to SWRCB and the RWQCBs. Each RWQCB is responsible for implementing § 401 in compliance with the CWA and that region's water quality control plan (also known as a Basin Plan). Applicants for a federal license or permit to conduct activities that might result in the discharge to waters of the United States must also obtain a § 401 water quality certification to ensure that any such discharge would comply with the applicable provisions of the CWA.

#### Section 402—NPDES Permits for Stormwater Discharge

CWA § 402 regulates stormwater discharges to surface waters through the NPDES, which is officially administered by USEPA. In California, USEPA has delegated its authority to the SWRCB, which, in turn, delegates implementation responsibility to the nine RWQCBs, as discussed below in reference to the Porter-Cologne Water Quality Control Act.

The NPDES program provides for both general (those that cover a number of similar or related activities) and individual (activity- or project-specific) permits.

**General Permit for Construction Activities**: Most construction projects that disturb 1.0 or more acre of land are required to obtain coverage under SWRCB's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ). The General Permit requires that the applicant file a public notice of intent to discharge stormwater and prepare and implement a SWPPP. The SWPPP must include a site map and a description of the proposed construction activities, demonstrate compliance with relevant local ordinances and regulations, and present a list of BMPs that will be implemented to prevent soil erosion and protect against discharge of sediment and other construction-related pollutants to surface waters. Permittees are further required to monitor construction activities and report compliance to ensure that BMPs are correctly implemented and are effective in controlling the discharge of construction-related pollutants.

**Municipal Stormwater Permitting Program**: SWRCB regulates stormwater discharges from municipal separate storm sewer systems (MS4s) through its Municipal Storm Water Permitting Program (SWRCB 2019). Permits are issued under two phases depending on the size of the urbanized area/municipality. Phase I MS4 permits are issued for medium (population between 100,000 and 250,000 people) and large (population of 250,000 or more people) municipalities, and are often issued to a group of co-permittees within a metropolitan area. Phase I permits have been issued since 1990. Beginning in 2003, SWRCB began issuing Phase II MS4 permits for smaller municipalities (population less than 100,000).

The Proposed Project is located in the City of West Sacramento and is covered under the Phase II MS4 permit (Order No. 2013-0001-DWQ, General Permit No. CAS000004), which requires the City to implement a stormwater management program to prevent and eliminate stormwater pollution to the maximum extent practicable. Additionally, Phase II MS4s must require certain new development and applicable redevelopment projects to incorporate post-construction stormwater control measures that include low-impact development and hydromodification techniques (City of West Sacramento 2014). This permit also includes total maximum daily load (TMDL) provisions designed to ensure that permittees achieve waste load allocations (WLAs) and meet other requirements of TMDLs covering receiving waters impacted by the permittees' MS4 discharges. West Sacramento is covered under the Delta TMDL to reduce mercury discharges, as well as the Sacramento and San Joaquin Delta TMDL to reduce diazinon and chlorpyrifos runoff (SWRCB 2013).

### Section 404—Permitting Discharges of Dredge or Fill Material

CWA Section 404 regulates the discharge of dredged and fill materials into waters of the U.S., which include all navigable waters, their tributaries, and some isolated waters, as well as some wetlands adjacent to the aforementioned waters (33 CFR Section 328.3). Areas typically not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial waterbodies such as swimming pools, and water-filled depressions (33 CFR Part 328). Areas meeting the regulatory definition of waters of the U.S. are subject to the jurisdiction of USACE under the provisions of CWA Section 404. Construction activities involving placement of fill into jurisdictional waters of the U.S. are regulated by USACE through permit requirements. No USACE permit is effective in the absence of state water quality certification pursuant to Section 401 of the CWA.

### Federal Emergency Management Agency

FEMA produces flood insurance rate maps that identify special flood hazard areas. The maps further classify these areas into "zones" that broadly characterize the potential risk of an area being inundated by a 100-year or 500-year flood in any given year.

## *State Laws, Regulations, and Policies*

### Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (known as the Porter–Cologne Act), passed in 1969, dovetails with CWA (see discussion of the CWA above). It established the SWRCB and divided the state into nine regions, each overseen by a RWQCB. The SWRCB is the primary state agency responsible for protecting the quality of the state's surface water and groundwater supplies; however, much of SWRCB's daily implementation authority is delegated to the nine RWQCBs, which are responsible for implementing CWA §§ 401, 402,

and 303[d]. In general, SWRCB manages water rights and regulates statewide water quality, whereas RWQCBs focus on water quality within their respective regions.

The Porter–Cologne Act requires RWQCBs to develop water quality control plans (also known as basin plans) that designate beneficial uses of California's major surface water bodies and groundwater basins and establish specific narrative and numerical water quality objectives for those waters. Beneficial uses represent the services and qualities of a waterbody (i.e., the reasons that the waterbody is considered valuable). Water quality objectives reflect the standards necessary to protect and support those beneficial uses. Basin plan standards are primarily implemented by regulating waste discharges so that water quality objectives are met.

The Project site is located in the Valley Putah-Cache Hydrologic Unit, Lower Putah Creek Hydrologic Area and is under the jurisdiction of the Central Valley RWQCB (Central Valley RWQCB 1986).

#### Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA), passed in 2014, became law in 2015 and created a legal and policy framework to locally manage groundwater sustainably. SGMA allows local agencies to customize groundwater sustainability plans to their regional economic and environmental conditions and needs, and establish new governance structures, known as Groundwater Sustainability Agencies (GSAs). SGMA requires that a groundwater sustainability plan (GSP) be adopted for high and medium priority groundwater basins in California by 2020 for basins with critical overn. Low and very low priority basins are not required to adopt GSPs. GSPs are intended to facilitate the use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results (e.g., chronic lowering of groundwater levels).

The Sacramento Valley Basin – Yolo Subbasin, which includes the Project site, is designated as a high priority basin under SGMA (California Department of Water Resources [DWR] 2019). A number of municipalities and public agencies, including West Sacramento, formed the Yolo Subbasin GSA in 2017 and are developing a GSP to manage the basin (DWR 2018).

## 3.10.2 Environmental Setting

### *Regional Setting and Climate*

The Proposed Project site is located southwest of North Harbor Boulevard and the Sacramento River, west of Interstate 80 and directly north of Reed Avenue within the CHP Academy campus in West Sacramento, in Yolo County, California. The Proposed Project site is situated in the Sacramento Valley, which occupies the northern portion of California's Central Valley and stretches nearly 150 miles from the City of Sacramento (immediately east of the Proposed Project) northward to the City of Redding (Northern California Water Association 2014), and is bounded by the Sierra Nevada on the east and the Coast Range on the west. The Proposed Project traverses through land that contains shrubs, grasses, and trees, and occurs along an earthen drainage channel which forms a slight depression on the property. Surface water drainage appears to be by sheet flow along the existing ground contours toward the channel.

The climate of the Project area is characterized by mild winters with moderate precipitation and hot summers that are typically dry (DWR 2015). Average temperatures range from the high 50s °F to the low 90s °F in the summer and high 30s °F to mid-50s °F in the winter (Western Regional Climate Center 2019). Average annual rainfall in West Sacramento is approximately 16 inches, of which 90 percent occurs between November and April (City of West Sacramento 2016b).

### *Surface Water Hydrology and Quality*

The Project site is situated in the Sacramento Hydrologic Basin, specifically within the Valley Putah-Cache Hydrologic Unit. The closest surface waters to the Proposed Project site are the Sacramento River, approximately 1,300 feet northeast of the Project site, and Channel RAI (also known as the northwestern portion of Delta Waterways), approximately 3,650 feet southeast. The Sacramento River is adjacent to North Harbor Boulevard, which is located along the northeast perimeter of the CHP Academy campus. The Sacramento River joins the American River approximately 2.2 miles east of the Proposed Project. Channel RAI runs the western perimeter of the campus, before it flows into the bypasses.

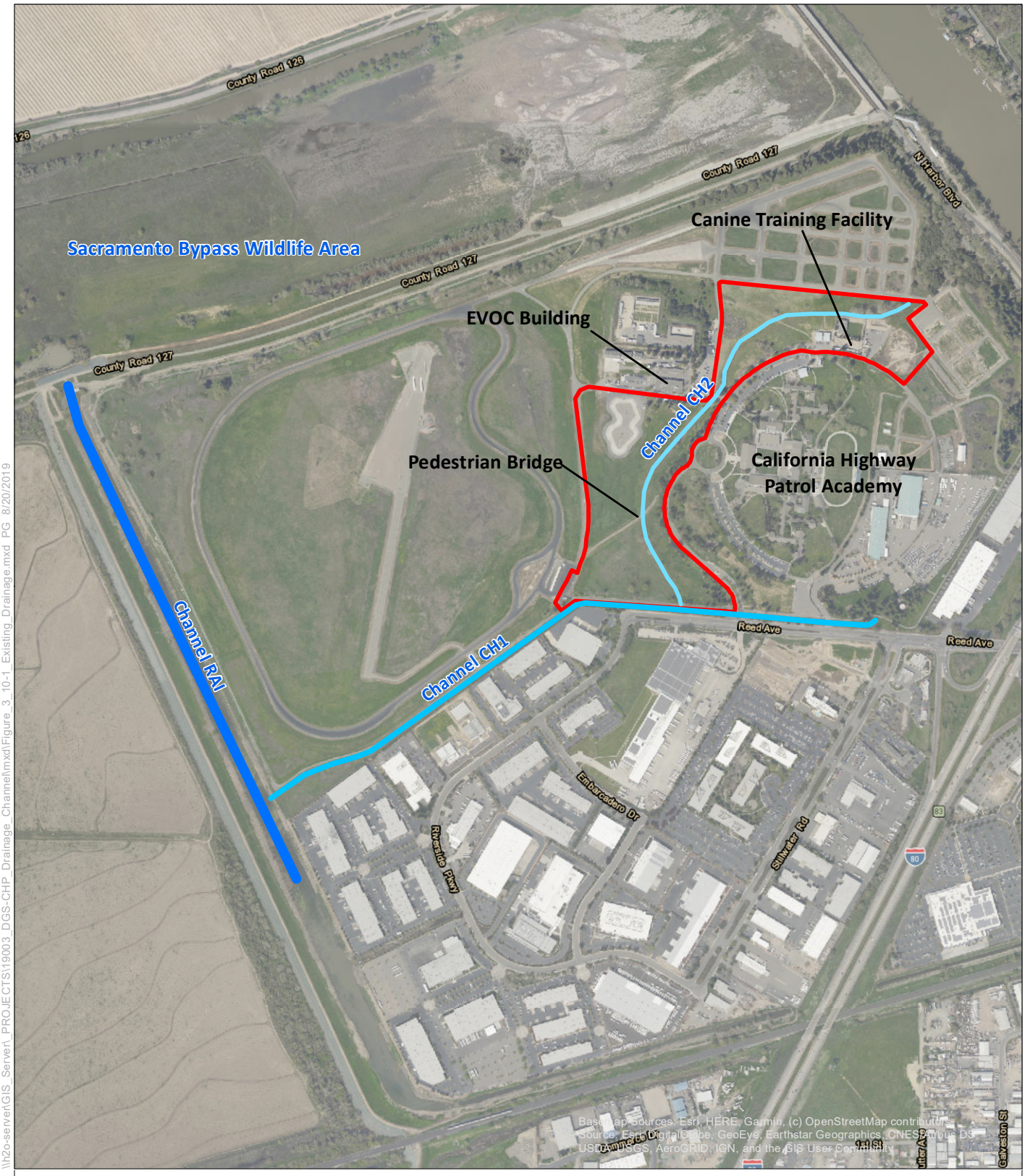
Drainage improvements will be implemented along Channel CH2, which begins directly northeast of the canine facility and then traverses along the northern border of the canine training facility, and continues heading west through undeveloped land owned by the CHP, eventually heading south and terminating at Channel CH1 at Reed Avenue (see **Figure 3.10-1**).

The portion of the Sacramento River near the Project site is listed on the CWA 303(d) list of impaired water body segments for chlordane, DDT, dieldrin, mercury, PCBs, and toxicity (SWRCB 2017). Channel RAI (northwestern portion of Delta Waterways) is listed as impaired for chlorpyrifos, DDT, diazinon, electrical conductivity, Group A pesticides, invasive species, mercury, toxicity (SWRCB 2017).

### *Stormwater*

The Project site consists of areas that are relatively flat and contain shrubs, trees, and grassy vegetation. Channel CH2 also crosses through two unmaintained gravel-paved access roads, and under an asphalt access road via a culvert, and existing pedestrian bridge. An existing 8-inch culvert at the southeast corner of the canine training facility (to be replaced by a 12-inch-wide trench drain) as well as existing 15-inch and 12-inch culverts on the northwest and west side of the canine training facility (culverts to be removed), currently convey runoff to Channel CH2. Additionally, a 48-inch culvert located at Peterson Place adjacent to the EVOC also conveys runoff to the channel; this culvert will be replaced by a new box culvert.

Surface runoff is generally conveyed to Channel CH2 via culverts or overland flow, which is then conveyed to Channel CH1, located just north of Reed Avenue, immediately west of the Academy's entrance gate. Channel CH1 is a lined channel that runs along the site's southern perimeter and connects to Channel RAI at the southwestern corner of the Academy site. Channel RAI is an open channel that runs the site's western perimeter and ultimately connects to a pump station northwest of the site near Tule Jake Road and the Sacramento Bypass Wildlife Area. From there, flows are conveyed into the bypass (see Figure 3.10-1).

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Project Area

**Figure 3.10-1**
**Existing Site Drainage**

Prepared by:

Horizon WATER and ENVIRONMENT

Prepared for:
California Highway Patrol

N

0 500 1,000
Feet

**CHP Academy Drainage Channel Improvements Project**
**Initial Study/Mitigated Negative Declaration**

### *Groundwater Levels, Flows, and Quality*

The Project site lies above the Sacramento Valley Groundwater Basin, Yolo Subbasin (Groundwater Basin No. 5-21.67). The Yolo Subbasin includes the majority of Yolo County, and is bounded on the east by the Sacramento River, on the west by the Coast Range, on the north by Cache Creek, and on the south by Putah Creek (DWR 2004). The Sacramento Valley Basin is bounded by the foothills of the Sierra Nevada and Cascade Range to the east, the Coast Range to the west, and the Klamath Mountains to the northwest. It is underlain by an extensive alluvial aquifer system covering approximately 3,780,180 acres (DWR 2015).

While groundwater levels in the Yolo Subbasin have been impacted by drought and increased groundwater pumping, long-term trends do not indicate any significant decline in water levels, except in the vicinity of Davis, Woodland, and Dunnigan/Zamora. Subsurface outflow and inflow may occur beneath the Sacramento River to the east within the South and North American subbasins. Subsurface inflow may also occur from the west from out of the Capay Valley Basin. Groundwater quality in the Yolo Subbasin is considered good for both agricultural and municipal uses; however, selenium, boron, and total dissolved solids have been found in high concentrations (DWR 2004).

Since 2001, there have been several investigations at the CHP Academy site to assess soil and groundwater impacts from a former LUST south of the EVOC building, approximately 285 feet west of Channel CH2. The most recent investigations detected concentrations of fuel oxygenates, TAME, and MTBE, in the vicinity of the former LUST and along Channel CH2. MTBE was detected at levels above RWQCB environmental screening levels (Kleinfelder 2017). For additional information, see Section 3.9, "Hazards and Hazardous Materials."

