HELIX Environmental Planning

# Harney Lane Bridge No. 29C-341 Scour Mitigation Across Paddy Creek Project

## Federal Project No: BPMPL-5929(262)

## Public Review Draft
## Initial Study/Mitigated Negative Declaration

April 2024 | 02593.00001.002

*Prepared for:*

**San Joaquin County**
**Department of Public Works**
1810 East Hazelton Avenue
Stockton, CA 95205

*Prepared by:*

**HELIX Environmental Planning, Inc.**
1180 Iron Point Road, Suite 130
Folsom, CA 95630

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# Table of Contents

# Table of Contents (cont.)



**LIST OF APPENDICES**



**LIST OF TABLES**

# Acronyms and Abbreviations

| | |
|---|---|
| AB | Assembly Bill |
| ACB | Articulated Concrete Block |
| ACM | Asbestos-Containing Materials |
| ADL | Aerially Deposited Lead |
| AG-40 | General Agriculture, 40 acres |
| AL-5 | Limited Agriculture, 5 acres |
| amsl | above mean sea level |
| APS | alternative planning strategy |
| ARD | Aquatic Resources Delineation |
| ASTM | American Society of Testing and Materials |
| | |
| bcf/year | billion cubic feet per year |
| BMPs | Best Management Practices |
| BPS | Best Performance Standards |
| BSA | Biological Study Area |
| | |
| CAL FIRE | California Department of Forestry and Fire Protection |
| Caltrans | California Department of Transportation |
| CAP | Climate Action Plan |
| CAPCOA | California Air Pollution Control Officers Association |
| CARB | California Air Resources Board |
| CASQA | California Stormwater Quality Association |
| CCR | California Code of Regulations |
| CCV | California Central Valley |
| CDFW | California Department of Fish and Wildlife |
| CDPH | California Department of Public Health |
| CEC | California Energy Commission |
| CEQA | California Environmental Quality Act |
| $CH_4$ | methane |
| CNDDB | California Natural Diversity Database |
| CNPS | California National Plant Society |
| CO | carbon monoxide |
| $CO_2$ | carbon dioxide |
| $CO_2e$ | carbon dioxide equivalent |
| COC | constitutes of concern |
| County | San Joaquin County |
| CRHR | California Register of Historic Resources |
| CWA | Clean Water Act |
| CY | cubic yard |
| | |
| dB | decibel |
| dBA | A-weighted decibel |
| DOC | California Department of Conservation |
| DPM | diesel particulate matter |
| DTSC | Department of Toxic Substances Control |

# Acronyms and Abbreviations (cont.)

| | |
|---|---|
| EFH | Essential Fish Habitat |
| EIR | Environmental Impact Report |
| EO | Executive Order |
| ESA | Environmentally Sensitivity Area |
| FEMA | Federal Emergency Management Agency |
| FHWA | Federal Highway Administration |
| FIRM | Flood Insurance Rate Maps |
| GGS | Giant Garter Snake |
| GHG | greenhouse gases |
| GWh | gigawatt hour |
| GWP | global warming potential |
| HAPC | Habitat Areas of Particular Concern |
| HFC | hydrofluorocarbon |
| HPSR | Historic Property Survey Report |
| Hz | hertz |
| I | Interstate |
| IBA | Important Bird Areas |
| In/sec | inches per second |
| IPaC | Information for Planning and Consultation |
| IPCC | International Panel on Climate Change |
| IS/MND | Initial Study/Mitigated Negative Declaration |
| ISA | Initial Site Assessment |
| ISR | Indirect Source Review |
| LCFS | Low Carbon Fuel Standard |
| LEA | Local Enforcement Agency |
| LOS | level of service |
| LRA | Local Responsibility Area |
| MBTA | Migratory Birds Treaty Act |
| MLD | Most Likely Descendant |
| MMRP | Mitigation Monitoring and Reporting Program |
| MSEI | Mobile Source Emissions Inventory |
| MT | metric ton |
| $N_2O$ | nitrous oxide |
| NAHC | Native American Heritage Commission |
| NEPA | National Environmental Policy Act |
| NESMI | Natural Environment Study (Minimal Impacts) |

# Acronyms and Abbreviations (cont.)

| | |
|---|---|
| NMFS | National Marine Fisheries Service |
| $NO_X$ | nitrogen oxides |
| NPDES | National Pollutant Discharge Elimination System |
| NRHP | National Register of Historic Places |
| NSLU | noise-sensitive land use |
| | |
| OHP | Office of Historic Preservation |
| OMR | Office of Mining Reclamation |
| OS/RC | Open Space/Resource Conservation |
| OSFM | Office of the State Fire Marshal |
| | |
| Pb | lead |
| PFC | perfluorocarbons |
| PG&E | Pacific Gas and Electric |
| $PM_{10}$ | particulate matter, 10 microns or less in diameter |
| $PM_{2.5}$ | particulate matter, 2.5 microns or less in diameter |
| PPV | Peak particle velocity |
| PRC | Public Resources Code |
| PSI | Preliminary Site Investigation |
| | |
| REC | recognized environmental condition |
| ROG | reactive organic gases |
| ROW | right of way |
| RTD | Regional Transit District |
| RTP | Regional Transportation Plan |
| RWQCB | Regional Water Quality Control Board |
| | |
| SB | Senate Bill |
| SCS | Sustainable Communities Strategy |
| $SF_6$ | sulfur hexafluoride |
| SJCDPW | San Joaquin County Department of Public Works |
| SJCEHD | San Joaquin County Environmental Health Department |
| SJMSCP | San Joaquin County Multi-Species Habitat Conservation and Open Space Plan |
| SJCOES | San Joaquin County Office of Emergency Services |
| SJCOG | San Joaquin Council of Governments |
| SJVAB | San Joaquin Valley Air Basin |
| SJVAPCD | San Joaquin Valley Air Pollution Control District |
| SMAQMD | Sacramento Metropolitan Air Quality Management District |
| $SO_2$ | sulfur dioxide |
| $SO_X$ | sulfur oxides |
| SR | State Route |
| SUV | sports utility vehicle |
| SWPPP | Stormwater Pollution Prevention Plan |
| SWRCB | State Water Resources Control Board |

# Acronyms and Abbreviations (cont.)

| | |
|---|---|
| TAC | toxic air contaminant |
| TCE | Temporary Construction Easement |
| TCR | Tribal Cultural Resource |
| USACE | U.S. Army Corps of Engineers |
| USEPA | U.S. Environmental Protection Agency |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | U.S. Geological Survey |
| VHFHSZ | very high fire hazard severity zone |
| VMT | vehicles miles traveled |
| WPCP | Water Pollution Control Program |
| WPT | Western Pond Turtle |

# 1.0 INTRODUCTION

## INITIAL STUDY INFORMATION SHEET

| | | |
|---|---|---|
| 1. | Project title: | Harney Lane Bridge No. 29C-341 Scour Mitigation Across Paddy Creek Project |
| 2. | Lead agency name and address: | San Joaquin County Department of Public Works<br>1810 East Hazelton Avenue<br>Stockton, CA 95205 |
| 3. | Contact person and phone number: | Jeffery Verstl, Engineering Assistant III<br>jverstl@sjgov.org<br>(209) 953-7600 |
| 4. | Project location: | Harney Lane, between State Route (SR) 88 and Jack Tone Road, San Joaquin County, CA 95240 |
| 5. | General plan designation: | Resource Conservation (OS/RC) |
| 6. | Zoning: | General Agriculture, 40 acres (AG-40) and Limited Agriculture, 5 acres (AL-5) |

7. Description of project:

The existing Harney Lane Bridge is an approximately 86-foot long, three-span, reinforced concrete slab structure. Due to channel degradation over time, bridge piers and the top of the west abutment footing have become exposed. The original scour protection measures that were implemented consisted of placing cobbles of quarry rock around the piers; however, over time, the scour protection washed downstream. Between 2011 and 2013, in an effort to protect the piers and banks at the abutments, the San Joaquin County Maintenance Department placed non-engineered riprap on the channel bottom around the pier columns and on the banks under the bridge until proposed project improvements could be installed. The riprap material consists of broken concrete and quarry rock of varying size and shape. No material was placed in the center of the channel between the piers.

To provide scour protection, the San Joaquin County Department of Public Works is proposing to install open cell articulated concrete block (ACB) around the piers and abutments. The ACB would be placed on geotechnical fabric, and the open cells would be filled with aggregate. While the maximum depth of excavation is anticipated to be 3 feet, the exact depth would be determined during final design of the improvements. The majority of work is planned to be confined to Harney Lane right-of-way (ROW); however, forming of the cut-off wall would require construction crews to work outside the Harney Lane ROW. All aggregate material to be used for scour protection would be sourced from a permitted quarry.

8. Surrounding land uses and setting:

Terrain in the project site is generally flat with an elevation of approximately 77 feet above mean sea level (amsl). Paddy Creek transects the project site underneath Harney Lane. The Paddy Creek drainage originates approximately 7.8 miles northeast of the project site and travels southwest, where it is

ultimately a tributary to the San Joaquin River. The project site is surrounded by rural residences and agricultural fields to the north, south, east, and west.

9. Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement:

    - California Department of Fish and Wildlife (CDFW)
    - California Department of Transportation (Caltrans)
    - Office of Historic Preservation (OHP)
    - Regional Water Quality Control Board (RWQCB)
    - U.S. Army Corps of Engineers (USACE)

10. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code (PRC) Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Formal invitations to participate in Assembly Bill (AB) 52 consultation on the proposed project were sent by Cogstone Resource Management to four tribal representatives on December 18, 2023. The representatives included:

- Crystal Martinez, Ione Bank of Miwok Indians
- Randy Yonemura, Ione Bank of Miwok Indians
- Gene Whitehouse, United Auburn Indian Community of the Auburn Rancheria
- Antonio Ruiz, Jr, Wilton Rancheria

Each tribe was provided a brief description of the project and its location, the contact information for the County's authorized representative, and a notification that the tribe has 30 days to request consultation. On January 29, 2024, a tribal representative of the Wilton Rancheria emailed the County requesting implementation of their Inadvertent Discovery Treatment Plan. No further responses from Wilton Rancheria or other tribes were received; therefore, the County has formally concluded consultation pursuant to PRC Sections 21080.3.2(b)(1) and 21082.3(d)(1).

# 2.0 PROJECT BACKGROUND

The San Joaquin County Department of Public Works (SJCDPW) Transportation Engineering Division (project applicant) proposes the Harney Lane Bridge No. 29C-341 Scour Mitigation Across Paddy Creek Project (project), which includes design and installation of scour mitigation measures underneath Harney Lane Bridge. The project site is located on Harney Lane, approximately 5 miles east of the City of Lodi in unincorporated San Joaquin County, California.

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared to satisfy the requirements of the California Environmental Quality Act (CEQA; PRC Section 21000 et seq.) and the CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). CEQA requires that State and local government agencies consider the environmental consequences of projects over which they have discretionary authority before they approve or implement those projects.

The IS/MND is a public document used by the decision-making Lead Agency to determine whether a project may have a significant effect on the environment. The project is proposed by SJCDPW Transportation Engineering Division and San Joaquin County (County) will act as the CEQA Lead Agency. The County will use the IS/MND to determine whether the proposed project has a significant effect on the environment. This IS/MND relies on CEQA Guidelines Sections 15064 and 15064.4 in its determination of the significance of the environmental impacts. Per Section 15064, the finding as to whether a project may have one or more significant impacts shall be based on substantial evidence in the record, and that controversy alone, without substantial evidence of a significant impact, does not trigger the need for an Environmental Impact Report (EIR).

California Department of Transportation (Caltrans) would be the National Environmental Policy Act (NEPA) Lead Agency.

# 3.0 PURPOSE AND NEED

The purpose of the Harney Lane Bridge No. 29C-341 Scour Mitigation Across Paddy Creek Project is to design and install scour mitigation measures under the bridge in conformance with Federal Highway Administration (FHWA) and Caltrans guidelines. The proposed project is needed as the current bridge piers and top of the west abutment footing underneath the Harney Lane Bridge have been become exposed due to channel degradation over time.

# 4.0 PROJECT LOCATION AND SETTING

The project site is located on Harney Lane, between SR 88 and Jack Tone Road, approximately 5 miles east of the City of Lodi in unincorporated San Joaquin County, California. The 0.36-acre project site is located within a portion of Section 24, Township 3 North, Range 7 East on the U.S. Geological Survey (USGS) *Waterloo*, *California* 7.5-minute quadrangle (38.1017162° North, 121.1682733° West). See Figure 1 for the project vicinity map, Figure 2 for the project location map, and Figure 3 for the project aerial photograph in Appendix A.

The project site has a County General Plan land use designation of Resource Conservation (OS/RC). The project site is partially zoned General Agriculture, 40 acres (AG-40) and Limited Agriculture, 5 acres (AL-5) by the County. However, all project work would take place underneath Harney Lane.

Terrain in the project site is generally flat with an elevation of approximately 77 feet amsl. Paddy Creek transects the project site underneath Harney Lane. The Paddy Creek drainage originates approximately 7.8 miles northeast of the project site and travels southwest, where it is ultimately a tributary to the San Joaquin River. The project site is surrounded by rural residences and agricultural fields to the north, south, east, and west.

# 5.0 PROJECT DESCRIPTION

The existing Harney Land Bridge is an approximately 86-foot long, three-span, reinforced concrete slab structure. Due to channel degradation over time, bridge piers and the top of the west abutment footing have become exposed. The original scour protection consisted of placing cobbles of quarry rock around the piers; however, over time, the scour protection washed downstream. Between 2011 and 2013, in an effort to protect the piers and banks at the abutments, the San Joaquin County Maintenance Department placed non-engineered riprap on the channel bottom around the pier columns and on the banks under the bridge until proposed project improvements could be installed. The riprap material consists of broken concrete and quarry rock of varying size and shape. No material was placed in the center of the channel between the piers.

To provide scour protection, the SJCDPW is proposing to install open cell ACB around the piers and abutments. The ACB would be placed on geotechnical fabric, and the open cells would be filled with aggregate. While the maximum depth of excavation is anticipated to be 3 feet, the exact depth would be determined during design of the improvements. The majority of work is planned to be confined to Harney Lane ROW; however, forming of the cut-off wall would require construction crews to work outside the Harney Lane ROW. All aggregate material to be used for scour protection would be sourced from a permitted quarry. No work is proposed on the bridge structure itself. See Figure 4 in Appendix A for the proposed project map.

## Utilities

No utility relocations are expected. All existing utilities (electric and telephone/cable) within the project area are aerial. There is no indication of any underground utilities within the planned work area.

## Trees, Vegetation, and Riprap

There are no trees within the planned work area surrounding the bridge, and no tree removal would be required to install scour protection. Vegetation removal may be necessary to install the ACB in the creek. The existing riprap would be removed, and any excavated material would be taken to an appropriately permitted location for disposal.

## Construction Staging Areas

Construction staging would occur within the existing Harney Lane ROW. No permanent ROW is anticipated; however, a Temporary Construction Easement (TCE) would be required for contractor access and staging as well as for the work performed to form the cut-off wall.

## Construction Schedule

Construction of the proposed project would commence in May 2026 and would take three to four months to complete. Excavation is expected to generate approximately 60 cubic yards (CY) of debris and 710 CY of aggregate and soil to be exported to the North County Recycling Center and Sanitary Landfill approximately 3.75 miles east of the project site along Harney Lane. Additionally, approximately 60 CY of aggregate would be imported to fill the ACB. Work would occur when Paddy Creek is dry, and no diversion or dewatering is anticipated. A temporary construction entrance would be located on the northern side of Harney Lane, west of Paddy Creek. Project duration is expected to last only one season. Harney Lane is anticipated to remain open during construction.

# 6.0 REQUIRED APPROVALS

A listing and brief description of the approvals and/or regulatory permits required to implement the Harney Lane Bridge No. 29C-341 Scour Mitigation Across Paddy Creek project are provided below. This environmental document is intended to address the environmental impacts associated with the following discretionary actions and approvals.

## County of San Joaquin

- **Consideration of the Environmental Document:** The County of San Joaquin will act as the Lead Agency as defined by CEQA and will have authority to determine if the environmental document is adequate under CEQA and the State CEQA Guidelines.

- **Project Approval:** The County of San Joaquin Board of Supervisors will consider approval of the project.

## Other Agencies

- **Caltrans:** Caltrans will act as the Lead Agency as defined by NEPA.

- **CDFW:** Obtain a Fish and Game Code Section 1602 Lake and Streambed Alteration Agreement from CDFW (Region 2, North Central Region).

- **Central Valley Flood Protection Board:** Obtain an encroachment permit from the Central Valley Flood Protection Board.

- **RWQCB:** Obtain a CWA Section 401 Water Quality Certification from the Central Valley RWQCB (Region 5).

- **USACE:** Obtain authorization under a Clean Water Act (CWA) Section 404 Nationwide Permit 14, Linear Transportation Projects, from the USACE to discharge dredged or fill material.