Depth-to-groundwater at monitoring wells south of the EVOC building ranged from approximately 11 feet below ground surface (bgs) to 13 bgs. Groundwater in this area is estimated to generally flow northeast toward the EVOC parking lot and the upper portion of Channel CH2. Depth-to-groundwater at a monitoring well along the central-lower portion of Channel CH2 and another at its terminus were measured at approximately 9.5 feet bgs and 6 feet bgs, respectively. The groundwater gradient is almost flat and slightly trends northwest in this area (Kleinfelder 2017).

### *Floodplains and Tsunamis*

The City of West Sacramento, including the Project site, is within the floodplain of the Sacramento River and is surrounded by a system of floodways and levees. The risk of flooding from a levee failure on the Sacramento River is significant given that flood water could spread extensively throughout the city (City of West Sacramento 2016a). The West Sacramento Area Flood Control Agency (WSAFCA) is currently advancing the West Sacramento Levee Improvement Program (WSLIP) to reduce flood risk to the city with a goal of achieving at least a 200-year level of flood protection for the City by 2025 (City of West Sacramento 2017).

The Project site is located within a FEMA-designated Zone X, an area with a 0.1 percent annual chance of flood (i.e., 100-year flood hazard area) (FEMA 1995, City of West Sacramento 2010). Dam failure at a number of dams upstream of the City of West Sacramento could cause significant downstream flooding. Dams with large inundation areas located upstream of the city include the Folsom Dam, Oroville Dam, Shasta Dam, and the dams at Indian Valley

Reservoir and Lake Berryessa (City of West Sacramento 2016a). The Project site is located approximately 100 miles inland from the coast and is not within a tsunami inundation area.

## 3.10.3 Discussion of Checklist Responses

### a. Violate any water quality standards, waste discharge requirements or otherwise substantially degrade surface or ground water quality—*Less than Significant*

Construction of the Proposed Project would involve ground disturbance that could result in sediments being transported into Channel CH2, and ultimately into downstream waterbodies, including the Sacramento Bypass Wildlife Area and Yolo Bypass, thereby degrading the quality of these receiving waters. Construction activities would loosen soils and, without implementation of preventative measures, these soils could then be washed downstream/transported off site.

Construction would also include the storage, use, transport, and disposal of hazardous materials (e.g., fuels, oils, solvents) used for construction equipment. Accidental spills of these materials or improper material disposal could pose a risk to the groundwater underlying the spill or disposal area if the materials seep into the soil or groundwater. In addition, ground-disturbing activities (such as trenching) during Project construction could potentially expose groundwater, thereby providing a direct pathway by which hazardous materials could enter groundwater and potentially impair its quality. Improper disposal of dewatering effluent could also pose a potential threat to surface water or groundwater quality if the dewatered groundwater was polluted and transported to surface waters or groundwater.

Because the Proposed Project would disturb more than 1 acre of land, it would be subject to the NPDES General Permit for Construction Activities. As part of its compliance with this permit, the State and/or its contractor would prepare a SWPPP that would include erosion-control measures, hazardous materials storage requirements, good site housekeeping protocols, and hazardous materials spill contingency measures, among others. As discussed further in Section 3.9, "Hazards and Hazardous Materials," storage and use of hazardous materials for Project construction activities would be limited and would be performed in compliance with all applicable federal, state, and local hazardous materials and hazardous waste regulations. Compliance with the General Permit for Construction Activities and applicable hazardous materials and wastes regulations would prevent significant impacts to surface or groundwater quality from occurring.

Once in operation, the Proposed Project would not require the use or storage of hazardous items and materials that would violate water quality standards or degrade water quality. The Proposed Project would improve drainage at the CHP Academy. Although the Project would increase runoff volumes and velocity in Channel CH2 (through addition of impervious surfaces; see further discussion below), it would not introduce any new pollutants that could adversely affect water quality in Channel CH2 or downstream water bodies. Overall, this impact would be **less than significant**.

### b. Decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin—*Less than Significant*

Construction-related water demands for dust control over the anticipated 9-month construction period would be met using water trucks. Although this water may be sourced from groundwater, the relatively limited water requirements of the Proposed Project during construction due to the Projects limited size and the temporary nature of construction activities would limit the potential for significant impacts on groundwater supplies.

The Proposed Project would convert approximately 17,250 $ft^2$ (0.40 acre) of land into impervious surfaces. Improvements to Channel CH2 would involve placement of approximately 16,340 $ft^2$ (0.38 acre) of concrete into the channel. This increase in impervious surface could reduce local groundwater recharge by preventing water falling on the site as precipitation or flowing in Channel CH2 from infiltrating into the soil and groundwater below; however, the impervious surface would primarily be placed within the existing channel and serve to expedite flow to downstream water bodies while the overall floodplain along the channel would be increased by the proposed grading and excavation. This water would have the opportunity to infiltrate into groundwater during its journey through the Project site and along downstream non-impervious channels/water bodies. The Project site is also located near the Sacramento River, where substantial groundwater recharge would be expected to occur, and the site exhibits a shallow groundwater table. As noted in Section 3.10.1 above, the Yolo Subbasin is designated as a high priority basin pursuant to SGMA and efforts are currently underway to develop a GSP.

Overall, the addition of the drainage improvements would not substantially interfere with groundwater recharge such as to impede sustainable groundwater management of the basin. As a result, this impact would be **less than significant**.

### c. Substantially alter the existing drainage pattern 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 – *Less than Significant*

Development of the Proposed Project would involve ground-disturbing construction activities and the creation of impermeable surfaces, both of which would alter the existing drainage pattern of the site. During construction, clearing, vegetation removal, grading, and other ground-disturbing activities would expose soils within the Project site and temporarily alter the on-site drainage patterns, thereby potentially increasing on-site susceptibility to erosion. However, the Project would be subject to the NPDES General Construction Permit, which would require preparation and implementation of a SWPPP, including measures to prevent erosion and siltation. As such, impacts associated with erosion and siltation from construction site stormwater discharges would be avoided or minimized. This impact would be **less than significant**.

### ii. Increase the rate or amount of surface runoff resulting in flooding – *Less than Significant*

The Proposed Project would include construction-related grading activities and the development of impermeable surfaces that would alter the Project site's existing drainage patterns; however, the purpose of the Proposed Project is to remedy stormwater conveyance inadequacies in Channel CH2 and prevent future flooding at the canine training facility, and would thus be designed to accommodate additional surface runoff. Surface runoff from the Project site would continue to be conveyed to the Sacramento Bypass Wildlife Area and then the Yolo Bypass. Thus, the Proposed Project would not result in flooding on- or off-site, and would not impede or redirect flows. This impact would be **less than significant**.

### iii. Create or contribute runoff water which would exceed the capacity of stormwater drainage systems or provide substantial additional sources of polluted runoff – *Less than Significant*

As noted above, the Proposed Project would create 17,250 $ft^2$ of impermeable surfaces, primarily within the existing Channel CH2, which could increase runoff flow volumes and velocities in the immediate area to some degree. Vehicular use of nearby parking areas could result in the transfer of pollutants (such as fuels and oils) onto the parking area surface and then Channel CH2, although this situation exists under the current condition. However, Channel CH2 does not connect or drain to the City's stormwater infrastructure; rather, it drains to Channel CH1 and then into the Sacramento Bypass Wildlife Area, and ultimately to the Yolo Bypass. Thus, the Project would have no effect on the City's stormwater drainage infrastructure. In general, the Proposed Project would improve drainage and flow conveyance at the canine facility and Channel CH2 and would not contribute substantial additional sources of polluted runoff. This impact would be **less than significant.**

### iv. Impede or redirect flood flows – *Less than Significant*

As described under ii. above, the purpose of the Proposed Project is to remedy stormwater conveyance inadequacies in Channel CH2 and prevent future flooding at the canine training facility. The Proposed Project would not include any above-ground structures that could impede or redirect flood flows. Therefore, this impact would be **less than significant**.

## d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation—*Less than Significant*

The Project site is not within a tsunami inundation area and is not located near a reservoir or other large surface waterbody that could result in a seiche; therefore, no impacts would occur. The Project site could be affected by dam failure at a number of dams upstream of the City. Likewise, the Project is located in the floodplain of the Sacramento River in a FEMA-designated Zone X, with a 0.1 percent annual chance of flooding. However, the Proposed Project itself would not involve the long-term use or storage of chemicals, other than temporarily during construction. The probability of dam or levee failure is very low in any given year, and corrective actions (e.g., moving equipment and materials to higher ground) could be taken if such large storms are forecasted as to cause a 1-in-100 year flood event. Overall, given the low annual probability of significant flooding at the Project site and

temporary nature of construction activities, the risk of release of pollutants due to project inundation is not reasonably likely. Therefore, this impact would be **less than significant**.

### e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan—*No Impact*

The Proposed Project includes improvements to an earthen drainage channel (Channel CH2) and the installation of ditches, erosion control, concrete V-gutters, and a trench drain around a canine training facility. It would not obstruct implementation of the Central Valley RWQCB's Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and the San Joaquin River Basin, nor would it conflict with any sustainable groundwater management plan. As stated above, the Proposed Project would not contribute substantial sources of polluted runoff and would not substantially decrease groundwater supplies. Therefore, **no impact** would occur.

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# 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? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☒ | ☐ |

## 3.11.1 Regulatory Setting

Development activities on state-owned land are exempt from local laws, regulations, and policies. However, such laws, regulations, and policies may apply to development activities not located on the Project site (e.g., connections to infrastructure within the public right-of-way). Local laws, regulations, and policies applicable to the Proposed Project are listed in Appendix A.

## 3.11.2 Environmental Setting

The CHP Academy Drainage Channel Improvements Project (Proposed Project) site is located southwest of North Harbor Boulevard and the Sacramento River, west of Interstate 80 and directly north of Reed Avenue within the CHP Academy campus in West Sacramento. Within the Proposed Project area's boundary, improvements will be made to Channel CH2 and also to some portions of the drainage around the canine training facility.

The Proposed Project begins northeast of the canine facility and traverses west, southwest, and then southeast, terminating at Channel CH1 near the CHP Academy perimeter road, directly north of Reed Avenue. The Proposed Project traverses through land that contains shrubs, grasses, and trees, and is located on property owned by the CHP. Surrounding land uses include CHP Academy campus facilities located directly north, east, and west of the Proposed Project and a business park to the south.

According to the City of West Sacramento's General Plan's land use diagram, the Proposed Project site area is designated as Public/Quasi-Public (City of West Sacramento 2016a). This designation includes facilities that support the needs of West Sacramento residents and businesses, such as schools and colleges, parks, libraries, administrative centers, corporate yards, fire and police facilities, and comparable uses (City of West Sacramento 2016). Similar to the land use designation, the Proposed Project site area is zoned as Public/Quasi-Public (City of West Sacramento 2016b).

Table 17.11.020 in Section 17.11.020 of the City of Sacramento's Municipal Code lists the land uses permitted in the Public/Quasi-Public Zone: (1) residential uses including residential care facilities, supportive housing, and transitional housing; (2) public/semi-public uses

including campgrounds, colleges and trade schools, community assembly, cultural institutions, day care centers, government offices, instructional services, park and recreation facilities, public safety facilities, and schools; (3) commercial uses including commercial entertainment and recreation, and farmer's markets; (4) transportation, communication, and utility uses including communication facilities and marinas, and; (4) other uses including accessory uses and structures, nonconforming uses, outdoor dining and seating, outdoor display and sales, recharging stations, solar energy systems, and temporary uses. The Public/Quasi-Public Zone implements the City of West Sacramento's General Plan's Public/Quasi-Public land use designation (City of West Sacramento 2019).

### 3.11.3 Discussion of Checklist Responses

#### *a.* Divide an established community—*No Impact*

The Proposed Project consists of improvements to an existing drainage on the CHP Academy campus in West Sacramento. Land uses directly adjacent to the site are classified as Public/Quasi-Public and business park. The Proposed Project will not change the existing land uses, nor will it physically divide an established community. Therefore, there would be no impact.

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

The Proposed Project is located on State-owned property. The City does not have jurisdiction over the site, and thus the City's land use plans and policies would only apply to Proposed Project activities that would occur off site (e.g., infrastructure tie-ins). Off-site activities would be conducted consistent with local requirements. Additionally, as described throughout this IS/MND in Sections 3.1 through 3.10 and 3.12 through 3.20, with the identified mitigation, the Proposed Project would not have any significant environmental impacts and therefore would not conflict with any local plans or policies adopted for the purpose of avoiding or mitigating an environmental effect. This impact would be **less than significant.**

# 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? | ☐ | ☐ | ☒ | ☐ |
| 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? | ☐ | ☐ | ☒ | ☐ |

## 3.12.1 Regulatory Setting

### *Federal Laws, Regulations, and Policies*

No federal regulations are applicable to mineral resources in relation to the Proposed Project.

### *State Laws, Regulations, and Policies*

### *Surface Mining and Reclamation Act of 1975*

The Surface Mining and Reclamation Act of 1975 (SMARA) requires that the State Mining and Geology Board identify, map, and classify aggregate resources throughout California that contain mineral resources of regional significance. The main objective of the SMARA classification-designation process is to ensure that mineral resources will be available when needed. Local jurisdictions are required to enact planning procedures to guide mineral conservation and extraction at particular sites and to incorporate mineral resource management policies into their general plans.

There are four Mineral Resource Zone (MRZ) classification-designations used in SMARA. These MRZ's are defined below (CDOC 1996):

- MRZ – 1: Areas where adequate geologic information indicates no presence of significant mineral deposits, or where it is determined that there is little likelihood of the existence of these deposits.
- MRZ – 2: Areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists. This zone shall be applied to known mineral deposits or where well-developed lines of reasoning, based upon economic, geologic principles and adequate data demonstrate that the likelihood for occurrence of significant mineral deposits is high.

- MRZ – 3: Areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- MRZ – 4: Areas where available information is inadequate for assignment to any other MRZ zone.

## 3.12.2 Environmental Setting

No identified mineral resources are located in the City of West Sacramento (CDOC 1988a, Yolo County 2009). There are state-designated significant aggregate resources in the Sacramento-Fairfield Production-Consumption Region in proximity to the Project location (CDOC 1988a). The two major production areas serving the Sacramento area include the Cache Creek Production Area, approximately 16.5 miles northwest of the Project site, and the American River Production Area, approximately 12 miles southeast of the Project site. The closest active mining operation to the Project site is the Yolo County Central Landfill Soil Borrow Site (Mine ID # 91-57-0021) approximately 7.25 miles to the west (CDOC 2016a). Northeast of the Project site two mines are currently in the reclamation process: the Urrutia (Mine ID # 91-34-0019), which produces sand and gravel, located approximately 3.7 miles northeast of the Project site (CDOC 2016b); and the SAFCA Borrow Site 18A (Mine ID # 91-34-0035), which supplies fill dirt, located approximately 4.6 miles northeast of the Project site (CDOC 2016c). Additionally, one reclaimed site, the DWR/Conoway Ranch-South Mine (Mine ID # 91-57-0017), is located approximately 3.7 miles west of the Project site. There are no mining operations located on the Proposed Project site, nor are there any known wells or oil and gas resources (Yolo County 2009).