# 7.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

| | | |
|---|---|---|
| ☐ Aesthetics | ☐ Agriculture and Forestry Resources | ☐ Air Quality |
| ☒ Biological Resources | ☒ Cultural Resources | ☐ Energy |
| ☒ Geology and Soils | ☐ Greenhouse Gas Emissions | ☒ Hazards and Hazardous Materials |
| ☒ Hydrology and Water Quality | ☐ Land Use and Planning | ☐ Mineral Resources |
| ☐ Noise | ☐ Population and Housing | ☐ Public Services |
| ☐ Recreation | ☐ Transportation | ☒ Tribal Cultural Resources |
| ☐ Utilities and Service Systems | ☐ Wildfire | ☐ Mandatory Findings of Significance |

# 8.0 DETERMINATION

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 I) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

| | |
|---|---|
| Signature | Date |
| Printed Name | For |

# 9.0 ENVIRONMENTAL INITIAL STUDY CHECKLIST

The Lead Agency has defined the column headings in the environmental checklist as follows:

A. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

B. "Less Than Significant with Mitigation Incorporated" applies where the inclusion of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." All mitigation measures are described, including a brief explanation of how the measures reduce the effect to a less than significant level. Mitigation measures from earlier analyses may be cross-referenced.

C. "Less Than Significant Impact" applies where the project does not create an impact that exceeds a stated significance threshold.

D. "No Impact" applies where a project does not create an impact in that category. "No Impact" answers do not require an explanation if they are adequately supported by the information sources cited by the Lead Agency which show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project specific screening analysis).

The explanation of each issue identifies the significance criteria or threshold used to evaluate each question; and the mitigation measure identified, if any, to reduce the impact to less than significance. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration [CEQA Guidelines Section 15063(c)(3)(D)]. Where appropriate, the discussion identifies the following:

a) Earlier Analyses Used. Identifies where earlier analyses are available for review.

b) Impacts Adequately Addressed. Identifies which effects from the checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and states whether such effects were addressed by mitigation measures based on the earlier analysis.

c) Mitigation Measures. For effects that are "Less Than Significant with Mitigation Incorporated," describes the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

# I. 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) | 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). | ☐ | ☐ | ☒ | ☐ |
| d) | Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | ☐ | ☐ | ☒ | ☐ |

**Environmental Setting**

San Joaquin County is set within the greater San Joaquin Valley, with the Sacramento-San Joaquin Delta (Delta) and large expanses of level, agricultural lands and urban development framed by the foothills of the Diablo Range to the west and with the foothills of the Sierra Nevada to the east. The foothills of the Diablo Range separate San Joaquin County from Alameda County and Contra Costa County to the west, with the main access between these counties being Interstate (I-) 205, which cuts through the Altamont Pass. The eastern portion of San Joaquin County, and adjoining Amador County and Calaveras County to the east, share the rolling terrain of the Sierra Nevada foothills. To the south, the Stanislaus River separates San Joaquin County from Stanislaus County. Other major rivers passing through San Joaquin County include the San Joaquin River, the Calaveras River, the Mokelumne River, and Dry Creek. Agricultural uses make up about 83 percent of the unincorporated lands within the County, with urban development concentrated in the seven incorporated cities of the County (County 2014).

The County has designated 26 local roadways as local scenic routes. County-designated scenic roadways include I-5, SR 4, and SR 99 (County 2016). According to Caltrans State Scenic Highway Map, SR 160 and I-580 are officially designated as State scenic highways (Caltrans 2023). Harney Lane is not classified as a local scenic route (County 2014).

The major scenic vistas in San Joaquin County are provided by the east-west travel corridors that provide views of the Sierra Nevada foothills and the Diablo Range. These visual resources within the County are also visible from I-5 and I-580, the two major highways within the County. More “close-in” scenic vistas are also available including viewing lands under agricultural production, vineyards, and orchards. Views of major river corridors are most clearly visible from parklands that adjoin the rivers, as the motorist often catches only a quick glimpse of the river corridors while crossing bridges (County 2014).

**Impact Analysis**

a) Have a substantial adverse effect on a scenic vista?

**Less than significant impact.** A scenic vista is defined as a viewpoint that provides an expansive view of a highly valued landscape for the benefit of the general public. As noted above, the major scenic vistas in the County include views of the Sierra Nevada foothills, Diablo Range, and viewing lands under agricultural production, vineyards, and orchards. Implementation of the proposed project would provide scour mitigation underneath Harney Lane Bridge. No work is proposed on the bridge structure itself. Construction of the scour mitigation would include staging areas within Harney Lane ROW; however, all construction and staging areas would be short-term and temporary and would not have a substantial adverse effect on a scenic vista. Therefore, the project would not have a substantial adverse effect on a scenic vista, and the impact would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

**No impact.** Implementation of the proposed project would provide scour mitigation underneath Harney Lane Bridge; no work is proposed on the bridge structure itself. According to Caltrans State Scenic Highway Map, SR 160 and I-580 are officially designated as State scenic highways (Caltrans 2023). The project site is located approximately 21 miles southeast of SR 160 and approximately 32 miles northeast of I-580. Due to the distance from SR 160 and I-580, the proposed project would not damage scenic resources within a State scenic highway. Therefore, no impact would occur.

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).

**Less than significant impact.** Implementation of the proposed project would provide scour mitigation underneath Harney Lane Bridge. No work is proposed on the bridge structure itself. Scour mitigation would include open cell ACB around the piers and abutments. The ACB would be placed on geotechnical fabric, and the open cells would be filled with aggregate. While the maximum depth of excavation is anticipated to be 3 feet, the exact depth would be determined during final design of the improvements. Construction of the scour mitigation would include staging areas within Harney Lane ROW; however, all construction and staging areas would be short-term and temporary. The project site is located in a non-urbanized area of the County. The visual character of Harney Lane Bridge and quality of public views of the site and its surroundings post project implementation would be similar to pre-project conditions. Therefore, the impact would be less than significant.

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

**Less than significant impact.** Implementation of the proposed project would not introduce new lighting or create a new source of glare for sensitive receptors. Some artificial lighting may be needed during construction activities; however, lighting for project construction would be temporary and short-term. All potential lighting used for construction would comply with the California Building Standards Code (CCR, Title 24) and California Green Building Standards Code (CCR, Title 24, Part 11 - CALGreen). Additionally, all lighting would use low energy, shielded light fixtures with direct light downward. Operation of the proposed project would not require lighting. Therefore, construction and operation of

the project would not create a new source of substantial light or glare, and the impact would be less than significant.

## II. 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 of the California Resources Agency, to non-agricultural 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? | ☐ | ☐ | ☐ | ☒ |
| e) | Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non- forest use? | ☐ | ☐ | ☐ | ☒ |

**Environmental Setting**

According to the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP), the project site is mapped partially as Rural Residential Land and Confined Animal Agriculture (DOC 2023a).

**Impact Analysis**

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

**No impact.** The northern portion of the project site is mapped as Confined Animal Agriculture, and the southern portion of the project site is mapped as Rural Residential Land (DOC 2023a). The project site is not located on Williamson Act contracted land. Implementation of the proposed project would provide scour mitigation underneath Harney Lane Bridge; no work is proposed on the bridge structure itself. Additionally, the majority of work is planned to be confined to Harney Lane ROW; however, forming of the cut-off wall would require construction crews to work outside the Harney Lane ROW. Therefore, the

proposed project would not convert farmland to non-agricultural use and would not conflict with existing zoning for agricultural use. Therefore, no impact would occur for questions a) and b).

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?

**No impact.** Implementation of the proposed project would provide scour mitigation, including installation of open cell ACB around the piers and abutments, underneath the existing Harney Lane Bridge. No work would be done on the bridge itself. The project site is not zoned for forest land and would not result in the loss of forest land. Therefore, no impact would occur for questions c) and d).

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

**No impact.** As described in questions a) through d), implementation of the proposed project would not result in the conversion of farmland to a non-agricultural use or result in the conversion of forest land to non-forest use. Therefore, no impact would occur.

## III. Air Quality

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Where 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 non-attainment under 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? | ☐ | ☐ | ☒ | ☐ |

An Air Quality Assessment was prepared by HELIX Environmental Planning, Inc. (HELIX) in August 2023 and is included as Appendix B to this IS/MND.

**Environmental Setting**

The primary air pollutants that would be emitted by the project include the ozone precursors nitrogen oxides ($NO_X$) and reactive organic gases (ROG), carbon monoxide (CO), and suspended particulate matter ($PM_{10}$ and $PM_{2.5}$). Other regulated (or "criteria") pollutants, such as lead (Pb) and sulfur dioxide ($SO_2$), would not be emitted in any substantial quantities by the project, and air quality standards for them are being met throughout the San Joaquin Valley Air Pollution Control District (SJVAPCD).

Existing Air Quality

The San Joaquin Valley Air Basin (SJVAB) experiences poor air quality conditions, due primarily to elevated levels of ozone and particulate matter.

Ozone

In the upper atmosphere, ozone serves a beneficial purpose by reducing ultraviolet radiation potentially harmful to humans. However, when it reaches elevated concentrations in the lower atmosphere, it can be harmful to the human respiratory system and to sensitive species of plants.