The Proposed Project is located in an area designated as MRZ-1 (CDOC 1988b). As described in Section 3.12.1 above, this classification indicates that this area either does not contain significant mineral deposits, or that the existence of these deposits is unlikely. Immediately northeast of the Project boundaries are areas designated as MRZ-3 (CDOC 1988b). Present land uses surrounding the Project area are incompatible with mining due to urbanization, flood control infrastructure and wildlife protection. In 1988, 1.23 billion tons of aggregate resources (including reserves) were identified in the Sacramento Fairfield Production-Consumption Region (CDOC 1988a). No land classified as MRZ-2 is located within 2 miles of the Project site.

## 3.12.3 Discussion of Checklist Responses

### 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—*Less than Significant*

The Proposed Project includes improvements to an earthen drainage channel (Channel CH2) and the installation of ditches, erosion control, concrete V-gutters, and a trench drain around the CHP Academy's canine training facility. Such development would limit the ability for mineral resource development and extraction at this site, but would not permanently affect any mineral resources that underlie the site. The Project site is located in a suburban area and construction activities associated with the Proposed Project would not occur within areas identified for potential mineral recovery. Therefore, this impact would be **less than significant.**

### 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—*Less than Significant*

The Project site is not identified as a locally important mineral recovery site; however, the absence of significant mineral resources has not been confirmed in this location. The Project is adjacent to the City of West Sacramento's urban limits, as well as the Yolo Bypass and Sacramento Bypass Wildlife Area, where land use is incompatible with mining. The City of West Sacramento General Plan does not analyze any mineral resources or provide policies and goals regarding the preservation of mineral resources within the city (City of West Sacramento 2016). While the Yolo County General Plan does identify locally important mineral resources throughout the county, none of these resources are in the vicinity of Project area. As such, the Proposed Project would not interfere with the County's Mineral Resources protection policies (Policy CO-3.1 thru CO-3.5) (Yolo County 2009). Therefore, the Proposed Project impact on the availability or recovery of a locally important mineral resource would be **less than significant**.

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# 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 a local general plan or noise ordinance or applicable standards of other agencies? | ☐ | ☐ | ☒ | ☐ |
| b. Generation of excessive groundborne vibration or groundborne noise levels? | ☐ | ☐ | ☒ | ☐ |
| 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? | ☐ | ☐ | ☒ | ☐ |

## 3.13.1 Overview of Noise and Vibration Concepts and Terminology

### *Noise*

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

Different types of measurements are used to characterize the time-varying nature of sound. Below are brief definitions of these measurements and other terminology used in this chapter.

- **dB** is a measure of sound on a logarithmic scale that indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micro-pascals.

- **dBA** is an overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Maximum sound level (Lmax)** is the maximum sound level measured during a given measurement period.
- **Minimum sound level (Lmin)** is the minimum sound level measured during a given measurement period.
- **Equivalent sound level (Leq)** is the equivalent steady-state sound level that, in a given period, would contain the same acoustical energy as a time-varying sound level during that same period.
- **Percentile-exceeded sound level (Lxx)** is the sound level exceeded during *x* percent of a given measurement period. For example, $L_{10}$ is the sound level exceeded 10 percent of the measurement period.
- **Day-night sound level (Ldn)** is the energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels during the period from 10:00 p.m. to 7:00 a.m. (typical sleeping hours). This weighting adjustment reflects the elevated sensitivity of individuals to ambient sound during nighttime hours.
- **Community noise equivalent level (CNEL)** is the energy average of the A-weighted sound levels during a 24-hour period, with 5 dB added to the A-weighted sound levels between 7:00 p.m. and 10:00 p.m. and 10 dB added to the A-weighted sound levels between 10:00 p.m. and 7:00 a.m.

In general, human sound perception is such that a change in sound level of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level. **Table 3.13-1** presents approximate noise levels for common noise sources, measured adjacent to the source.

**Table 3.13-1**. Examples of Common Noise Levels

| Common Outdoor Activities | Noise Level (dBA) |
|---|---|
| Jet flyover at 1,000 ft | 110 |
| Gas lawnmower at 3 ft | 100 |
| Diesel truck at 50 ft traveling 50 miles per hour | 90 |
| Noisy urban area, daytime | 80 |
| Gas lawnmower at 100 ft, commercial area | 70 |
| Heavy traffic at 300 ft | 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. High-frequency vibrations reduce much more rapidly than do those characterized by low frequencies, so that in a far-field zone distant from a source, the vibrations with lower frequency amplitudes tend to dominate. Soil properties also affect the propagation of vibration. When ground-borne vibration interacts with a building, a ground-to-foundation coupling loss usually results but the vibration also can be amplified by the structural resonances of the walls and floors. 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. Human sensitivity to vibration varies by frequency and by receiver. 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.

## 3.13.2 Regulatory Setting

### *Federal Laws, Regulations, and Policies*

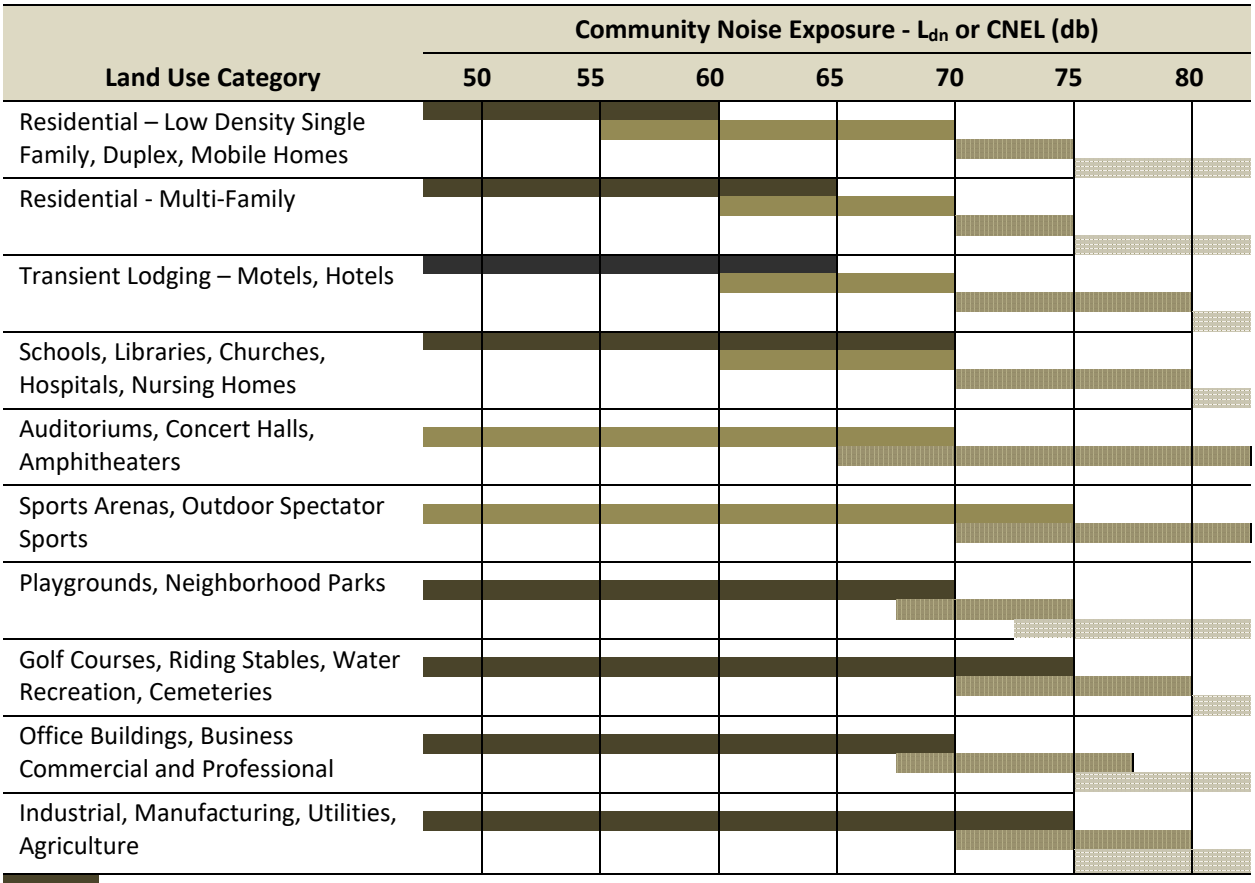
No federal laws, regulations, or policies for construction equipment-related noise and vibration apply to the Proposed Project. The Federal Transit Administration (FTA) Guidelines for Construction Vibration in *Transit Noise and Vibration Impact Assessment* state that, for evaluating daytime construction noise impacts in outdoor areas, a noise threshold of 90 dBA $L_{eq}$ should be used for residential areas (FTA 2018).

For demolition vibration impacts, the FTA guidelines use an annoyance threshold of 80 VdB for infrequent events (fewer than 30 vibration events per day) and damage thresholds of 0.3 in/sec PPV for engineered concrete and masonry structures and 0.12 in/sec PPV for buildings extremely susceptible to vibration damage (FTA 2018).

### *State Laws, Regulations, and Policies*

California requires each local government entity to implement a noise element as part of its general plan. California Administrative Code, Title 4, resents guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The state land use compatibility guidelines are listed in **Table 3.13-2.**

**Table 3.13-2**. State Land Use Compatibility Standards for Community Noise Environment




| | |
|---|---|
| **Normally Acceptable** | Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements. |
| **Conditionally Acceptable** | New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. |
| **Normally Unacceptable** | New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. |
| **Clearly Unacceptable** | New construction or development generally should not be undertaken. |

*Source: California Governor's Office of Planning and Research 2017*

### *Local Laws, Regulations, and Policies*

Local laws, regulations, and policies are provided in Appendix A. The analysis below references Yolo County and the City of West Sacramento's rules, regulations, and plans.

## 3.13.3 Environmental Setting

With respect to groups that could be exposed to noise generated by the Proposed Project, government and industrial land uses are located near the existing site. There are limited sensitive receptors near the Project site. The approximate distance to nearby sensitive receptors was determined from the center of the Project site, as recommended by the FTA (2018). The nearest off-site sensitive receptor to the Project site is a residence on Garden Highway, approximately 3,170 feet to the northeast from the Project site's center. The Christ Holy Sanctified Church is roughly 5,300 feet to the east of the Project site's center. No other sensitive receptors are located near the Project site. Note that the Academy itself is not considered a sensitive receptor in this instance due the fact that loud noises already occur throughout the day on campus as part of cadet training (e.g., firearm and emergency vehicle operation training).

Traffic noise modeling showed existing sound levels of 58 Ldn (day-night average sound level) along Reed Avenue south of the Project site and 61 Ldn along North Harbor Boulevard north of the site (City of West Sacramento 2016a). Major sources of noise in the area include traffic along Interstate 80, and emergency vehicles from nearby CHP facilities. Sources of noise from CHP Academy operations include firearm and emergency vehicle operation training. Ambient noise in the Project site is also influenced by the nearby industrial activities (i.e., warehouses, delivery vehicles, water treatment plant operations). Sacramento International, Executive, McClellan, and Mather Airports are located approximately 6, 6, 9, and 13 miles, respectively, from the Project site. The CHP Academy Airport is located approximately 1,600 feet west of the drainage channel.

## 3.13.4 Discussion of Checklist Reponses

### 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 in other applicable local, state or federal standards—*Less than Significant*

The Proposed Project would generate noises associated with construction activities, which would be temporary and cease once work on the Project is complete. The Proposed Project would not have any maintenance or operational activities and therefore would have no permanent noise impacts.

Activities on the CHP state-owned land would be exempt from local noise standards. Regardless, the City of West Sacramento Safety Element is informative as it indicates what is typically considered appropriate for construction- or demolition-related noise in the project vicinity.

The City of West Sacramento's Safety Element contains a goal "to protect city residents from the harmful effects of excessive noise and vibration" and establishes noise compatibility

standards for different land uses. The exterior noise level standard ranges from 60-65 dB for residential land uses and 70-75 dB for commercial and industrial land uses (City of West Sacramento 2016b). Further discussion of the anticipated noise associated with Proposed Project's construction and consistency with relevant guidance, is provided below.

Because some commercial and industrial areas are located near the Project site, an evaluation of the noise levels compared to the values recommend by FTA was conducted. The FTA has established guidance on noise and vibration impact assessments for construction equipment (FTA 2018). The FTA recommends that for a rough estimate of construction noise levels the noisiest two pieces of equipment be used to analyze the anticipated noise levels at sensitive receptors assuming the following:

- full power operation for a full one hour is assumed,
- there are no obstructions to the noise travel paths,
- typical noise levels from construction equipment are used, and
- all pieces of equipment are assumed to operate at the center of the project site.

Using these assumptions, the noise levels at specific distances can be obtained using the following equation:

$$L_{eq}(equip) = EL_{50ft} - 20log_{10}(D/50)$$

Where:

$L_{eq}$ (equip) = the noise emission level at the receiver at distance D over 1 hour.

$EL_{50ft}$ = noise emission level of a particular piece of equipment at reference distance of 50 feet.

D = the distance from the receiver to the piece of equipment in feet.

In order to add the two noisiest pieces of equipment together, the following equation applies:

$$L_{total} = 10\ log_{10}(10^{\frac{L1}{10}} + 10^{\frac{L2}{10}})$$

Where:

$L_{total}$ = The noise emission level of two pieces of equipment combined

$L_1$ = The noise emission level of equipment type 1

$L_2$ = The noise emission level of equipment type 2

Noise levels at the Proposed Project's nearest sensitive receptors generated by equipment used during Project construction were estimated by using the FTA reference guide (FTA 2018), the Federal Highway Administration Construction Noise Handbook (2019), and a preliminary list of equipment based on general construction assumptions. The values used

for the reference noise level at 50 feet were 90 and 85 dBA for a concrete saw and bulldozer, respectively. Detailed assumptions and calculations can be found in Appendix F, Noise Analysis.

Using the equations above and the two noisiest pieces of equipment, the noise levels at the nearest receptor (a single-family residence), located 3,170 feet from the center of the Project area, would be 55 dBA. Given that construction will only take place during the day, this noise level is below the 60 dB CNEL standard for single-family residences outlined in the West Sacramento General Plan. Potential noise levels related to the Project's construction at the other nearest receptor (the church) would be even lower than the residence since there is greater distance between this receptor and the Project site.

In addition, the noise level estimates at the nearest sensitive receptors are below the FTA's recommended level of 90 dBA. Furthermore, construction would be short-term and intermittent. The use of diesel-powered construction equipment would be temporary and episodic, affecting only a few nearby receptors for a limited period of time (approximately 6 months). For these reasons, and because such work would not violate the City's noise standards, the temporary increases in ambient noise levels associated with construction would be **less than significant.**

## b. Generation of excessive groundborne vibration or groundborne noise levels—*Less than Significant*

The City of West Sacramento's Safety Element contains a goal "to protect city residents from the harmful effects of excessive noise and vibration" and establishes groundborne vibration impact criteria for different land uses. For buildings where vibration could interfere with interior operations such as the operation of sensitive equipment, the threshold is 65 VdB (City of West Sacramento 2016b). FTA guidance provides vibration thresholds of 0.12 in/sec PPV for buildings extremely susceptible to vibration damage and 65 VdB as the human perception threshold. Vibration and ground-borne noise levels were estimated following methods described in the FTA Noise and Vibration Impact Assessment (FTA 2018) to determine the PPV and the VdB that would potentially impact buildings or people. The greatest equipment-related sources of groundborne vibration and noise would be bulldozers and loaded trucks used for hauling. **Table 3.13-3** shows relevant parameters for the construction equipment used for the Proposed Project and distance to sensitive receptors to be below vibration thresholds.

**Table 3.13-3**. Demolition and Relocation Equipment and Vibration Distance

| Equipment | PPV at 25 ft | Distance to PPV of 0.12 in/sec | Noise Vibration Level at 25 ft | Distance to Noise Vibration of 65VdB |
|---|---|---|---|---|
| Large Bulldozer | 0.089 in/sec | 20.5 feet | 87 VdB | 135 feet |
| Loaded Trucks | 0.076 in/sec | 18.4 feet | 86 VdB | 125 feet |

Given the size of the Project area and that vibration impacts are typically measured from the center of the Project site, no sensitive receptors or sensitive buildings are within the threshold distances shown in Table 3.13-3. A small fraction of the proposed grading work

would take place within 15 to 20 feet of buildings at the CHP Academy's canine training facility and within 135 feet of the EVOC building. Work within threshold distances of these buildings would be temporary and brief in duration. Given the purpose of the Proposed Project and the existing sources of noise at the Academy, these facilities are not considered to be sensitive receptors. Additionally, grading work close to the canine training facility would be shallow and involve equipment (such as a bobcat) that is smaller, lighter, and a lower source of vibration than a large bulldozer. Loaded trucks would likely utilize Reed Avenue before getting on the interstate; however, buildings along this road typically have setbacks greater than the distance threshold for extremely susceptible buildings. The vibration from trucks would be small compared to the existing vibrations from truck traffic associated with other facilities in the vicinity. Therefore, this impact would be **less than significant**.

### 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—*Less than Significant*

The Proposed Project site is not located in the vicinity of a public airport (nearest is at least 6 miles away). As discussed in more detail in Section 3.9, "Hazards and Hazardous Materials," the Proposed Project is located in Referral Area 2 of the Sacramento International Airport's Influence Area, however this designation is not based on noise-related concerns. Additionally, the Proposed Project is located more than 2 miles outside of the airport's 60 CNEL noise contour (Sacramento County 2019). The CHP Academy Airport is located approximately 1,600 feet west of the drainage channel. The Proposed Project does not involve construction of new buildings or placing sensitive receptors near the Academy Airport. While construction workers would be within 2 miles of the Academy Airport, they would only be on site temporarily. The Academy buildings closest to the Project site are occupied by State employees. Noise generated by the Proposed Project will be temporary and is not likely to be noticeable inside nearby buildings given current Academy operations that include driving, weapons, and aircraft-related training. Therefore, this impact is **less than significant**.

# 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 (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)? | ☐ | ☐ | ☒ | ☐ |
| b. Displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ |

## 3.14.1 Regulatory Setting

### *Federal and State Laws, Regulations, and Policies*

No federal or state regulations are applicable to population and housing in relation to the Proposed Project.

## 3.14.2 Environmental Setting

The Proposed Project is located west of the Sacramento River, and southwest of the intersection of North Harbor Boulevard and Tule Jake Road within the CHP Academy campus in the City of West Sacramento. The CHP Academy campus contains temporary housing for CHP Academy cadets involved in the CHP Academy training program. Housing is located approximately 600 feet away from the Proposed Project area.

The City of West Sacramento's population is currently estimated at 53,727 as of July 1, 2018 (U.S. Census Bureau 2018). There are approximately 19,067 housing units in West Sacramento, with approximately 18,000 units occupied (U.S. Census Bureau 2019a citing 2017 American Community Survey). The current combined homeowner and renter vacancy rate is approximately 4.9 percent.

The majority of jobs in West Sacramento are in the educational services and the health care and social assistance industry, which together accounted for approximately 19 percent of the workforce in 2017[1] (U.S. Census Bureau 2019b citing 2017 American Community Survey). Other large industries include public administration; retail trade; professional, scientific, and

[1] **Note:** 2017 was the last year for which data were available.

management services; administrative and waste management services; and arts, entertainment, recreation, and accommodation and food services.

### 3.14.3 Discussion of Checklist Responses

#### a. Induce unplanned population growth — *Less than Significant*

The Proposed Project would not involve any activities that would directly increase population growth, such as construction of new housing or businesses. Additionally, the Proposed Project would not indirectly increase population growth as the Proposed Project does not involve construction of permanent roads or infrastructure.

It is expected that the local or regional labor force would be sufficient to meet the construction workforce demand associated with the Proposed Project. While some workers may temporarily relocate from other areas, the resulting population increase would be minor and temporary as the construction process is only anticipated to last approximately 9 months. As a result, this impact would be **less than significant**.

#### b. Displace a substantial number of existing housing or people — *No Impact*

The Proposed Project involves improvements (excavation and widening, addition of a concrete bottom lining and rip-rap, replacement of a culvert and pedestrian bridge) to an existing drainage and in areas around the canine training facility within the CHP Academy campus. Implementation of the Proposed Project would not displace any residents or housing units, and no replacement housing would be needed. **No impact** would occur.

# 3.15 PUBLIC SERVICES

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less-than-Significant Impact | No Impact |
|---|---|---|---|---|
| Would the Project: | | | | |
| c. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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 following public services: | | | | |
| i. Fire protection? | ☐ | ☐ | ☒ | ☐ |
| ii. Police protection? | ☐ | ☐ | ☐ | ☒ |
| iii. Schools? | ☐ | ☐ | ☐ | ☒ |
| iv. Parks? | ☐ | ☐ | ☐ | ☒ |
| v. Other public facilities? | ☐ | ☐ | ☒ | ☐ |

## 3.15.1 Regulatory Setting

### *Federal Laws, Regulations, and Policies*

No federal laws, regulations, or policies apply to public services and the Proposed Project.

### *State Laws, Regulations, and Policies*

#### California Fire Code

The California Fire Code (Title 24 CCR, Part 9) establishes minimum requirements to safeguard public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings. Chapter 33 of CCR contains requirements for fire safety during construction and demolition as follows:

> **3304.4 Spontaneous ignition.** Materials susceptible to spontaneous ignition, such as oily rags, shall be stored in a listed disposal container.
>
> **3304.5 Fire watch.** When required by the fire code official for building demolition, or building construction during working hours that is hazardous in nature, qualified

personnel shall be provided with at least one approved means for notification of the fire department and their sole duty shall be to perform constant patrols and watch for the occurrence of fire.

**3308.1 Program superintendent.** The owner shall designate a person to be the fire prevention program superintendent who shall be responsible for the fire prevention program and ensure that it is carried out through completion of the project. The fire prevention program superintendent shall have the authority to enforce the provisions of this chapter and other provisions as necessary to secure the intent of this chapter. Where guard service is provided, the superintendent shall be responsible for the guard service.

**3308.2 Prefire plans.** The fire prevention program superintendent shall develop and maintain an approved prefire plan in cooperation with the fire chief. The fire chief and the fire code official shall be notified of changes affecting the utilization of information contained in such prefire plans.

**3310.1 Required access.** Approved vehicle access for firefighting shall be provided to all construction or demolition sites. Vehicle access shall be provided to within 100 feet of temporary or permanent fire department connections. Vehicle access shall be provided by either temporary or permanent roads, capable of support vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available.

**3316.1 Conditions of use.** Internal combustion–powered construction equipment shall be used in accordance with all of the following conditions:

1. Equipment shall be located so that exhausts do not discharge against combustible material.
2. Exhausts shall be piped to the outside of the building.
3. Equipment shall not be refueled while in operation.
4. Fuel for equipment shall be stored in an approved area outside of the building.

## 3.15.2 Environmental Setting

### *Fire Protection*

Fire protection services for the City of West Sacramento are provided by the West Sacramento Fire Department (WSFD), which has five fire stations throughout the city. WSFD also serves the unincorporated area south of the city boundary to Babel Slough Road and across to the old Arcade Station on Jefferson Boulevard (City of West Sacramento 2019a). The department maintains reciprocal mutual and automatic aid agreements with several Yolo County Fire Departments as well as with the City of Sacramento Fire Department (WSFD 2016). WSFD has 65 full-time staff, including firefighters, chief officers, and support staff, and consists of three divisions: Fire Administration, Emergency Operations, and Fire Prevention/Hazardous Materials. WSFD has the following equipment (WSFD 2016):

- 1 battalion chief command vehicle
- 4 type I engines
- 3 type III engines
- 1 100' aerial ladder truck
- 1 water tender – 2000 gallons
- 3 fire/rescue boats
- 1 confined space/technical rescue trailer

The Proposed Project would be served by WSFD's Fire Station 44, located at 905 Fremont Boulevard, West Sacramento CA 95605 (approximately 1.8 miles southeast of the Project site). In 2016, WSFD responded to 9,019 calls for emergency, 2,697 of which were in District 44. The average emergency response time was 4 minutes 15 seconds (WSFD 2016).

### *Police Protection*

Law enforcement services at the Project site are provided by the West Sacramento Police Department (WSPD), which serves a population of approximately 50,000 within 23.3 square miles. The police station is located at 550 Jefferson Boulevard, West Sacramento, CA 95605 (approximately 1.75 miles southeast of the Project site). Among its responsibilities, WSPD patrols city neighborhoods and business districts, responds to calls for service, investigates crimes and arrests offenders, and works with the community to identify and solve problems of crime and neighborhood disorder (City of West Sacramento 2019b). The department has 74 sworn officers and 23 civilian full-time employees, and consists of three divisions: Administration, Support Services and Field Operations. Other positions within the department include part-time police officers, parking enforcement officers, reserve police officers and volunteers (City of West Sacramento 2019c). **Table 3.15-1** provides information on WSPD's activities.

**Table 3.15-1**. 2017 Crime Statistics for the City of West Sacramento

| Police Activity | Total Calls |
|---|---|
| Violent Crime | 199 |
| Murder | 7 |
| Rape | 19 |
| Robbery | 79 |
| Aggravated Assault | 94 |
| Property Crime | 1,138 |
| Burglary | 201 |
| Larceny Theft | 756 |
| Motor Vehicle Theft | 181 |
| Arson | 21 |

*Source: Federal Bureau of Investigation 2017*

### *Schools*

The City of West Sacramento, including the area in the vicinity of the Project site, is served by the Washington Unified School District (WUSD). The WUSD has seven elementary schools (six K-8 schools and one transitional kindergarten-5 school), one high school, one alternative high school, an independent study program, and an adult education program. At least one additional elementary school is planned to accommodate growth (WUSD 2019).

The WUSD has a total enrollment of approximately 7,900 students, with a staff of 400 certificated employees and 350 classified employees (WUSD 2019). The nearest schools to the Project site are Bryte Elementary School (1.25 miles east), West Sacramento Independent Study (1.25 miles east), Riverbank Elementary School (1.5 miles northeast), and Westfield Village Elementary School (1.5 miles southeast).

### *Parks*

The Project site is approximately 1.2 miles west of Bryte Park, a 34.4-acre park with walking trails, play structures, and recreational and sports facilities (City of West Sacramento 2019d). The City of West Sacramento contains 36 public parks, encompassing a total of 149 acres (City of West Sacramento 2019e). The Project site is also 0.3 mile south of the Sacramento Bypass Wildlife Area, a 360-acre parcel, which is under the jurisdiction of CDFW, provides recreation opportunities such as fishing, wildlife viewing, bird watching, and hunting (CDFW 2019). Please see Section 3.16, "Recreation," for additional information on parks.

### *Other Public Facilities*

The Project site is located approximately 2 miles northwest of the City of West Sacramento City Hall and approximately 2.2 miles northwest of the Arthur F. Turner Community Library. The closest medical facility is the Sutter Medical Center, Sacramento, approximately 5 miles southeast of the Project site.

## 3.15.3 Discussion of Checklist Responses

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

The Proposed Project would involve drainage improvements to remedy stormwater conveyance inadequacies for an earthen drainage channel in order to prevent future flooding at a CHP canine training facility. The channel (Channel CH2) is located within the CHP Academy at 3500 Reed Avenue in West Sacramento in Yolo County, California, and improvements associated with the Proposed Project would occur on property owned by CHP. Channel CH2 traverses through the Proposed Project boundary in areas that are relatively flat and contain shrubs, trees, and grassy vegetation. It also crosses through two unmaintained gravel-paved access roads, and under an-asphalt access road via a culvert, and existing pedestrian bridge. Channel improvements would include excavation and widening, addition of a concrete bottom lining along the upper and low sections of the channel, and

replacement of an existing steel culvert and an existing pedestrian bridge. Other improvements would include installation of ditches, erosion control, concrete V-gutters, and a trench drain around the western, southern, and eastern boundaries of the canine training facility.

The physical environmental impacts of the drainage improvements are discussed throughout this IS/MND and are therefore not discussed here. The Proposed Project would not require closure of any public facilities during construction. However, because the improvements would involve the use of construction equipment as well an increase of personnel to the Project area during construction, the Proposed Project could marginally increase the demand on public services. Potential impacts from the Proposed Project on specific public services are discussed below. (Section 3.17, "Transportation," provides an evaluation of Project construction's potential to impede public services as a result of truck trips and construction-related traffic.)

### i. Fire protection—*Less than Significant*

Construction activities on the Project site would take place on developed and undeveloped lands as well as unpaved areas with shrubs, trees, and grassy vegetation (see Section 3.4, "Biological Resources"). Operation of power tools and equipment during Project construction could potentially provide an ignition source and increase fire risk in the area. Storage of flammable materials (e.g., fuel) during Project construction could also increase fire risk. However, Project construction activities would follow the requirements for fire safety during construction contained in the California Fire Code and the California Public Resources Code (see the regulatory setting section above and the regulatory setting of Section 3.9, "Hazards and Hazardous Materials"). These requirements include meeting specific equipment requirements during construction activities at any sites with forest-, brush-, or grass-covered land, as detailed in Section 3.9, "Hazards and Hazardous Materials." Adherence to the requirements of the California Fire Code would reduce the potential increase in fire risk during Project construction to a less-than-significant level.

Because the Proposed Project involves drainage improvements to improve the conveyance of stormwater, no additional facility upgrades or retrofits would be necessary to comply with the California Fire Code. Thus, the Proposed Project would not generate substantial demand for fire protection, significantly affect average response times or other performance metrics, or require provision of new fire protection facilities. This impact would be **less than significant**.

### ii. Police protection—*No Impact*

The CHP provides for its own law enforcement at the Academy. The Proposed Project would not generate substantial demand for police protection, significantly affect average response times or other performance metrics, or require provision of new police protection facilities. There would be **no impact**.

### iii. Schools—*No Impact*

There would be no increase in permanent employment associated with the Proposed Project, and it would not result in population growth and related school enrollment. Therefore, there would be **no impact.**

### iv. Parks—*No Impact*

The Proposed Project would not involve construction of any parks or recreational facilities and it would not displace any existing parks or recreational facilities. No existing parks or recreational facilities are located on the Project site. Likewise, Project construction would not require the temporary closure of any nearby parks or recreational facilities, or otherwise affect the access or use of such facilities. Finally, there would be no increase in population resulting from the Proposed Project that could increase the demand for parks or recreational facilities. Therefore, there would be **no impact**.