Ozone is formed in the atmosphere by a complex series of photochemical reactions that involve "ozone precursors" that comprise two families of pollutants: $NO_X$ and ROG. $NO_X$ and ROG are emitted from a variety of stationary and mobile sources, primarily vehicle exhaust. Ozone concentrations in the SJVAB are typically higher than in coastal areas because of the greater frequency of hot days and stagnant

conditions that are conducive to ozone formation. Ozone precursor pollutants are also carried to the valley from upwind urban areas.

Particulate Matter (PM)

Regulated fractions of particulate matter include $PM_{10}$ which consists of particulate matter that is 10 microns or less in diameter, and $PM_{2.5}$ which consists of particulates that are 2.5 microns or less in diameter. Both $PM_{10}$ and $PM_{2.5}$ can be inhaled and cause adverse health effects. $PM_{2.5}$ (including diesel exhaust particles) is thought to have greater effects on health because minute particles are able to penetrate to the deepest parts of the lungs.

Particulate matter in the atmosphere results from many kinds of dust- and fume-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as mining and demolition and construction activities, are more local in nature, while others, such as vehicular traffic, are more regional in their effect.

Toxic Air Contaminants

Besides the "criteria" air pollutants, there is another group of substances found in ambient air referred to as toxic air contaminants (TACs). Particulate matter from diesel exhaust is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs. Particulate matter emitted from diesel-fueled engines (diesel particulate matter [DPM]) was found to comprise much of that risk. The vast majority of diesel exhaust particles (over 90 percent) consist of $PM_{2.5}$, which are the particles that can be inhaled deep into the lungs (CARB 2023).

Regulatory Setting

At both the State and federal levels, air quality standards have been established for a range of air pollutants. These standards specify the concentrations of each criteria pollutant that the public may be exposed to without adverse health effects. Air quality monitoring data for each criterion of air pollutant are used to determine if an air basin is in violation of an ambient air quality standard. Areas that do not violate federal and State ambient air quality standards are considered to have “attained” the standards. The San Joaquin Valley, as a whole, does not meet State or federal ambient air quality standards for ground level ozone and $PM_{2.5}$ and the State standards for $PM_{10}$. Accordingly, under the Federal Clean Air Act, the U.S. Environmental Protection Agency (USEPA) has classified the region as in extreme nonattainment for the 8-hour ozone standard, nonattainment for $PM_{2.5}$, and in attainment or unclassified for all other air pollutants, including carbon monoxide. At the State level, the region is considered severe non-attainment for ground level ozone and non-attainment for $PM_{10}$ and $PM_{2.5}$ and is considered attainment or unclassified for all other pollutants.

In response to not meeting the air quality standards for ozone and PM, the SJVAPCD has prepared required attainment plans for each pollutant including the *2022 Plan for the 2015 8-Hour Ozone Standard*, *2007 PM10 Maintenance Plan*, and the *2018 Plan for the 1997, 2006, and 2012 PM2.5 Standards*. Both the ozone and $PM_{2.5}$ attainment plans include all measures (i.e., federal, State, and local) that would be implemented through rule making or program funding to reduce air pollutant emissions.

SJVAPCD Rules and Regulations

To reduce emissions of ozone precursors (i.e., ROG and $NO_x$) and $PM_{10}$ from new land use development projects, and achieve the attainment plans for each pollutant, the SJVAPCD adopted the Indirect Source Review Rule (ISR or Rule 9510) in 2005. The rule requires projects to reduce both construction and operational period emissions by specified amounts by applying the SJVAPCD-approved mitigation measures and/or paying fees to support off-site mitigation programs that reduce emissions. Fees apply to the unmitigated portion of the emissions and are based on estimated costs to reduce the emissions from other sources plus expected costs to cover administration of the program. Off-site emission reduction projects to be funded through ISR include retrofitting heavy-duty engines, replacing agricultural machinery and pumps, paving unpaved roads and road shoulders, trading out combustion powered lawn and agricultural equipment with electrical and other equipment, as well as a number of other projects that result in quantifiable emissions reductions of $PM_{10}$ and $NO_X$.

SJVAPCD controls $PM_{10}$ from fugitive dust through several rules collectively known as Regulation VIII (Fugitive $PM_{10}$ Prohibitions). The purpose of these rules is to reduce ambient concentrations of $PM_{10}$ by requiring actions to prevent, reduce or mitigate anthropogenic (human caused) fugitive dust emissions. This applies to activities such as construction, bulk materials, open areas, paved and unpaved roads, material transport, and agricultural areas. Development projects are required to provide dust control plans that meet the regulation requirements. Other Air District rules that apply to construction activities include Rule 4102, regarding creation of a nuisance, Rule 4601 which limits volatile organic compound emissions from architectural coatings, storage and cleanup, and Rule 4641 which limits emissions form asphalt paving materials.

Methodology and Assumptions

*Construction*

Construction of the proposed project is planned to commence in May 2026 and would take up to four months to complete. Work would occur when Paddy Creek is dry, and no diversion or dewatering is anticipated. Project duration is expected to be one season. Construction activities would include excavation and the placement of ACB and aggregate using traditional earth moving equipment. Excavation is expected to generate approximately 60 CY of debris and 710 CY of aggregate and soil to be exported to the North County Recycling Center and Sanitary Landfill approximately 3.75 miles east of the project site along Harney Lane. Additionally, approximately 60 CY of aggregate would be imported to fill the ACB.

The project's construction emissions were estimated using the California Emissions Estimator Model (CalEEMod), Version 2022.1 (California Air Pollution Control Officers Association [CAPCOA] 2022). This model utilizes CARB's Mobile Source Emissions Inventory (MSEI) EMFAC and OFFROAD databases to calculate exhaust emissions for on-road vehicles and off-road equipment, respectively. The construction analysis included modeling of the projected construction equipment that would be used and quantities of earth and debris to be moved.

Construction input data for CalEEMod include, but are not limited to, (1) the anticipated start and finish dates of construction activity; (2) inventories of construction equipment to be used; (3) areas to be excavated and graded; and (4) volumes of materials to be exported from and imported to the project area. The analysis assessed total annual emissions from construction activities associated with project implementation.

*Operation*

Once completed, the scour mitigation work would require very little maintenance on an as needed basis; therefore, operational emissions generated once the new scour mitigation measures are installed would be negligible. Potential operational emissions resulting from a roadway project would typically result from an increase in vehicle miles traveled (VMT) compared to existing conditions. However, the project would not expand the capacity of Harney Lane beyond the existing conditions and would not generate additional trips or VMT. Therefore, no change in operational emissions would occur, and no operation emission calculations are included in this analysis.

Significance Criteria

Appendix G of the State CEQA Guidelines states that the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the above determinations. The SJVAPCD has established significance thresholds to assess the regional and localized impacts of project-related air pollutant emissions. The significance thresholds are updated, as needed, to appropriately represent the most current technical information and attainment status in the SJVAB. Table 1, *SJVAPCD Air Quality Significance Thresholds*, presents the most current significance thresholds. A project with emissions below these thresholds is generally considered to have a less than significant effect on air quality.

**Table 1: SJVAPCD AIR QUALITY SIGNIFICANCE THRESHOLDS**

| Pollutant | Construction Emissions (tons per year) | Operational Emissions (tons per year) |
|---|---|---|
| ROG | 10 | 10 |
| $NO_X$ | 10 | 10 |
| CO | 100 | 100 |
| $PM_{10}$ | 15 | 15 |
| $PM_{2.5}$ | 15 | 15 |
| $SO_X$ | 27 | 27 |

Source: SJVAPCD 2015

SJVAPCD = San Joaquin Valley Air Pollution Control District; ROG = reactive organic gas; $NO_X$ = nitrogen oxides; CO = carbon monoxide; $PM_{10}$ = respirable particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = fine particulate matter with a diameter of 2.5 microns or less; $SO_X$ = sulfur oxides

**Impact Analysis**

a) Conflict with or obstruct implementation of the applicable air quality plan?

**Less than significant impact.** The SJVAPCD has adopted several attainment plans that outline long-term strategies designed to achieve compliance with the State and federal ambient air quality standards. According to SJVAPCD (2015, par. 7.12, page 65), "projects with emissions below the thresholds of significance for criteria pollutants would be determined to 'Not conflict or obstruct implementation of the District's air quality plan.'" The project emissions reported in Appendix B, which are summarized in Table 2, *Construction Emissions*, below, show that emissions of all criteria pollutants would be below the thresholds of significance. Therefore, the project would not conflict with or obstruct implementation of the applicable air quality plan, and the impact would be less than significant.