### v. Other public facilities—*Less than Significant*

Project construction activities (e.g., equipment movement, materials and waste hauling) could potentially cause temporary local traffic delays in the area, which may marginally decrease ease of access to Sutter Medical Center, Sacramento, located at 2825 Capitol Avenue, Sacramento, CA 95816 (see Section 3.17, "Transportation" for additional discussion of Project traffic impacts). However, these potential impacts would not be significant and would not require or result in the need to construct new or expanded public facilities. Additionally, because there would be no increase in population resulting from the Proposed Project, there would not be an increase in demand for the public facilities mentioned above. Therefore, this impact would be **less than significant**.

# 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? | ☐ | ☐ | ☒ | ☐ |
| b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? | ☐ | ☐ | ☐ | ☒ |

## 3.16.1 Regulatory Setting

### *Federal and State Laws, Regulations, and Policies*

There are no federal or state laws, regulations, or policies regarding recreation that are applicable to the Proposed Project.

## 3.16.2 Environmental Setting

The City of West Sacramento has 36 parks, totaling approximately 145 acres. Additional recreation facilities within city boundaries include indoor facilities (boathouse, Club West, Community Center, Galleria, and recreation center) outdoor amenities (baseball/softball fields, cricket fields, basketball courts, aquatic centers, skate parks, etc.), and recreation corridors (City of West Sacramento 2019). These parks and recreation spaces are managed by the City of West Sacramento's Parks Division and Recreation Division.

There are two parks and one recreational area within 1 mile of the Proposed Project area: Bryte Park (1 mile east), Meadowdale Park (1 mile south), and the Sacramento River/Barge Canal recreation corridor (0.2 mile northeast). Existing open space is located approximately 0.2 mile north and northwest of the Proposed Project area within the Sacramento Bypass Wildlife Area, outside of the City of West Sacramento's city limits. The Sacramento Bypass Wildlife Area can be accessed by pedestrians through a gate at the Sacramento Bypass Levee at the intersection of County Road 127 and North Harbor Boulevard (north of the CHP Academy campus). Although the Sacramento Bypass Wildlife Area offers recreational opportunities (e.g., fishing, wildlife viewing, bird watching, and hunting), it is not a designated recreational facility. **Table 3.16-1** lists parks in proximity to the Project.

**Table 3.16-1**. Parks and Recreational Facilities in the Vicinity of the Proposed Project

| Park/Facility Name | Ownership | Approximate Distance and Direction from Project Site (aerial miles) | Features |
|---|---|---|---|
| Bryte Park | City of West Sacramento | 1 | Softball and baseball diamonds, soccer fields, basketball court, picnic area, bbq, tot lot, play structure, fitness course, restrooms, Club West Teen Center, football facilities, walking paths, track |
| Meadowdale Park | City of West Sacramento | 1 | Picnic tables, tot lot, walking path, bbqs |

## 3.16.3 Discussion of Checklist Responses

### a. Increase use of existing parks or recreational facilities—*Less than Significant*

The Proposed Project consists of improvements to an existing drainage located with the CHP Academy campus. The closest parks are Bryte and Meadowdale Parks, located approximately 1 mile east and 1 mile south of the Proposed Project site, respectively. The Sacramento River/Barge Canal recreational corridor is located approximately 0.2 mile northeast, and the Sacramento Bypass Wildlife Area is 0.2 mile north. As noted in Section 3.14, "Population and Housing," the Proposed Project would not result in substantial population growth, and therefore, would not substantially increase demand for parks and recreational facilities in the area. If workers from out of the area were to temporary relocate to the West Sacramento area in order to construct the Proposed Project, they could marginally increase the use of existing parks and recreational areas (e.g., if they or their family were to use nearby recreational facilities in their spare time), but such effects are speculative, would not be substantial if they occurred, and would not require or result in the construction of new or expanded parks or recreational facilities. As a result, this impact would be **less than significant**.

### b. Creation of new or altered recreational facilities — *No Impact*

The Proposed Project would not create or alter any recreational facilities. Likewise, the Project would not introduce substantial numbers of people to the area or otherwise cause the need to construct new or altered recreational facilities. As a result, **no impact** would occur.

# 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? | ☐ | ☐ | ☒ | ☐ |
| b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? | ☐ | ☐ | ☒ | ☐ |
| c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☐ | ☐ | ☐ | ☒ |
| d. Result in inadequate emergency access? | ☐ | ☐ | ☒ | ☐ |

## 3.17.1 Traffic and Transportation Terminology

The following are definitions of key traffic and transportation terms used in this section and based on materials published by the Transportation Research Board (2016).

**Level of Service.** Level of service (LOS) is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Intersection LOS is defined according to methods presented in the Highway Capacity Manual (Transportation Research Board 2016). Using the Highway Capacity Manual procedures, the quality of traffic operation is graded into one of six service levels, LOS A through F (see **Table 3.17-1**).

To measure the operating conditions of the local transportation system, the study area was evaluated in terms of LOS. Table 3.17-1 below contains the standards for the six service levels used in the study area.

**Table 3.17-1.** Level of Service Definitions for Intersections

| Level of Service | Description | Delay (seconds/vehicle) | |
|---|---|---|---|
| | | Signalized Intersection | Unsignalized Intersection |
| A | Free-flow speeds prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream. | ≤ 10 | 0-10 |

| Level of Service | Description | Delay (seconds/vehicle) | |
|---|---|---|---|
| | | Signalized Intersection | Unsignalized Intersection |
| B | Free-flow speeds are maintained. The ability to maneuver within the traffic stream is only slightly restricted. | > 10-20 | > 10-15 |
| C | Flow with speeds at or near free-flow speeds. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the part of the driver. | > 20-35 | > 15-25 |
| D | Speeds decline slightly with increasing flows. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort. | > 35-55 | > 25-35 |
| E | Operation at capacity. There are virtually no usable gaps within the traffic stream, leaving little room to maneuver. Any disruption can be expected to produce a breakdown with queuing. | > 55-80 | > 35-50 |
| F | Represents a breakdown in flow. | > 80 | > 50 |

*Source: Highway Capacity Manual (Transportation Research Board, 2016)*

**Delay.** Delays refer to the additional travel time experienced by a driver or traveler that results from the inability to travel at optimal speed and stops resulting from congestion or traffic control.

**Freeway.** The function of a freeway is to provide for inter-regional and intra-regional travel. Freeways serve high speed traffic and are fully access-controlled with no at-grade crossings interrupting the flow of traffic. Vehicle speeds and daily traffic volumes are very high. Interchanges typically connect to major or minor arterials.

**Arterial roads.** Arterial roads provide for mobility within the county and its cities, carrying through-traffic on continuous routes and joining major traffic generators, freeways, expressways, super arterials, and other arterials. Access to abutting private property and intersecting local streets is generally restricted.

**Local roads.** Local roads provide direct access to abutting property and connect with other local roads, collectors, arterials, super arterials, and expressways. Local roads are typically developed as 2-lane, undivided roadways and provide access to abutting private property and intersecting streets.

## 3.17.2 Regulatory Setting

### *Federal Laws, Regulations, and Policies*

No federal laws, regulations, or policies pertaining to transportation and traffic were identified.

### *State Laws, Regulations, and Policies*

Caltrans manages the state highway system and ramp interchange intersections. This state agency is also responsible for highway, bridge, and rail transportation planning, construction, and maintenance.

### *Local Laws, Regulations, and Policies*

The Project site is located within the city of West Sacramento and significance criteria specified by the City of West Sacramento was referenced for the study location.

## 3.17.3 Environmental Setting

The Project proposes to improve a manmade drainage channel that runs along the west side of the CHP Academy campus in the northwest corner of West Sacramento. The Project site is bounded by Biscaluiz Boulevard to the east, the Academy's defensive driving area to the north, the EVOC parking area and Smith Boulevard to the west, and the drainage ditch just north of Reed Avenue to the south.

Reed Avenue and North Harbor Boulevard are in the vicinity of the Proposed Project and are classified as Medium-High Access Control Arterials in the City's General Plan. Biscaluiz Boulevard, Cato Circle, and Peterson Place are located within the Project Area and are classified as local roads. The following subsections describe regional and local access to the Project area.

### *Existing Vehicle Access*

The Project site will be accessed from Biscaluiz Boulevard, Peterson Place, and Smith Boulevard. Access to these gated roads is controlled and they are primarily utilized by employees, cadets, and visitors to the CHP Academy. The Project site is served by a freeway and local roads. The following text provides a brief discussion of the major components of the study area's main street and freeway.

> Interstate 80, located approximately 0.5 miles east of the Project site, is an east/west multi-lane freeway which serves as a major regional connector for the cities of Sacramento and West Sacramento. The segment of Interstate 80 closest to the Project site provides three lanes in each direction. Access to the Project site from the freeway is provided at ramps located at Reed Avenue.
>
> Reed Avenue is an arterial that provides two travel lanes in each direction from Interstate 80. It serves as a major access road from Interstate 80 to the Project site. Within the vicinity of the Project site, it has a speed limit of 40 mph.

### *Existing Bicycle and Pedestrian Facilities*

The Proposed Project is within the City's Bike Share service area. The nearest bicycle facility to the Proposed Project site is a Class II bike lane along Sacramento Avenue and Harbor Boulevard. According to the 2018 West Sacramento Bicycle, Pedestrian, and Trails Master Plan, a Class II bike lane is proposed for Reed Avenue and a Class III bike route is proposed for North Harbor Boulevard (City of West Sacramento 2018).

Within the vicinity of the Project site, no sidewalks exist on Biscaluiz Road. Reed Avenue has sidewalks on both sides between Interstate 80 and Stillwater Road, then only on the south side from Stillwater Road to Riverside Parkway.

### *Existing Transit Service*

Yolobus provides transit service for the study area. The West Sacramento Shuttle (Route 240) has a stop at Reed Avenue and Stillwater Road. Service runs on weekdays from 6:00 a.m. to 7:50 p.m. with headways of one hour. On Saturdays, service runs from 7:10 a.m. to 7:00 p.m., with headways of one hour. On Sundays and holidays, service runs from 8:10 a.m. to 6:00 p.m., with headways of one hour. Routes 40 and 41 have stops roughly 0.7 miles east of the Project Area.

## 3.17.4 Discussion of Checklist Responses

### a. Conflict with programs, plan ordinances, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities—Less than Significant

The City of West Sacramento General Plan Mobility Element has a goal to maintain a LOS of "C" on all streets within the City with some exceptions near freeways and special districts (City of West Sacramento 2016).

The Project activities would generate three types of vehicle traffic: mobilization and demobilization of heavy construction equipment; construction worker commuting; and delivery of materials and supplies.

### *Heavy Equipment Deliveries and Material Hauling*

Construction equipment would be staged on site, meaning that once delivered, equipment would remain on site until work has been completed. Transportation of equipment to (mobilization) and from (demobilization) the Proposed Project area would add a small number of additional trips. Additional trips would be generated by delivery of materials and supplies and removal of demolition materials and spoils.

### *Construction Worker Trip Generation*

As described in Chapter 2, Proposed Project activities are anticipated to occur over 9 months. It is estimated that 3-10 workers would be on site during construction depending on the phase. Over the construction period, it is estimated that construction worker vehicles would add no more than ten round trips, or 20 individual trips, to area roadways each day.

### *Summary*

Up to approximately 39 individual daily trips would be generated during construction; these trips would be generated from a combination of construction worker commute vehicles, mobilization and demobilization of heavy construction equipment, soil export, and delivery of materials and supplies. This number represents a small proportion of daily traffic volume capacity on roadway segments in the Proposed Project vicinity. Thus, the impact to the

effectiveness of the circulation system would be **less than significant**, and there would be no conflicts with any plan, ordinance or policy.

### b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)—*Less than Significant*

By July 1, 2020, all CEQA lead agencies must analyze impacts using vehicle miles traveled (VMT). Projects within one-half mile of a major transit stop or a stop along a major transit corridor are presumed to have a less than significant impact, as are projects that generate fewer than 110 daily trips (OPR 2018). The vehicle miles traveled for the Project were estimated based on a combination of construction worker commute vehicles, mobilization and demobilization of heavy construction equipment, export of soil and demolition materials, and delivery of materials and supplies. Total vehicle miles traveled for the Project is anticipated to be approximately 37,280. The Proposed Project is located within half a mile of multiple bus stops and is adjacent to an arterial road that connects to Interstate 80. The Project would not generate any new daily trips once construction is complete. Based on this analysis there is a **less than significant** impact on transportation as it relates to vehicle miles traveled.

### c. Increased hazards resulting from geometric design features—*No Impact*

The Proposed Project would not introduce unsafe design features or incompatible uses into the area. The Proposed Project would be confined to the channel bed and bank and would not change design features of adjacent roadways. A temporary gravel driveway would be installed during construction, but removed when the project is completed. Therefore, there would be **no long-term impacts** on roadway or intersection safety as a result of the Proposed Project.

### d. Inadequate emergency access—*Less than Significant*

Although there may be a small, temporary increase in local traffic due to the Proposed Project, this is anticipated to have less than significant impacts on emergency access within the Project vicinity. Impacts to emergency access are further discussed in Section 3.9, "Hazards and Hazardous Materials," and Section 3.15, "Public Services." There would be no permanent impacts to emergency access due to the Proposed Project. Therefore, there would be a **less-than-significant impact** on emergency access.

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# 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)? | ☐ | ☐ | ☐ | ☒ |
| 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | ☐ | ☒ | ☐ | ☐ |

## 3.18.1 Regulatory Setting

### *Federal Laws, Regulations, and Policies*

Federal law does not address tribal cultural resources (TCRs), as these resources are defined in the Public Resources Code. However, similar resources, called traditional cultural properties (TCPs), fall under the purview of Section 106 of the NHPA, as referenced in Section 3.5, "Cultural Resources." TCPs are locations of cultural value that are historic properties. A place of cultural value is eligible as a TCP "because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community" (Parker and King 1990, rev. 1998). A TCP must be a tangible property, meaning that it must be a place with a referenced location, and it must have been continually a part of the community's cultural practices and beliefs for the past 50 years or more. Unlike TCRs, TCPs can be associated with

communities other than Native American tribes, although the resources are usually associated with tribes. By definition, TCPs are historic properties; that is, they meet the eligibility criteria as a historic property for listing in the NRHP. Therefore, as historic properties, TCPs must be treated according to the implementing regulations found under Title 36 CFR § 800, as amended in 2001.

## *State Laws, Regulations, and Policies*

### CEQA and CEQA Guidelines

AB 52, which was approved in September 2014 and went into effect on January 1, 2015, requires that state lead agencies consult with any California Native American tribe that is traditionally and culturally affiliated with the geographic area of a proposed project, if so requested by the tribe. The bill, chaptered in Public Resources Code § 21084.2, also specifies that a project with an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment.

Defined in Public Resources Code § 21074(a), TCRs are:

(1) Sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe that are either of the following:

(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources; or

(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

TCRs are further defined under Public Resources Code § 21074 as follows:

(b) A cultural landscape that meets the criteria of subdivision (a) is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape; and

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

Mitigation measures for TCRs must be developed in consultation with the affected California Native American tribe pursuant to newly chaptered § 21080.3.2, or according to § 21084.3. Section 21084.3 identifies mitigation measures than include avoidance and preservation of TCRs and treating TCRs with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource.

## 3.18.2 Environmental Setting

An email request was made to the Native American Heritage Commission (NAHC) on February 13, 2019, to review its files for the presence of recorded sacred sites on the Project site. The NAHC responded on February 27, 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.

The United Auburn Indian Community of the Auburn Rancheria (UAIC), which has a traditional and cultural affiliation to the Project area, has requested consultation with DGS on department projects pursuant to Public Resources Code Section 21080.3.1. The Cortina Rancheria and Yocha Dehe Wintun Nation have not requested such consultation. None of the three tribes listed by the NAHC have requested consultation with the CHP.

Project notification letters, dated March 5, 2019, were sent to all three tribes identified by the NAHC. **Table 3.18-1** lists all those contacted and summarizes the results of the consultation.

**Table 3.18-1**. Native American Consultation

| Organization/Tribe | Name of Contact | Letter Date | Tribal Response | Comments |
|---|---|---|---|---|
| Cortina Rancheria – Kletsel Dehe Band of Wintun Indians | Charlie Wright, Chairperson | March 5, 2019 | No response, to date. | |
| United Auburn Indian Community of the Auburn Rancheria | Gene Whitehouse, Chairperson | March 5, 2019 | April 22, 2019 (email) | Tribe requested additional information, which was sent on April 23, 2019. |
| Yocha Dehe Wintun Nation | Anthony Roberts, Chairperson | March 5, 2019 | March 27, 2019 (letter) | Tribe requested additional information, which was sent on April 10 and 11, 2019 |

DGS received a letter response, dated March 27, 2019, from the Yocha Dehe Wintun Nation, in which the tribe requested additional information about potential ground disturbance related to the Project. The additional information, along with the record search results was submitted to Yocha Dehe Wintun Nation on April 10 and 11, 2019.

The UAIC sent an email to DGS on April 22, 2019, requesting consultation on the Project and additional information, including the record search results. The tribe also included proposed mitigation measures concerning cultural resources sensitivity training for construction workers and treatment of unanticipated discoveries during construction to be included in the environmental document that is being prepared for the Project. DGS responded on April 23, 2019, sending the requested record search materials and agreeing to the proposed mitigation

measures. This exchange was followed by a letter from UAIC dated April 15, 2019, and received by DGS on April 24, 2019. The letter reiterated the request for the record search data and other information.

DGS did not hear from Yocha Dehe or UAIC between April and November 2019. On November 5, 2019, DGS contacted both tribes by email, sending them copies of the mitigation measures and requesting comment within 30 days. The DGS also offered to send them a copy of the cultural resources assessment report prepared for the Project, and let them know that the opportunity to consult remained open.

To date, no response has been received from the Kletsel Dehe Band of Wintun Indians. DGS will continue consultation with all of the tribes throughout the development of the Project's environmental document. All correspondence between the NAHC, Native American tribes, and the DGS is provided in Appendix E.

## 3.18.3 Discussion of Checklist Responses

### a. Cause a Substantial Adverse Change to Tribal Cultural Resources

#### i. Listed, or Eligible for Listing in the California Register of Historical Resources or a Local Register of Historical Resources — *No Impact*

No TCRs listed or eligible for listing listed or eligible for listing in the CRHR, or in a local register of historical resources are known to occur in the Project vicinity. As a result, there would be **no impact** to known TCRs on state or local historical registers.

#### ii. Cause a Substantial Adverse Change to Tribal Cultural Resources Determined by the Lead Agency to Be Significant — *Less than Significant with Mitigation*

Although no surface manifestation of an archaeological resource was identified during the archaeological survey (see Section 3.5.3, "Cultural Resources Studies"), such materials may be buried and exposed during improvements to Channel CH2. Similarly, human remains may be uncovered during project excavations. Buried archaeological remains may be determined eligible for listing in the CRHR and as TCRs, as would human remains. Implementation of Mitigation Measure CR-1: Pre-construction Cultural Resources Awareness Training and Construction Monitoring; Mitigation Measure CR-2: Response Measures for Potential Unknown Archaeological Resources and Tribal Cultural Resources; and Mitigation Measure CR-3: Response Protocol for the Unanticipated Discovery of Human Remains, would reduce impacts to currently unknown TCRs that are archaeological sites to a level of **less than significant with mitigation**.

# 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, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | ☐ | ☐ | ☒ | ☐ |
| b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years? | ☐ | ☐ | ☒ | ☐ |
| c. Result in a determination by the wastewater treatment provider that serves or may serve the Project that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments? | ☐ | ☐ | ☒ | ☐ |
| 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? | ☐ | ☐ | ☒ | ☐ |
| e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | ☐ | ☐ | ☒ | ☐ |

## 3.19.1 Regulatory Setting

### *Federal Laws, Regulations, and Policies*

No federal laws, regulations, or policies apply to utilities and service systems for the Proposed Project.

### *State Laws, Regulations, and Policies*

#### California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989 (Public Resources Code, Division 30) requires all California cities and counties to implement programs to reduce, recycle, and compost wastes by at least 50 percent by 2000 (Public Resources Code § 41780). The State, acting through the California Integrated Waste Management Board, determines compliance with this mandate based on jurisdictions' per-capita disposal rates.

#### California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act of 1991 (Public Resources Code §§ 42900-42911) requires that all development projects applying for building permits include adequate, accessible areas for collecting and loading recyclable materials.

#### Urban Water Management Planning Act

California Water Code §§ 10610 *et seq.* requires that all public water systems providing water for municipal purposes to more than 3,000 customers, or supplying more than 3,000 acre-feet per year (AFY), prepare an urban water management plan (UWMP).

## 3.19.2 Environmental Setting

### *Water*

The City of West Sacramento's principle water source is the Sacramento River. Water is diverted from an intake structure upstream of the confluence of the Sacramento and American Rivers, and is treated at the George Kristoff Water Treatment Plant, which is administered by the City (City of West Sacramento 2016a).

The City has water rights with the SWRCB, U.S. Bureau of Reclamation (USBR), and with the North Delta Water Agency. Because the northern portion of the City is not within the North Delta Water Agency service boundary (including the Project site), which covers most of the City, customers in those areas use supplies from the City's SWRCB Permit and USBR Central Valley Project contract (City of West Sacramento 2016b).

Total water demand in West Sacramento's service area in 2015 was 4,404,343 Centum Cubic Feet. This demand is projected to more than double to 11,045,609 Centum Cubic Feet by 2040. The present West Sacramento water system can meet water demands during normal, single dry, and multiple dry years through 2040 (City of West Sacramento 2016b).

### *Sewer*

The City of West Sacramento provides sewer service to a population of approximately 53,727, including the Project site (U.S. Census Bureau 2018). The existing sewer collection system consists of approximately 160 miles of active gravity sewers ranging in size from 4 inches to 30 inches in diameter. It also includes 22 miles of pressure pipelines, nine pump stations, and five lift stations (City of West Sacramento 2017).

The Lower Northwest Interceptor (LNWI), a 19-mile gravity pipeline, conveys all flows from the City's collection system to the Sacramento Regional Wastewater Treatment Plant (SRWTP) north of Elk Grove, which is owned and operated by the Sacramento County Regional Sanitation District (SRCSD). The SRWTP treatment plant provides secondary treatment to residential, industrial, and commercial customers in West Sacramento, as well as unincorporated Sacramento County; the cities of Citrus Heights, Elk Grove, Folsom, Rancho Cordova and Sacramento; and the communities of Courtland and Walnut Grove. The SRWTP's permitted capacity is 181 million gallons per day (mgd), and SRCSD does not anticipate the need to increase the capacity before 2035 (City of West Sacramento 2016a).

### *Stormwater*

Stormwater infrastructure in the vicinity of the Proposed Project is managed by the City of West Sacramento, Reclamation District 537 (which covers the northern area of the city, including the Project site), and Reclamation District 900 (which covers the majority of the city) (City of West Sacramento 2016a, Yolo Local Agency Formation Commission 2019). Stormwater from the City north of Interstate 80 is conveyed through a system of both surface ditches and pipes, most of which is pumped into the Yolo Bypass by Reclamation District 900 (City of West Sacramento 2003). The City is a permittee under the Phase II Municipal Separate Storm Sewer System (MS4) permit (Order No. 2013-0001-DWQ, General Permit No. CAS000004) and manages stormwater in the Project area (see Section 3.10, "Hydrology and Water Quality").

Surface runoff on the Project site is generally conveyed to Channel CH2 via culverts or overland flow, which is then conveyed to Channel CH1, located just north of Reed Avenue, immediately west of the CHP Academy's entrance gate. Channel CH1 is a lined channel that runs along the site's southern perimeter and connects to Channel RAI at the southwestern corner of the Academy site. Channel RAI is an open channel that runs the site's western perimeter and ultimately connects to a pump station northwest of the site near Tule Jake Road and the Sacramento Bypass Wildlife Area. From the Sacramento Bypass Wildlife Area, flows are conveyed into the Yolo Bypass.

### *Solid Waste*

Solid waste collection and disposal service, along with recycling and organics (food and yard waste) collection services, within the City of West Sacramento are managed by Waste Management (Waste Management 2019a). Waste that cannot be recycled or composted is transported to Yolo County Central Landfill, which is anticipated to have adequate capacity until at least 2045 (City of West Sacramento 2016a). Waste Management's Sacramento Recycling & Transfer handles recycling needs for the residents of Sacramento and the surrounding region (Waste Management 2019b).

Three fully-permitted, Class I landfills exist in California for disposal of hazardous waste: Chemical Waste Management's facility in Kettleman City, Clean Harbors' facility in Buttonwillow, and Clean Harbors' facility in Westmorland (DTSC 2019). The nearest Class I landfill to the Project site is Chemical Waste Management's Kettleman facility, which is approximately 216 miles southeast of the Project site.

### *Electricity and Natural Gas*

Sacramento Municipal Utility District (SMUD) provides electrical service and natural gas service in the City of West Sacramento.

### *Communications*

Data and phone services in the City of West Sacramento are provided by several services including AT&T, Comcast, and Pioneer Telephone.

## 3.19.3 Discussion of Checklist Responses

### a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities—*Less than Significant*

The Proposed Project includes improvements to an earthen drainage channel (Channel CH2) and the installation of ditches, erosion control, concrete V-gutters, and a trench drain around the CHP canine training facility. Improvements would enhance Channel CH2 through excavation and widening of approximately 3,600 feet of the channel and the addition of a concrete bottom lining along portions of the upper and lower channel. It would also include construction-related grading activities and the development of impermeable surfaces that would alter the Project site's existing drainage patterns; however, the purpose of the Proposed Project is to remedy stormwater conveyance inadequacies in Channel CH2 and prevent future flooding at the canine training facility. Surface runoff from the Project site would continue to be conveyed to the Sacramento Bypass Wildlife Area and then the Yolo Bypass. Thus, the Proposed Project would improve stormwater drainage and associated infrastructure.

The Proposed Project's water demand during construction would be a small fraction of the City of West Sacramento's total water demand and would not in itself require construction of any new water treatment facilities or expansion of existing facilities. During construction, water would be supplied by a water truck, and sanitary portable restrooms would be used. The Project would generate limited volumes of wastewater during operation, which would be within the capacity of the SRWTP.

Overall, the Proposed Project would not require or result in the relocation, construction or expansion of new water, wastewater treatment, or stormwater drainage. The Proposed Project would also not require or result in relocation, new or expanded electric power, natural gas, or telecommunications facilities. Therefore, this impact would be **less than significant**.

### b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years—*Less than Significant*

Once constructed, the Proposed Project would not require any operational water supply. However, construction activities for the Proposed Project would rely on water trucks to meet water supply needs (e.g., for dust control, equipment cleaning, and fill conditioning). As described above, the City provides treated water from the Sacramento River via the George Kristoff Water Treatment Plant. The City is expected to meet water demands during normal, single dry, and multiple dry years over the next 20 years. There would be sufficient water supplies available to serve the Proposed Project during construction, which would be short in duration and limited to drainage improvements. Therefore, this impact would be **less than significant**.

### c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments—*Less than Significant*

Once constructed, the Proposed Project would not require wastewater treatment. However, as described under "a" above, the Proposed Project would generate municipal wastewater during construction because sanitary portable restrooms would be used. The limited volume of wastewater that may be generated during construction would not be expected to materially affect the remaining capacity at the SRWTP, especially given the type and short duration of construction. As noted under Section 3.19.2 above, this treatment plant has capacity to treat 181 million gallons. Therefore, the wastewater treatment provider would have sufficient capacity to continue to serve the CHP Academy site. As a result, this impact would be **less than significant**.

### d-e. Generate solid waste in excess of State or local standards, the capacity of local infrastructure, or impair solid waste reduction goals / Comply with all applicable management and reduction regulations related to solid waste—*Less than Significant*

During construction, it is estimated that the Proposed Project would generate approximately 6,000 cy of excavated spoils requiring off-haul from the Project site, in addition to construction debris associated with removal of the existing pavement, soil and other materials on the site. Once implemented, drainage improvements associated with the Proposed Project would not generate any solid waste or hazardous wastes.

The Project site is served by Waste Management and non-recyclable solid waste generated by the Proposed Project would be taken to Yolo County Central Landfill. Excavation spoils would be relocated on site at one of the three designated spoils pile locations (see Figure 2-2). All other construction debris would be disposed of at the Yolo County Central Landfill. As described in Section 3.19.2, Yolo County anticipates adequate solid waste disposal capacity until at least 2045 (City of West Sacramento 2016a). The relatively minimal amounts of solid

waste that would be generated from construction of the Proposed Project would not meaningfully affect the County's landfill disposal capacity.

The Proposed Project would not generate solid waste in excess of state or local standards, in excess of the capacity of local infrastructure, or impair the attainment of any solid waste goals. Additionally, it would comply with applicable management and reduction regulations related to solid waste. Therefore, this impact would be **less than significant**.

# 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? | ☐ | ☐ | ☒ | ☐ |
| 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? | ☐ | ☐ | ☒ | ☐ |
| 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? | ☐ | ☐ | ☒ | ☐ |
| 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? | ☐ | ☐ | ☐ | ☒ |

## 3.20.1 Regulatory Setting

### *Federal Laws, Regulations, and Policies*

No federal regulations are applicable to wildfire in relation to the Proposed Project.

### *State Laws, Regulations, and Policies*

#### California Fire Code

Please see Section 3.15, "Public Services," for requirements listed in the California Fire Code, Title 24 CCR, Part 9, that are applicable to wildfire in relation to the Proposed Project.

#### State of California Government Code § 51179

Section 51189 of the State of California Government Code requires that local agencies designate Very High Fire Hazard Severity Zones within their jurisdiction, unless existing designations are equal to or more restrictive than Very High Fire Hazard Severity Zones. A local agency may also designate areas as Very High Fire Hazard Severity Zones within their

jurisdiction that weren't previously identified by CAL FIRE, or alternatively, exclude areas not necessary for fire protection, as long as either of these findings are supported by substantial evidence (surrounding vegetation, regional topography, and weather patterns) that they do/do not warrant fire protection.