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

**Less than Significant Impact.**

Construction Emissions

The project's construction emissions were estimated using CalEEMod, as described above. The emissions generated from construction activities include:

- Dust (including $PM_{10}$ and $PM_{2.5}$), primarily from fugitive sources such as soil disturbance and vehicle travel over paved and unpaved surfaces; and

- Combustion emissions of air pollutants (including ROG, $NO_X$, $PM_{10}$, $PM_{2.5}$, CO, and sulfur oxides [$SO_X$]), primarily from operation of heavy off-road equipment and haul trucks.

The results of the calculations for project construction are shown in Table 2. The data is presented as the annual anticipated emissions for comparison with the SJVAPCD thresholds. The model output is included in Appendix B. As shown in Table 2, the project's construction emissions would not exceed SJVAPCD thresholds and would not result in a cumulatively considerable net increase of any criteria pollutant. The impact would be less than significant.

**Table 2: CONSTRUCTION EMISSIONS**

| | Pollutant Emissions (tons per year) | | | | | |
|---|---|---|---|---|---|---|
| **Year** | **ROG** | **$NO_X$** | **CO** | **$SO_2$** | **$PM_{10}$** | **$PM_{2.5}$** |
| 2026 | 0.05 | 0.41 | 0.44 | <0.01 | 0.12 | 0.06 |
| *SJVAPCD Thresholds* | *10* | *10* | *100* | *27* | *15* | *15* |
| ***Significant Impact?*** | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** |

Source: CalEEMod (Appendix B); SJVAPCD 2015
ROG = reactive organic gas; $NO_X$ = nitrogen oxides; CO = carbon monoxide; $SO_2$ = sulfur dioxide; $PM_{10}$ = respirable particulate matter with a diameter of 10 microns or less; $PM_{2.5}$ = fine particulate matter with a diameter of 2.5 microns or less; SJVAPCD = San Joaquin Valley Air Pollution Control District

Operational Emissions

Once completed, the restoration work would require very little maintenance on an as-needed basis; therefore, operational emissions generated once the new erosion controls are installed would be negligible. Potential operational emissions resulting from a roadway project would typically result in an increase in VMT compared to existing conditions. However, the project would not expand the capacity of Harney Lane beyond the existing conditions and would not generate additional VMT. Therefore, no change in operational emissions would occur, and the impact would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

**Less than Significant Impact.** Sensitive receptors are described as residences, schools, daycare centers, playgrounds, medical facilities, or other facilities that may house individuals with health conditions (medical patients or elderly persons/athletes/students/children) that may be adversely affected by changes in air quality. Impacts to sensitive receptors are typically analyzed for operational period

CO hot spots and exposure to TACs. An analysis of the project's potential to expose sensitive receptors to these pollutants is provided below.

Carbon Monoxide Hot Spots

A CO hot spot is an area of localized CO pollution caused by severe vehicle congestion on major roadways, typically near intersections. A quantitative screening is required in two instances: (1) if a project increases the average delay at signalized intersections operating at Level of Service (LOS) E or F; or (2) if a project causes an intersection that would operate at LOS D or better without the project to operate at LOS E or F with the project. As discussed previously, the project would not expand the capacity of Harney Lane beyond the existing conditions and would not generate additional trips or VMT. Thus, the project would neither cause new severe congestion nor significantly worsen existing congestion. There would be no potential for a CO hot spot or exposure of sensitive receptors to substantial, project generated, local CO emissions. The impact would be less than significant, and no mitigation is required.

Toxic Air Contaminants

Construction of the project would result in the use of heavy-duty construction equipment, haul trucks, and construction worker vehicles. These vehicles and equipment could generate DPM, which is a TAC. Generation of DPM from construction projects typically occurs in a localized area (e.g., near locations with multiple pieces of heavy construction equipment working in close proximity) for a short period of time. Because construction activities and subsequent emissions vary depending on the phase of construction, the construction-related emissions to which nearby receptors are exposed to would also vary throughout the construction period. Concentrations of DPM emissions are typically reduced by 70 percent at approximately 500 feet (CARB 2005).

The dose of TACs to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance in the environment and the extent of exposure a person has to the substance; a longer exposure period to a fixed amount of emissions would result in higher health risks. Current models and methodologies for conducting cancer health risk assessments are associated with longer-term exposure periods (typically 30 years for individual residents based on guidance from OEHHA) and are best suited for evaluation of long-duration TAC emissions with predictable schedules and locations. These assessment models and methodologies do not correlate well with the temporary and highly variable nature of construction activities. Cancer potency factors are based on animal lifetime studies or worker studies where there is long-term exposure to the carcinogenic agent. There is considerable uncertainty in trying to evaluate the cancer risk from projects that will only last a small fraction of a lifetime (OEHHA 2015). Considering this information, the fact that any concentrated use of heavy construction equipment would occur at various locations throughout the project site only for short durations, construction of the project would not expose sensitive receptors to substantial DPM concentrations, and the impact 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 Impact.** Project construction equipment and activities would generate odors. Primary construction odor sources include diesel exhaust emissions from equipment operating on site. There may be situations where construction activity odors would be noticeable by a passerby, but these odors would not be unfamiliar or necessarily objectionable. The odors would be temporary and would

dissipate rapidly from the source with an increase in distance. Therefore, the impacts would be short-term, would not be objectionable to a substantial number of people, and would be less than significant.

Long-term operation of the project would not result in a change to existing odors in the project vicinity, and impacts related to odors would be less than significant.

# IV. 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 or U.S. Fish and Wildlife Service? | ☐ | ☒ | ☐ | ☐ |
| b) | Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service? | ☐ | ☐ | ☒ | ☐ |
| 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, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan? | ☐ | ☐ | ☒ | ☐ |

A Natural Environment Study (Minimal Impacts) [NESMI] was prepared by Sycamore Environmental Consultants, Inc. in May 2022. The NESMI is included as Appendix C to this IS/MND. An Aquatic Resources Delineation (ARD) was prepared by HELIX in September 2023. The ARD is included as Appendix D to this IS/MND.

**Environmental Setting**

The 0.40-acre Biological Study Area (BSA) is located at the intersection of Harney Lane and Paddy Creek, 5 miles east of the community of the City of Lodi in San Joaquin County. Paddy Creek flows south through the center of the BSA. Existing riprap is located on the channel bottom around the pier columns and on the banks under the bridge. Land surrounding the BSA within 5 miles consists of agriculture and rural residences. The elevation in the upland area of the BSA is approximately 71 to 79 feet amsl. The terrain within the BSA is nearly level, with banks sloping downward toward the creek bed.

**Biological Communities**

Ruderal

This community includes disturbed or cleared areas colonized by disturbance adapted and primarily nonnative grasses and forbs. Ruderal areas occur on either side of Harney Lane, in upland areas adjacent to both sides of the creek, and on either side of the dirt roads. This is an upland community, and ruderal is not considered a community of special concern.

Paddy Creek

Paddy Creek is an intermittent stream that flows south through the center of the BSA under Harney Lane Bridge. Paddy Creek is a natural community of special concern because it is a potential water of the U.S. and State.

Disturbed (Dirt Roads)

The areas classified as Disturbed include the dirt roads that run north and south off of Harney Lane. No vegetation occurs in this community. Disturbed areas are not considered sensitive natural communities.

Developed/Paved Road

The area classified as Developed/Paved Road includes the bridge and Harney Lane. Harney Lane is a paved two-lane road that runs roughly east to west in the BSA. Paved roads and structures are disturbed communities that are part of the built environment. No vegetation occurs in this community. Developed areas are not considered sensitive natural communities.

Habitat Connectivity

The BSA is located in an agricultural and rural residential setting. Paddy Creek contains existing riprap.

The National Audubon Society Important Bird Areas (IBA) are sites that provide essential habitat for birds. IBAs were reviewed to determine if the project is located in a Global IBA, Continental IBA, or State IBA (NAS 2020). It was determined that the project is not located in an IBA.

Aquatic Resources

As depicted in Table 3, *Aquatic Resources in the Study Area*, a total of 0.079 acre of aquatic resources have been delineated in the BSA. Wetland features mapped within the BSA include intermittent drainage (Paddy Creek) (0.079 acre and 85 linear feet).

**Table 3: AQUATIC RESOURCES IN THE STUDY AREA**

| Feature | Latitude/Longitude | Cowardin Classification[1] | Area (ac.) | Area (sq. ft.) | Length (ft.) | Avg. Width (ft.) |
|---|---|---|---|---|---|---|
| ***Other Waters*** | | | | | | |
| Intermittent Drainage | 38.101752/ -120.168207 | PEM1Cx | 0.079 | 3,397.68 | 85 | 42 |
| **Total Aquatic Resources** | | | **0.079** | **3,397.68** | **85** | **42** |

[1] Cowardin Codes for Wetlands: System (P = Palustrine) — Class (EM = Emergent) — Subclass (1 = Persistent) — Water Regime (C = Seasonally Flooded) – Special Modifiers (x = excavated).

ac = acre; sq.ft. = square feet

A total of 0.079 acre of intermittent drainage have been delineated in the BSA consisting of Paddy Creek, which has been channeled resulting in a relatively straight stream course. The incised channel of this drainage was vegetated by herbaceous vegetation that consisted of arroyo willow (*Salix lasiolepis*), Italian ryegrass (*Festuca perennis*), tall flatsedge (*Cyperus eragrostis*), Mexican rush (*Juncus mexicanus*), western rush (*Juncus occidentalis*), and curly dock (*Rumex crispus*) growing along the banks. The streambed is mostly non-vegetated with biotic crust and with sparsely scattered emergent wetland vegetation consisting of common smartweed (*Persicaria hydropiper*) and floating water primrose (*Ludwigia peploides*).

Paddy Creek supports water seasonally as evidenced by aerial imagery. This was confirmed during the site visit on July 25, 2023, when the drainage was mostly dry with one large puddle present to the south of the bridge. This creek does not support any riparian or overhanging tree canopy in the BSA, although sapling sized arroyo willow and Northern California black walnut trees were present on the north side of the bridge. The streambed substrate is predominately gravel and cobble. During the rainy season, the creek experiences periods of high flow that scour the channel and prevent the formation of stable soils and plant communities.

Methodology

*Literature Search*

An official U.S. Fish and Wildlife Service (USFWS) species list was obtained from the Information for Planning and Consultation (IPaC) website, Sacramento Field Office, on January 29, 2019. The list was updated most recently on May 11, 2022 (Consultation Code 2022-0041415). The list identifies federal-listed, candidate, or proposed species within USFWS jurisdiction that potentially occur in or could be affected within the BSA.

An official National Marine Fisheries Service (NMFS) list of federal-listed species, designated critical habitat, and Essential Fish Habitat present on the Waterloo quad was generated on October 15, 2019, from the West Coast Region California Species List November/December 2016 KMZ layer in Google Earth. The list was updated most recently on May 11, 2022.

The California Natural Diversity Database (CNDDB) was queried for known occurrences of special-status species on the Project site quad (Waterloo) and the eight surrounding quads on January 29, 2019. The list was updated most recently on May 11, 2022.

The California Native Plant Society (CNPS) inventory of rare and endangered plants was queried on January 29, 2019 for known occurrences of special-status plant species in or near the BSA (Waterloo quad and the eight surrounding quads). The list was updated most recently on May 11, 2022.

The CNDDB tracks other species that have not been designated by CDFW as a California species of special concern; these species were not evaluated as special-status species in the NESMI. California Rare Plant Rank 3 or 4 plant species are either more common or more information is needed; these species were not evaluated as special-status species in the NESMI.

*Field Reviews*

The general biological survey consisted of walking through the BSA to determine if any special-status species or their habitat were present. Natural communities, plant and wildlife species, and notable habitat characteristics were recorded. Surveys were conducted in accordance with preconstruction survey requirements of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) to verify vegetation types affected by the project and determine if SJMSCP covered species are present (SJMSCP 2000).

A jurisdictional delineation of wetlands and waters was conducted according to Sacramento District Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (Corps 2016), USACE Wetland Delineation Manual (Corps 1987), and the Regional Supplement to the USACE Wetland Delineation Manual: Arid West Region (Version 2.0; Corps 2008). The ARD is included as Appendix D to this IS/MND. The results of the jurisdictional delineation are also incorporated into the NESMI. Vegetation, soil, and hydrology were sampled in accordance with USACE delineation methods. No potential jurisdictional wetlands were documented in the BSA.

Botanical surveys were conducted in accordance with CDFW Protocol (CDFW 2018) and requirements of the SJMSCP (2000). Surveys were conducted in late October 2019 to coincide with the evident and identifiable period of special-status plants with potential habitat in the BSA. Approximately 2-person-hours were spent specifically surveying the site for plants. The surveys consisted of walking systematically through the BSA while identifying and recording vascular plants. Microhabitats with greater potential for rare plants, such as mesic stream banks, were closely inspected. Approximately 1-person-hour was spent keying specimens collected in the field. Scientific nomenclature follows Baldwin, et al., eds. (2012). Vegetation was mapped and classified according to methods described in Sawyer et al. (2009).

**Impact Analysis**

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 or U.S. Fish and Wildlife Service?

**Less than significant impact with mitigation.**

<u>Special-Status Fish Species</u>

*Steelhead—California Central Valley DPS (Oncorhynchus mykiss)*

During seasonal periods of high flowing water under Harney Lane Bridge, there is the potential for migrating adult California Central Valley (CCV) steelhead to be present within the BSA. However,

construction of the project would occur during the dry season, when the creek is dry, and there is no potential for fish to migrate into the BSA. Therefore, the project would have no impact on CCV steelhead, and no mitigation is required.

Special-Status Reptile Species

*Western Pond Turtle (Emys marmorata)*

Construction activities would result in impacts to Paddy Creek, which provides marginal habitat for Western Pond Turtle (WPT). However, construction would occur in the late summer or fall when Paddy Creek is dry. As the WPT is associated with permanent or nearly permanent water, the project would not impact WPT. No impact would occur, and no mitigation is required.

*Giant Garter Snake (Thamnophis gigas)*

The BSA does not provide habitat for the Giant Garter Snake (GGS). Construction would occur during the active period of giant garter snake when the creek is dry. Due to the lack of nearby records and the lack of suitable aquatic and upland habitat during construction, impacts to GGS are not anticipated. The project would have no impact on GGS, and no mitigation is required.

Special-Status Bird Species

*Burrowing Owl (Athene cunicularia)*

Burrowing owls or small mammal burrows were not observed in the BSA during biological surveys conducted in 2019. However, the BSA could provide habitat for burrowing owls if burrows become established prior to construction. Mitigation Measure BIO-1 would be implemented to reduce potential impacts to burrowing owls. Mitigation Measure BIO-1 is based on avoidance and minimization measures provided by the SJMSCP (2000). The project intends to apply for coverage under the SJMSCP. No compensatory mitigation is proposed. Mitigation Measure BIO-2 would also be implemented to further protect the burrowing owl. With implementation of Mitigation Measure BIO-1 and Mitigation Measure BIO-2, the impact would be less than significant.

*Swainson's Hawk (Buteo swainsoni)*

Swainson's hawk was not observed during biological surveys conducted in 2019. However, the BSA could provide marginal foraging habitat for Swainson's hawk. There are no large trees in the BSA that could provide nesting habitat for Swainson's hawk, but large trees that could provide nesting habitat are present within 200 feet of the BSA. Numerous other suitable nest trees are present within 0.5 mile of the BSA. Mitigation Measure BIO-2 would be implemented to reduce potential impacts to Swainson's hawk. Mitigation Measure BIO-2 is provided by the SJMSCP reference removal of SWHA nest trees (SJMSCP 2000). No trees are proposed for removal. The project intends to apply for coverage under the SJMSCP. No compensatory mitigation is proposed. With implementation of Mitigation Measure BIO-2, the impact would be less than significant.

*White-tailed Kite (Elanus leucurus)*

A White-tailed kite was observed foraging in the BSA during the biological survey conducted in October 2019. However, there are no groves of dense, broad-leafed deciduous trees in the BSA that could provide nesting habitat for white-tailed kite. Large trees that could provide marginal nesting habitat are present within 500 ft of the BSA. Mitigation Measure BIO-3 would be implemented to reduce potential

impacts to White-tailed kite. Mitigation Measure BIO-3 is provided by the SJMSCP (2000). The project intends to apply for coverage under the SJMSCP. No compensatory mitigation is proposed. Mitigation Measure BIO-2 would also be implemented to further protect the White-tailed kite. With implementation of Mitigation Measure BIO-2 and Mitigation Measure BIO-3, the impact would be less than significant.

Migratory Birds and Birds of Prey

The BSA provides potential nesting habitat for birds of prey and birds listed by the Migratory Birds Treaty Act (MBTA). Birds such as black phoebes (Sayornis nigricans) and swallows frequently build their nests on human-made structures, particularly near water. Abandoned swallow nests from the prior season were observed on the underside of the bridge during both surveys. Nests could become active in or near the BSA before construction begins. Mitigation Measure BIO-2 would be implemented to reduce potential impacts to Migratory Birds and Birds of Prey. Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season. Nesting or attempted nesting by migratory birds and birds-of-prey is anticipated from February 1 to September 1. No compensatory mitigation is proposed. With implementation of Mitigation Measure BIO-2, the impact would be less than significant.

Special-Status Plants & Bryophytes Species

*Wolly rose-mallow (Hibiscus lasiocarpos var. occidentalis)*

The banks along Paddy Creek provide marginal habitat for woolly rose-mallow. Habitat is marginal given that the creek dries up in late summer/fall. However, Woolly rose-mallow was not observed during the botanical survey conducted in October 2019, during the evident and identifiable period for this species. Therefore, the project would have no impact on Wolly rose-mallow, and no mitigation is required.