#### California Senate Bill No. 1241

California Senate Bill No. 1241 requires that cities and counties include a safety element in their general plans that provides protections to the community from risks associated with wildland and urban fires. The safety element would include requirements for State Responsibility Areas (SRAs) and Local Responsibility Areas (LRAs) with Very High Fire Hazard Severity Zones (VHFSZ). The bill also requires that the State of California Office of Planning and Research coordinate with CAL FIRE to develop guidelines to ensure that wildfire risk is evaluated under CEQA (State of California 2012).

#### Strategic Fire Plan for California

The Strategic Fire Plan for California is a cooperative effort between the State Board of Forestry and Fire Protection and CAL FIRE and is updated on a yearly basis. The Plan places emphasis and provides guidance on fire prevention, natural resource management, bringing multiple fire protection jurisdictions together to create county-based and community-based plans, promoting local planning processes, reducing firefighting costs and property losses, firefighter safety, and fire suppression efforts (CAL FIRE 2018).

## 3.20.2 Environmental Setting

The Proposed Project is located within the CHP Academy campus and consists of improvements to an existing drainage located in a generally flat, open grassland area surrounded by roads, CHP Academy-maintained parking lots, facilities, buildings, and landscaped areas. Vegetation with the Proposed Project site is a mix of disturbed/ruderal, California annual grasslands and landscaped areas. Portions of the Proposed Project within the drainage contain wetland vegetation and limited amounts of mixed riparian forest. Beyond the CHP Academy campus, commercial buildings are located to the south, the Sacramento River to the east, the Sacramento Bypass Wildlife Area to the north, and agricultural fields to the west.

### *Wildfire Hazard Areas*

Public Resource Code 4201-4204 and Government Code 51175-89 direct CAL FIRE to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors (Conservation Biology Institute 2019). The areas are referred to as Fire Hazard Severity Zones (FHSZ). SRAs are defined based on cover, beneficial water uses, probable erosion damage, and fire risks and hazards (City of West Sacramento 2016a), and CAL FIRE has a legal responsibility to provide fire protection on all SRA lands (CAL FIRE 2012). LRAs are also identified by CAL FIRE but managed at the local level, and are classified as VHFSZ.

The western portion of Yolo County (west of Esparto and Winters) is designated as VHFSZ and Moderate FHSZ, is in a SRA, and is therefore under the responsibility of CAL FIRE for fire suppression (Yolo County 2018). Patches of land throughout Yolo County are in fire hazard severity zones designated as LRA Moderate, including a portion of the Sacramento Bypass Wildlife Area, and a strip of land directly north and northeast of the CHP Academy (CAL FIRE

2007). The strip of land directly north and northeast of the CHP Academy contains dense trees. These areas are under the jurisdiction of the Yolo County Fire Department and the West Sacramento Fire Department (Fire Station 44).

Section 3.15, "Public Services," further describes fire protection services for the Project site.

## 3.20.3 Discussion of Checklist Responses

### *a.* Impair an adopted emergency response plan or emergency evacuation plan — *Less than Significant*

The City of West Sacramento has prepared an emergency operations plan that addresses how disasters would be managed by the City (City of West Sacramento 2016b), and the County of Yolo, in conjunction with the cities of Davis, West Sacramento, Winters, and Woodland, has developed a joint multi-hazard mitigation plan that addresses various natural hazardous threats to the community and possible mitigation strategies (Yolo County 2018). Construction of the Proposed Project would not interfere with either of these plans.

The City of West Sacramento's evacuation map designates North Harbor Boulevard and Reed Avenue as evacuation surface streets and Interstate 80 as an evacuation freeway (City of West Sacramento 2017). Traffic along Reed Avenue will potentially increase as a result of construction-related vehicle trips and trucks traveling to and from the Proposed Project site. An increase in traffic could temporarily impair the response times to an emergency in areas near the Proposed Project. However, constructed-related traffic would be temporary with only a limited amount of construction vehicles traveling to and from the Proposed Project on a daily basis. Emergency vehicle access would remain open at all times.

Thus, overall, impacts on emergency response plans and emergency evacuation plans would be **less than significant**.

### 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—*Less than Significant*

Wildfires can cause substantial destruction to infrastructure and homes and threaten human life. They can also cause secondary hazards, such as exposing people to air pollutants that are harmful to human health.

As stated in Yolo County's Operational Area Multi-Jurisdictional Hazard Mitigation Plan, wildland fire danger varies throughout Yolo County. In the eastern portion of the county where the Proposed Project site is located, the area consists of relatively flat landscape and lacks complex fuels, which imposes very little fire risk. However, as described above in Section 3.20.2, "Environmental Setting," the nearest LRA is located directly north and northeast of the CHP Academy campus within a vegetated strip of land containing weeds and dense trees. This LRA designated as LRA Moderate extends north beyond the Sacramento Bypass Levee into a portion of the Sacramento Bypass Wildlife Area. Fires within Yolo County can be exacerbated by hot north winds during periods of extremely low humidity,

particularly during the summer, and are fed by dry grass and vegetation that can quickly grow out of control (Yolo County 2018).

The Proposed Project site is relatively flat and construction of the Proposed Project would not alter the existing topography or create slopes that would increase the risk of a potential wildfire to spread and subsequently expose people to harmful pollutants. High winds, however, can carry wildfire smoke and air pollutants substantial distances, which can degrade air quality both near and far from the wildfire. Project activities occurring near the designated LRA Moderate fire threat areas could potentially exacerbate wildfire risks if construction equipment located near these areas presented an ignition source. As discussed in Section 3.9.3(g) in "Hazards and Hazardous Materials," the Proposed Project would be required to comply with CAL FIRE's Wildland Fire Management's Public Resources Code which requires that sites be supplied and maintained with adequate firefighting equipment. In addition, all work would comply with applicable federal, local, and state fire prevention regulations, including the California Fire Code. Therefore, through adherence to applicable regulations, the potential for an increased risk due to wildfires would be minimized. Potential Project impacts resulting from wildland fires would be **less than significant**.

### *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—*Less than Significant*

No installation of or maintenance of infrastructure would be required for the Proposed Project that would exacerbate fire risk or result in temporary or ongoing impacts to the environment. Although Project activities do not involve the installation of or maintenance of associated infrastructure near the designated LRA Moderate fire threat areas, wildfire risks could still be potentially exacerbated if construction equipment located near these areas presented an ignition source; however, as discussed in Section 3.9.3(g) in "Hazards and Hazardous Materials," the Proposed Project would be required to comply with CAL FIRE's Wildland Fire Management's Public Resources Code which requires that sites be supplied and maintained with adequate firefighting equipment. In addition, all work would comply with applicable federal, local, and state fire prevention regulations, including the California Fire Code. Through adherence to applicable regulations, impacts resulting from temporary or ongoing exacerbated fire risk due to construction of the Proposed Project would be **less than significant.**

### 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—*No impact*

As described in Section 3.7, "Geology, Soils, and Seismicity," the Project site is relatively flat. Because construction of the Proposed Project would not significantly alter topography or create slopes that would increase the risk of susceptibility to wildfires or landslides, no people or structures would be exposed to any downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability or drainage changes. There would be **no impact.**

# 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? | ☐ | ☒ | ☐ | ☐ |
| 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.) | ☐ | ☒ | ☐ | ☐ |
| c. Does the Project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ☐ | ☐ | ☒ |

## 3.21.1 Discussion of Checklist Responses

### a. Effects on environmental quality, fish or wildlife, and historic resources—*Less than Significant with Mitigation*

#### *Wildlife Habitat and Populations; Rare and Endangered Species*

As described in Section 3.4, "Biological Resources," the Project area, which includes Channel CH2, consists of freshwater wetland, California grassland, riparian woodland, and ruderal/developed areas. Because the Project area contains natural habitat areas, it does provide suitable habitat for some special-status wildlife species; of the 40 wildlife species identified in database searches associated with the Project site, 7 species have potential to occur on or near the Project site due to the presence of suitable habitat. These species include: valley elderberry longhorn beetle, western pond turtle, Swainson's hawk, white-tailed kite, pallid bat, silver-haired bat, and hoary bat. Seven special-status passerines have the potential to nest in the vicinity of the Project site: bank swallow, grasshopper sparrow, purple martin, tricolored blackbird, yellow-headed blackbird, western yellow-billed cuckoo, and song

sparrow (Modesto population). No special-status plant species are expected to occur within the Project area due a lack of suitable habitat.

Construction activities (including removal or disturbance of habitat, generation of excessive dust, ground disturbing activities, noise, vibration, and increased lighting) could impact the special-status species listed above. Implementation of **Mitigation Measure BIO-1** would ensure that impacts to elderberry shrubs (host plant for the valley elderberry longhorn beetle) would be avoided. **Mitigation Measure BIO-2** would ensure that surveys are conducted to determine if any WPT are present in the Project area. If WPT are found, measures would be implemented to avoid and minimize impacts on WTP. Implementation of **Mitigation Measure BIO-3** would avoid impacts on nesting birds by identifying and avoiding direct and indirect impacts to occupied nests. Implementation of **Mitigation Measure BIO-4** would ensure that surveys were completed prior to construction to identify roosting bats and maternity roosts within the Project site, and would also implement avoidance and minimization measure to reduce impacts to bats. Implementation of **Mitigation Measure BIO-5** would require replacement plantings of native trees disturbed or removed during construction activities. Implementation of **Mitigation Measure BIO-6** would ensure that all work activities comply with the general and regional conditions stated in the permits, and that compensatory mitigation is implemented for disturbances to wetlands and jurisdictional waters where needed.

In general, the Proposed Project would be constructed in an area that provides suitable habitat to wildlife and some special-status species. The Proposed Project will reduce impacts to species through implementation of Mitigation Measures BIO-1 through BIO-6 and compliance with existing laws and regulations. It would not substantially affect biological resources. Therefore, this impact would be **less than significant with mitigation**.

### *California History and Prehistory*

As described in Section 3.5, "Cultural Resources," no historical resources are located within the Project footprint, and no archaeological resources were identified during the archaeological survey that was conducted for the Proposed Project. Additionally, the Project site is not particularly sensitive to for historic-era archaeological remains, as historic maps and aerial photographs indicate that it has only been used for agricultural purposes prior to construction of the CHP Academy. Nevertheless, it is possible that historic-era archaeological items (most likely agriculturally related items, such as pieces of wire, equipment parts, tin cans, fragments of glass bottles) could be present below-ground. The ground-disturbing activities associated with Project construction (e.g., site clearing and grading, excavation of the drainage system, construction of a gravel road) could potentially encounter these resources, and, if the Project activities were to adversely affect their eligibility for listing in the CRHR, a significant impact could result. Likewise, human remains could potentially be encountered during ground-disturbing activities (although this is considered unlikely); if such remains were not preserved and/or treated correctly, then a significant impact could occur.

The Proposed Project would avoid or substantially reduce potential impacts on cultural resources and TCRs of significance with respect to California history and prehistory by implementing **Mitigation Measures CR-1 through CR-3**. Mitigation Measure CR-1 would require all construction personnel to attend a pre-construction awareness training to learn about the potential for buried archaeological resources. The training will also provide

guidelines for stopping work should any such resources be encountered. Mitigation CR-1 also requires an archaeological monitor to be present onsite to oversee excavations of Channel CH2. Mitigation Measure CR-2 requires that construction activities be immediately halted if any archaeological resources are discovered, and that proper protocols be followed for the archaeological resources to be evaluated and treated as necessary. Mitigation Measure CR-3 would require that construction be immediately halted and that the applicable provisions of the California Health and Safety Code be implemented (e.g., notification of the coroner, and, if applicable, the NAHC and MLD) if human remains are accidentally discovered.

Overall, given the Project site's history of disturbance and lack of cultural resources at the surface, it is considered relatively unlikely that the Project's construction activities would encounter or adversely affect cultural resources, TCRs, or other materials of significance to California history or prehistory. Nevertheless, ground-disturbing activities could encounter buried resources that are currently unknown, and, if proper protocols are not followed, a significant impact could potentially occur. Implementation of Mitigation Measures CR-1 through CR-3 would ensure that the Proposed Project's effects on California history and prehistory would be **less than significant with mitigation**.

## b. Cumulative impacts—*Less than Significant with Mitigation*

A cumulative impact refers to the combined effect of "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines § 15355). Cumulative impacts reflect "the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (CEQA Guidelines § 15355[b]).

Lead agencies may use a "list" approach to identify related projects or may base the identification of cumulative impacts on a summary of projections in an adopted general plan or related planning document (CEQA Guidelines § 15130[b]), also known as the "projection" approach. This document utilizes a combination of the list and projection approaches. Project contributions to localized cumulative impacts (air quality, biological resources, noise and vibrations) are evaluated using the list approach, while Project contributions to regional cumulative impacts (greenhouse gas [GHG] emissions and traffic) are evaluated using the projection approach.

Projects with the potential to contribute to the same cumulative impacts as the Proposed Project are, to a large extent, within close geographic proximity to the Project area, except for certain resources (e.g., air quality, greenhouse gas emissions). **Table 3.21-1** defines the geographic scope that will be used in the impact analysis for applicable resource areas.

**Table 3.21-1**. Geographic Scope for Resources with Potential Cumulative Impacts

| Resource | Scope |
|---|---|
| Air Quality | The Sacramento Valley Air Basin. |
| Biological Resources | Migratory bird nesting sites and natural habitat in the Project site and surrounding area. |
| Greenhouse Gas Emissions | The geographic scope for GHG emissions is the State of California, where GHG policies and regulations have been established. However, the true impact of GHG emissions is global in nature. |
| Noise and Vibrations | Project site and surrounding areas exposed to noise and vibration generated in the Project site. |
| Traffic and Transportation | City of West Sacramento roadways that experience traffic generated by the Proposed Project. |

The list approach is applied by developing a list of past, present, and reasonably foreseeable projects. Projects considered in this analysis are listed in **Table 3.21-2**. The list of projects used for this analysis was developed by identifying projects listed in the CEQAnet database. Several of these projects may have construction activities occurring at the same time as the Proposed Project. While not every possible cumulative project is likely listed, the list of cumulative projects is believed to be comprehensive and representative of the types of impacts that would be generated by other projects related to the Proposed Project. The cumulative impact evaluation assumes that the impacts of past and present projects are represented by baseline conditions, and cumulative impacts are considered in the context of baseline conditions alongside reasonably foreseeable future projects.