*Sanford's arrowhead (Sagittaria sanfordii)*

Paddy Creek provides marginal habitat for Sanford's arrowhead. Habitat is marginal given that the creek dries up in late summer/fall. However, Sanford's arrowhead was not observed during the botanical survey conducted in October 2019, during the evident and identifiable period for this species. Therefore, the project would have no impact on Sanford's arrowhead, and no mitigation is required.

In summary, the project would require Mitigation Measure BIO-1 through BIO-3 to mitigate potential impacts to burrowing owl, Swainson's hawk, White-tailed kite, and migratory birds and birds of prey. With implementation of Mitigation Measure BIO-1 through BIO-3, the impacts would be less than significant.

**Mitigation Measure BIO-1: Avoid and Minimize Impacts to Burrowing Owl**

The Project Proponent shall plant new vegetation or retain existing vegetation entirely covering the site at a height of approximately 36 inches above the ground. Vegetation shall be retained until construction begins. Vegetation shall discourage both ground squirrel and owl use of the site. Alternatively, the Project Proponent shall disc or plow the entire project site or otherwise destroy any ground squirrel burrows to prevent occupation by burrowing owls.

**Mitigation Measure BIO-2: Avoid and Minimize Impacts to Migratory Birds and Birds of Prey**

Swallows

In California, bridge-nesting swallows typically arrive in mid-February, increase in numbers until late March, and remain until October. Nesting begins in April, peaks in June, and continues into August. Measures shall be taken to prevent the establishment of cliff swallow nests prior to construction. Techniques to prevent nest establishment include using exclusion devices, removing, and disposing of partially constructed and unoccupied nests of migratory or nongame birds on a regular basis to prevent their occupation, or perform any combination of these. This shall be done by:

- The contractor can visit the site weekly and remove partially completed nests using either hand tools or high-pressure water; and/or
- Hang netting from the bridge before nesting begins. If this technique is used, netting should be in place from late February until project construction begins.

Birds of Prey, Birds Protected by the Migratory Bird Treaty Act, Burrowing Owl, Swainson's Hawk, and White-Tailed Kite

- If construction begins outside the February 1 to September 1 breeding season, there shall be no need to conduct a preconstruction survey for active nests.
- Vegetation scheduled for removal shall be removed during the non-breeding season from September 2 to January 31. Vegetation removal includes vegetation within the stream zone.
- If construction begins between February 1 and September 1, a biologist shall conduct a survey for burrowing owl, Swainson's hawk, white-tailed kite and other active bird of prey nests within 500 feet; and active MBTA bird nests within 100 feet of the BSA from publicly accessible areas within one week prior to construction. The biologist shall conduct the burrowing owl preconstruction survey in accordance with the applicable sections of the DFG Staff Report on Burrowing Owl Mitigation Guidelines (CDFG 2012). The measures listed below shall be implemented based on the survey results.

No Active Nests Found:

- If no active nest of a bird of prey, MBTA bird, or other CDFW protected bird is found, then no further avoidance and minimization measures are necessary.

Active Nests Found:

- If an active nest of a bird of prey, MBTA bird, or other CDFW protected bird is discovered that may be adversely affected by construction activities or an injured or killed bird is found, immediately:

    1. Stop all work within a 100-foot radius of the discovery;
    2. Notify the Engineer;
    3. Do not resume work within the specified radius of the discovery until authorized.

If active Swainson's hawk, burrowing owl, white-tailed kite, or other bird of prey nest or burrows are found within the BSA, the biologist shall establish a minimum 500-foot Environmentally Sensitive Area (ESA) around the nest. If the biologist determines other active nests may be adversely affected by construction activities, the biologist shall establish a minimum 100-foot ESA around the nest if the nest is of an MBTA bird other than a bird of prey.

- Activity in the ESA shall be restricted as follows:

    1. Do not enter the ESA unless authorized;
    2. If the ESA is breached, immediately:
        - Secure the area and stop all operations within 60 feet of the ESA boundary
        - Notify the Engineer
    3. If the ESA is damaged, the Department determines what efforts are necessary to remedy the damage and who performs the remedy.

- No construction activity shall be allowed in the ESA until the biologist determines that the nest is no longer active, or monitoring determines that a smaller ESA shall protect the active nest for burrowing owl, Swainson's hawk, or white-tailed kite.

- The ESA shall be reduced if the biologist monitors the construction activities and determines that no disturbance to the active nest is occurring. Reduction of the ESA depends on the species of bird, the location of the nest relative to the project, project activities during the time the nest is active, and other project-specific conditions.

- Between February 1 and September 1, if it is determined that vegetation need to be trimmed and/or removed after construction has started, a survey shall be conducted for active nests in the area to be affected. If an active nest is found, the above measures shall be implemented.

- If an active nest is identified in or adjacent to the construction zone after construction has started, the biologist shall be notified to determine whether construction is causing disturbance to the nest.

**Mitigation Measure BIO-3: Avoid and Minimize Impacts to White-Tailed Kite**

For white-tailed kites, preconstruction surveys shall investigate all potential nesting trees within 500 feet of the BSA (e.g., especially treetops 15-59 feet above the ground in oak, willow, eucalyptus, cottonwood, or other deciduous trees), during the nesting season (February 15 to September 15) whenever white-tailed kites are noted on site or within the vicinity of the project site during the nesting season. If active nesting sites are discovered, Mitigation Measure BIO-2 shall be implemented.

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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

**No impact.** The BSA is located in the San Joaquin Delta Hydrologic Unit (18040003), which is designated as Essential Fish Habitat (EFH) for Pacific salmon (NMFS 2008). The official species list from National Marine Fisheries Service (NMFS) states that EFH for Chinook salmon occurs on the Waterloo USGS quad. Paddy Creek does not provide any of the EFH essential habitat types or Habitat Areas of Particular

Concern (HAPCs). The portion of Paddy Creek in the BSA is typically dry by late summer/fall and does not provide spawning or rearing habitat.

The quality and quantity of EFH would not be reduced as a result of construction of the project. The project would not adversely affect designated EFH for Chinook salmon. Projects with no adverse effect on EFH are not required to consult with NMFS under the Magnuson-Stevens Act. Therefore, the project would have no impact on EFH for Chinook salmon. Additionally, there are no riparian corridors or wetlands associated with Paddy Creek. Therefore, the project would have no impact on any riparian habitat.

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?

**Less than significant impact with mitigation.** Paddy Creek is an intermittent stream that flows south through the center of the BSA under Harney Lane Bridge. Paddy Creek is a natural community of special concern because it is a potential water of the U.S. and State. The proposed project would result in 0.01 acre of temporary impacts to Paddy Creek as a result of construction access to the creek as well as from removal of existing riprap. Installation of ACB and reinforced concrete cut-off walls would result in 0.06 acre of permanent impacts to Paddy Creek. To avoid and minimize impacts to Paddy Creek, Mitigation Measure BIO-4 would be implemented. No compensatory mitigation is proposed. With implementation of Mitigation Measure BIO-4, the impact would be less than significant.

**Mitigation Measure BIO-4: Avoid and Minimize Impacts to Paddy Creek**

During construction, water quality shall be protected by implementation of Best Management Practices (BMPs) consistent with the current edition of the Caltrans Stormwater Quality Handbooks to minimize the potential for siltation and downstream sedimentation of Paddy Creek.

Equipment shall be refueled and serviced at designated construction staging areas. All construction material shall be stored and contained in a designated area that is located away from channels to prevent transport of materials into the adjacent Paddy Creek. The preferred distance is a minimum of 100 feet from riparian habitat or water bodies. Construction vehicles and equipment shall be maintained to prevent contamination of soil and water from external grease and oil and from leaking hydraulic fluid, fuel, oil, and grease.

Following completion of construction, all construction material and equipment shall be removed from Paddy Creek and the bed and banks of Paddy Creek shall be restored to approximate pre-project configurations. Areas temporarily disturbed on the banks of Paddy Creek shall be revegetated and reseeded with native grasses and other native herbaceous annual and perennial species prior to October 15 and/or immediately after construction at the completion of the project. The project engineer may determine that reseeded areas should be covered with a biodegradable erosion control fabric to prevent erosion and downstream sedimentation. The project engineer shall determine the specifications needed for erosion control fabric (e.g., sheer strength) based on anticipated maximum flow velocities and soil types. No seed of nonnative species shall be used unless certified to be sterile.

The project shall acquire applicable permits from the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, and the California Department of Fish and Wildlife prior to conducting any work in the creek. Paddy Creek is a regulated stream that may require an encroachment permit from the

Central Valley Flood Protection Board. The project shall abide by the terms of permits acquired, including any limited operating periods restricting the time of year when work in the creek may occur.