**Table 3.21-2**. List of Reasonably Foreseeable Future Projects that May Cumulatively Affect Resources of Concern for the Proposed Project

| Project Number | Project Title | Brief Project Description | Distance from Project |
|---|---|---|---|
| 1 | Southport Sacramento River Early Implementation Project | This project involves vegetation of 120 acres that was created to mitigate project impacts of the West Sacramento levee improvements projects. This project's NOD was posted on CEQAnet in 2019. | 4 miles southeast |
| 2 | Fallbrook/Westmore Oaks Modernization Project | The project involves modernizing the existing school campus. The existing high school student body would be transferred to the District's Bryte College and Career Training campus. The existing student population from the District's campus currently operated as the "Westmore Oaks Elementary School" would be transferred to the modernized K-8 school campus at the project site (CEQAnet 2019). This project's MND was posted on CEQAnet in 2019. | 2.3 miles southeast |

| Project Number | Project Title | Brief Project Description | Distance from Project |
|---|---|---|---|
| 3 | West Capitol Road Rehabilitation Project | This project proposed to rehabilitate deteriorating pavement, implement safety improvements, including adding separated bike lanes, enhancing the mid-block crossings for pedestrians, and improving lighting. In addition, vehicle travel lanes along segments of the project area would be modified, and traffic signalization would be upgraded (CEQAnet 2019). This project's MND was posted on CEQAnet in 2019. | 1.2 miles south |
| 4 | River Walk Trail Extension Project | This project will construct approximately 2,650 feet of class I multi-use trail along the top of the Sacramento River levee adjacent to the Sacramento River channel in West Sacramento. Improvements would occur from the existing I Street Bridge north to Broderick Boat Ramp (CEQAnet 2019). This project's MND was posted on CEQAnet in 2018. | 2.8 miles east |
| 5 | Sycamore Trail Phase II and III Extension Project | The project will extend the Sycamore Trail from Evergreen Ave north of US Route 50, connecting Joey Lopes Park to the north with Westmore Oaks ES to the south, including a new pedestrian and bicycle overcrossing over US 50. The project will also extend the Sycamore Trail from Evergreen Ave north of US 50 to the intersection of Park and Stone Boulevards near the Deep Water Shipping Channel. The project would generally follow the Sacramento Regional County Sanitation District Northwest Interceptor Alignment (CEQAnet 2019). This project's MND was posted on CEQAnet in 2018. | 2.4 miles southeast |
| 6 | California Highway Patrol Academy Deferred Maintenance Projects and Renovations | The proposed project included replacement of the existing main domestic water and hydronic valves campus wide, repavement of the existing Defensive Driving and Motorcycle Network course, and paving a 3,190 square feet access road (CEQAnet 2019). This project's Notice of Exemption was posted on CEQAnet in 2017. | Located directly adjacent to Project site |

Detailed analysis of a project's contribution to cumulative impacts is required when (1) a cumulative impact to which a project may contribute is expected to be significant, and (2) the project's contribution to the cumulative impact is expected to be cumulatively considerable, or significant in the context of the overall (cumulative) level of effect. **Table 3.21-3** summarizes cumulatively significant impacts and identifies the Proposed Project's contribution. Additional analysis follows for those impacts to which the Proposed Project would contribute.

**Table 3.21-3**. Summary of Cumulative Significant Impacts and Proposed Project's Contribution

| Resource Topic | Cumulatively Significant Impacts | Proposed Project's Contribution |
|---|---|---|
| Aesthetics | None identified. | No analysis required. |
| Agricultural Resources | None identified. | No analysis required. |
| Air Quality | The Sacramento Valley Air Basin in Yolo County, within which the Proposed Project would be located, is designated as a federal and state non-attainment area for ozone, a federal non-attainment area for PM2.5, and a state non-attainment area for PM10. The Sacramento Valley Air Basin within Yolo County is in attainment or unclassified for all other federal and state criteria air pollutants. | Construction of the Proposed Project would not increase emissions above YSAQMD's cumulative thresholds for significant air quality impacts. The Project's contribution would therefore be less than considerable. |
| Biological Resources | Past and present actions in Yolo County, including widespread urban development, have adversely affected regionally sensitive biological resources. Although Yolo County is home to many special-status species, these species face threats from any number of development projects and human activities. | The Proposed Project would be unlikely to substantially affect biological resources, including special-status species. Due to the Project site's location within the CHP Academy campus, there is minimal suitable habitat on the site or nearby populations of special-status species, from which individuals could stray. Although the Project could potentially impact nesting birds, if such birds were to be present during construction activities, implementation of Mitigation Measure BIO-3 would reduce this possible impact to a level that is less than significant. The Project's contribution to the cumulatively significant impact would not be considerable. |
| Cultural Resources | Throughout California, the Native American cultural legacy, including culturally important sites and traditional cultural practices, has been substantially affected by land management practices and urbanization over the past 150 years. While the City and County general plans of various jurisdictions contain policies regarding preservation of important cultural resources, ongoing development could lead to the cumulative loss of significant historic, archeological, and paleontological resources. This impact would be considered cumulatively significant. | The Proposed Project would not impact any known cultural resources, as no cultural resources were identified on the site based on the record search and archaeological survey. Nevertheless, Project construction activities could encounter buried unknown cultural resources, including archaeological or paleontological finds, or human remains. With implementation of Mitigation Measures CR-1, CR-2, and CR-3, the Proposed Project's effects on cultural resources would be less than significant. Likewise, the Project's contribution to cumulatively significant impacts would be less than considerable. |
| Geology, Soils, and Seismicity | None identified. | No analysis required. |

| Resource Topic | Cumulatively Significant Impacts | Proposed Project's Contribution |
|---|---|---|
| Greenhouse Gas Emissions | Anthropogenic emissions of GHGs are widely accepted in the scientific community as contributing to global warming. This impact is considered cumulatively significant. | Use of construction equipment and vehicles during Project construction would emit GHGs. However, these emissions would be below applicable SMAQMD significance thresholds, and, likewise, would be considered less than cumulatively considerable. |
| Hazards and Hazardous Materials | Numerous unauthorized material releases have affected the Project site, which has resulted in soil, groundwater and well contamination. Additionally, there is a closed LUST cleanup site approximately 350 feet north of Reed Avenue, and a permitted UST located in the center of the CHP Academy campus, approximately 0.2 mile south of the canine training facility. There is an open cleanup site at the Bryte Bend Water Treatment Plant and a closed DTSC cleanup site previously used by the U.S. Army for river and harbor access along North Harbor Boulevard (SWRCB 2015). | Construction activities would require on-site handling of hazardous materials, such as fuels, lubricating fluids, and solvents. Accidental spills of these materials could be considered cumulatively considerable; however, implementation of HAZ-1 would reduce the Project's contribution to cumulatively significant impacts to less than considerable. |
| Hydrology and Water Quality | The portion of the Sacramento River near the Project site is listed on the CWA 303(d) list of impaired water body segments for chlordane, DDT, dieldrin, mercury, PCBs, and toxicity (SWRCB 2017). Channel RAI (northwestern portion of Delta Waterways) is listed as impaired for chlorpyrifos, DDT, diazinon, electrical conductivity, Group A pesticides, invasive species, mercury, toxicity (SWRCB 2017). | Construction of the Proposed Project would not contribute substantial sources of polluted runoff that would adversely affect the Sacramento Bypass Wildlife Area and Yolo Bypass. |
| Land Use and Planning | None identified. | No analysis required. |
| Mineral Resources | None identified. | No analysis required. |
| Noise | The Project's location within the CHP Academy where there is existing sources of noise, and the distance from sensitive receptors would not cause this Project to contribute to cumulative significant impacts. | No analysis required. |
| Population and Housing | None identified. | No analysis required. |
| Public Services | None identified. | No analysis required. |
| Recreation | None identified. | No analysis required. |

| Resource Topic | Cumulatively Significant Impacts | Proposed Project's Contribution |
|---|---|---|
| Transportation and Traffic | Future increased growth in traffic volumes in the County could affect load and capacity of the street system. The Proposed Project would not contribute cumulative significant impacts as the Project is located within a half mile of multiple bus stops and is adjacent to an arterial road that connects to Interstate 80, and generates fewer than 110 daily trips. | No analysis required. |
| Utilities and Service Systems | None identified. | No analysis required. |

The following sections provide a detailed analysis of the Proposed Project's contribution to existing significant cumulative impacts. As identified in Table 3.21-3, the following resource issues are discussed: air quality, biological resources, cultural resources, greenhouse gases, hazards and hazardous materials, and hydrology and water quality.

### *Air Quality: Emissions of Criteria Air Pollutants – Less Than Significant*

Yolo County is located in a non-attainment area for ozone, PM10, and PM2.5. Construction of the Project would involve operation of construction equipment, material hauling, ground disturbance and vehicle usage that would emit criteria air pollutants and fugitive dust. Project-related construction emissions are minimal and below the YSAQMD's significance thresholds, which means they are unlikely to result in a cumulatively considerable impact. Therefore, the Proposed Project would not have a considerable contribution to this cumulative effect. This impact is less than significant.

### *Biological Resources: Impacts to Special-Status Species – Less Than Significant with Mitigation*

As described in Section 3.4, "Biological Resources," and under "a" above, the Proposed Project area consists of freshwater wetland, California grassland, riparian woodland, and ruderal/developed areas. It provides suitable habitat for 7 special-status species. Valley elderberry beetle could be present on the elderberry shrub located east of the proposed spoils storage area northeast of the Project site. Western pond turtle could utilize adjacent grasslands for nesting. Swainson's hawk and white-tailed kite could utilize the Project site and surrounding areas for nesting and foraging. Pallid bat, silver-haired bat, and hoary bat could utilize trees in the Project site for roosting. Additionally, nesting birds protected under the Migratory Bird Treaty Act could nest in trees within the Project site. **Mitigation Measures BIO-1 through BIO-4** would avoid or minimize potential for adverse impacts to these species, if they were to be present during Project construction activities. These mitigation measures are discussed under "a" above as well as in Section 3.4, "Biological Resources."

Upon implementation of the mitigation measures, the Proposed Project will have less than significant impacts on biological resources. None of the past, present, and reasonably foreseeable projects identified in the area of the Proposed Project (see Table 3.21-2) would

be anticipated to have especially significant biological resources impacts, as all of the projects are within previously or currently developed areas, have mitigation measures to offset biological impacts, or are not near large tracts of open space or nature preserves. Given the Proposed Project's minimal potential for impacts, and implementation of Mitigation Measures BIO-1 through BIO-4, the Project's contribution to cumulatively significant impacts on biological resources is considered less than considerable. This impact would be **less than significant with mitigation.**

### *Cultural Resources: Impacts to Unknown Cultural Resources – Less than Significant with Mitigation*

The record search and archaeological survey conducted for the Proposed Project did not find any significant cultural resources on the Project site. Nevertheless, there may be buried unknown archeological or paleontological resources, or human remains within the Project site that could potentially be discovered during Project construction activities. As described in Section 3.5, "Cultural Resources," and under "a" above, implementation of **Mitigation Measures CR-1**, **CR-2**, and **CR-3** would avoid or minimize potential for the Project to adversely impact these resources, were they do exist.

Other projects in the area of the Proposed Project could impact buried unknown cultural resources to the extent that they involve excavation and/or ground disturbance. The past, present, and reasonably foreseeable projects listed in Table 3.21-2 would likely have a similar, if reduced, potential to impact buried cultural resources as the Proposed Project, given that all the projects would occur in previously developed areas (i.e., not "greenfield" sites) and would involve relatively minimal excavation, or none at all. Overall, given the limited size of the Proposed Project and implementation of effective mitigation measures, the Proposed Project would not significantly affect cultural resources, and its contribution to cumulatively significant impacts would be less than considerable. Therefore, this impact would be **less than significant with mitigation.**

### *Greenhouse Gas Emissions: Emissions of GHGs—Less than Significant*

As noted in Table 3.21-3, climate change is a global issue that is inherently cumulative in nature, as anthropogenic GHG emissions are generally believed to be one of the primary drivers. As described in Section 3.8, "Greenhouse Gas Emissions," the Proposed Project would emit some GHGs during construction (e.g., from operation of construction equipment, vehicle trips by CHP officers and staff, etc.); however, these emissions would be below applicable thresholds of significance established by SMAQMD.

Virtually all development projects contribute some level of GHG emissions because, at a minimum, such projects require operation of heavy equipment in their construction. Therefore, all of the reasonably foreseeable project nearby the Project site identified in Table 3.21-2 would contribute GHG emissions; however, these individual projects also may not exceed significance thresholds. While any level of GHG emissions can be considered to contribute to global climate change, given that the Proposed Project's emissions would be below SMAQMD significance thresholds, its contribution to cumulatively significant impacts is considered less than considerable. Therefore, this impact would be **less than significant.**

### *Hazards and Hazardous Materials: Accidental Spill – Less than Significant with Mitigation*

The Proposed Project would be required to comply with all regulations established by DTSC, USEPA, OSHA, Cal OES, CUPA, and Cal/OSHA so that there would be no substantial risks resulting from accidental spills or improper use, storage, transport, or disposal of hazardous materials. Additionally, as described in Section 3.10, "Hydrology and Water Quality," a SWPPP would be prepared that would include appropriate spill prevention BMPs to prevent or minimize potential hazardous material releases. Through compliance with the regulations, and upon implementation of a SWPPP and Mitigation Measure HAZ-1, the Proposed Project will not contribute to cumulatively significant impacts and this impact would be **less than significant with mitigation**.

### *Hydrology and Water Quality: Contributions to Water Quality Impairments – Less than Significant*

During construction, the Proposed Project would implement BMPs for erosion control and hazardous materials management included as part of the SWPPP that would be required pursuant to the NPDES General Construction Permit. These measures would be anticipated to prevent or minimize sediment and construction-related contaminants from disturbed areas from discharging to the stormwater collection system and reaching surface waters.

Stormwater runoff from the Proposed Project would be conveyed through Channel CH2 and then into downstream waterbodies, including the Sacramento Bypass Wildlife Area and Yolo Bypass. Stormwater discharges would be in accordance with CWA Section 402 regulations. Overall, the Proposed Project would not make a considerable contribution to existing cumulative impacts related to water quality impairment. Therefore, this impact would be **less than significant**.

### *Conclusion*

In summary, the Proposed Project would not contribute considerably to any cumulatively significant impacts. With implementation of applicable mitigation measures, all impacts would be **less than significant with mitigation**.

## c. Have a substantial adverse effect on human beings, either directly or indirectly—*Less than Significant*

A project could have adverse effects on human beings if it were to expose construction workers or the public to hazardous materials, or expose people to hazards from wildfire, flooding, seismicity, or other dangers. The analysis described in Section 3.9, "Hazards and Hazardous Materials," found that the Proposed Project would not pose a substantial hazard to human health given compliance with existing laws and regulations related to hazardous materials. The Proposed Project would follow OSHA regulations for worker safety and SWPPP requirements for management of hazardous materials during construction. The Proposed Project is located in the floodplain of the Sacramento River in a FEMA-designated Zone-X, with a 0.1 percent annual chance of flooding. However, the Project site itself will not involve the long-term use or storage of chemicals, other than temporarily during construction. Additionally, the Project involves improvements to Channel CH2, which will

improve stormwater conveyance and reduce the potential for flooding. The Proposed Project is not within a tsunami zone. Section 3.20, "Wildfire," indicates that the Proposed Project would not be located in a Very High Fire Hazard Severity Zone, although there are areas adjacent to the Project site designated as LRA Moderate. The Project, however, would be required to comply with CAL FIRE's Wildland Fire Management's Public Resource Code as discussed in Section 3.9, "Hazards and Hazardous Materials", as well as with all applicable federal, local, and state fire prevention regulations, including the California Fire Code. As a result, the Proposed Project would not subject individuals to hazards from seismicity, flooding, tsunamis, or wildfire. Overall, given compliance with existing laws and regulations, and the mitigation measures stated above, the Proposed Project would not have adverse effects on human beings. This impact would be **less than significant**.

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# Chapter 4.
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