To prevent injury and mortality of animals, workers shall cover open trenches and holes associated with implementation of covered activities that affect habitat for these species or design the trenches and holes with escape ramps that can be used during non-working hours. The construction contractor shall inspect open trenches and holes prior to filling and contact a qualified biologist to remove or release any trapped wildlife found in the trenches or holes.

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?

**Less than significant impact.** The project site, which is located within the BSA, is located in an agricultural and rural residential setting. Paddy Creek contains existing riprap. The proposed scour protection work would not create substantial barriers to wildlife movement. Therefore, the scope and footprint of the project would not change the surrounding available habitat or connectivity.

The National Audubon Society IBA are sites that provide essential habitat for birds. IBAs were reviewed to determine if the project is located in a Global IBA, Continental IBA, or State IBA (NAS 2020). It was determined that the project is not located in an IBA. The proposed project would not interfere with the movement of any species or with established wildlife corridors. Therefore, the impact would be less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

**Less than significant impact.** The proposed project would not conflict with the San Joaquin County Riparian Habitat Ordinance, as there is no riparian corridors or wetlands associated with Paddy Creek. San Joaquin County does not have a tree-protection ordinance. The project itself would not conflict with County General Plan policies that advocate protecting riparian habitat because the proposed project would not impact riparian habitat. Therefore, the project would not conflict with any local policies or ordinances protecting biological resources, and the impact would be less than significant.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

**Less than significant impact.** The project is located within the agriculture land use area of the SJMSCP, in the Central Zone of San Joaquin County. However, the proposed project would not conflict with the provisions of the SJMSCP as no open space habitat would be converted to non-open space use and because the project-specific biological mitigation measures outlined in questions a) and b) above would address impacts to sensitive species with potential to occur in the project area. Therefore, as the proposed project does not conflict with the provisions of the SJMSCP, the impact would be less than significant.

# V. 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 §15064.5? | ☐ | ☒ | ☐ | ☐ |
| b) | Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | ☐ | ☒ | ☐ | ☐ |
| c) | Disturb any human remains, including those interred outside of dedicated cemeteries? | ☐ | ☒ | ☐ | ☐ |

**Environmental Setting**

A cultural records search of the project area was requested at the Central California Information Center located at California State University, Stanislaus on December 13, 2018 (Appendix E). The results of the record search indicate that no cultural resources have been recorded within the project area and a screening memo was completed by Caltrans noting that a Historic Property Survey Report (HPSR) is not required for this project.

**Impact Analysis**

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

**Less than significant impact with mitigation.** The proposed project is not anticipated to cause substantial adverse changes in the significance of historical resources or archeological resources in the project area. A cultural record search of the project area was conducted at the Central California Information Center located at California State University, Stanislaus on December 13, 2018. The results of the record search indicate that no cultural resources have been recorded within the project area. Additionally, the Harney Lane Bridge has been evaluated by Caltrans and is considered not eligible for listing in the National Register of Historic Places (NRHP). However, in the unlikely event that cultural resources are encountered during construction, Mitigation Measure CUL-1 would be implemented. With implementation of Mitigation Measure CUL-1, the impact would be less than significant for questions a) and b).

**Mitigation Measure CUL-1: Accidental Discovery of Cultural Resources**

In the event that cultural resources are exposed during ground-disturbing activities, construction activities shall be halted within 100 feet of the discovery. Cultural resources could consist of but are not limited to stone, bone, wood, or shell artifacts, or features, including hearths, structural remains, or historic dumpsites. If the resources cannot be avoided during the remainder of construction, the retained archaeologist, who meets the Secretary of the Interior's *Professional Qualifications Standards*,

shall assess the resource, and provide appropriate management recommendations. If the discovery proves to be California Register of Historic Resources (CRHR)- or NRHP-eligible, additional documentation and analysis, such as data recovery excavation, shall be warranted.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

**Less than significant impact with mitigation.** The proposed project is not anticipated to disturb any human remains. However, in the unlikely event that human remains are encountered during construction, Mitigation Measure CUL-2 would be implemented. With implementation of Mitigation Measure CUL-2, the impact would be less than significant.

**Mitigation Measure CUL-2: Accidental Discovery of Human Remains**

Although considered highly unlikely, there is always the possibility that ground-disturbing activities during construction may uncover previously unknown human remains. In the event of an accidental discovery or recognition of any human remains, PRC Section 5097.98 shall be followed. Once project-related earthmoving begins and if there is a discovery or recognition of human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the specific location, or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains are Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in PRC Section 5097.98, or

2. Where the following conditions occur, the landowner or their authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendent or on the project area in a location not subject to further subsurface disturbance:

    - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission;
    - The descendent identified fails to make a recommendation; or,
    - The landowner or his authorized representative rejects the recommendation of the descendent, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

    All treatment recommendations made by the Tribe and other cultural resources specialists shall be documented in the confidential portion of the project record. Work in the area(s) of the cultural find shall only proceed after authorization from the lead agency in coordination with the Tribe.

# VI. Energy

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | ☐ | ☐ | ☒ | ☐ |
| b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency? | ☐ | ☐ | ☒ | ☐ |

**Environmental Setting**

California's electricity needs are satisfied by a variety of entities, including investor-owned utilities, publicly owned utilities, electric service providers and community choice aggregators. In 2020, the California power mix totaled 272,576 gigawatt hours (GWh). In-State generation accounted for 51 percent of the State's power mix. The remaining electricity came from out-of-State imports (CEC 2021a). Table 4, *California Electricity Sources 2020*, provides a summary of California's electricity sources as of 2020.

**Table 4: CALIFORNIA ELECTRICITY SOURCES 2020**

| Fuel Type | Percent of California Power |
|---|---|
| Coal | 2.74 |
| Large Hydro | 12.21 |
| Natural Gas | 37.06 |
| Nuclear | 9.33 |
| Oil | 0.01 |
| Other (Petroleum Coke/Waste Heat) | 0.19 |
| Renewables (Excluding Large Hydro) | 33.09 |
| Unspecified | 5.36 |

Source: California Energy Commission (CEC) 2021a

Natural gas provides the largest portion of the total in-State capacity and electricity generation in California, with nearly 45 percent of the natural gas burned in California used for electricity generation in a typical year. Much of the remainder is consumed in the residential, industrial, and commercial sectors for uses such as cooking, space heating, and as an alternative transportation fuel. In 2012, total natural gas demand in California for industrial, residential, commercial, and electric power generation was 2,313 billion cubic feet per year (bcf/year), up from 2,196 bcf/year in 2010 (CEC 2021b).

Transportation accounts for a major portion of California's energy budget. Automobiles and trucks consume gasoline and diesel fuel, which are nonrenewable energy products derived from crude oil. Gasoline is the most used transportation fuel in California, with 97 percent of all gasoline being

consumed by light-duty cars, pickup trucks, and sport utility vehicles (SUV). In 2015, 15.1 billion gallons of gasoline were sold in California (CEC 2021c). Diesel fuel is the second most consumed fuel in California, used by heavy-duty trucks, delivery vehicles, buses, trains, ships, boats, and farm and construction equipment. In 2015, 4.2-billion gallons of diesel were sold in California (CEC 2021d).

Energy in the project area, in the form of electricity and natural gas, is provided by Pacific Gas & Electric (PG&E).

**Impact Analysis**

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

**Less than significant impact.** The proposed project would include the installation of open cell ACB scour mitigation underneath Harney Lane Bridge. Energy consumed for project construction would primarily consist of fuels in the form of diesel and gasoline. Fuel consumption would result from the use of on-road and off-highway trucks for the transportation of construction materials, construction worker vehicles traveling to and from the proposed project site, and from the use of off-road construction equipment. While construction activities would require the consumption of petroleum-based fuels, consumption of such resources would be temporary and would cease upon the completion of construction.

As noted in Section 9.III, Air Quality, once construction is complete, scour mitigation work would require minimal maintenance on an as-needed basis; therefore, operation of the bridge would produce negligible operational emissions beyond what currently exists.

Therefore, the project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. The impact would be less than significant.

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

**Less than significant impact.** See the discussion under question a) above. The proposed project would not result in a substantial new demand for energy resources nor conflict with or obstruct any State or local plan for renewable energy or energy efficiency. Therefore, a less than significant impact would occur.

# VII. Geology and Soils

| | | 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 on- 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 waste water disposal systems 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? | ☐ | ☒ | ☐ | ☐ |

**Environmental Setting**

Geology

San Joaquin County is located in the San Joaquin Valley, which comprises the southernmost portion of the Great Valley Geomorphic Province of California. The Great Valley geomorphic province is characterized by a long alluvial plain that extends approximately 400 miles through central California. The San Joaquin Valley is drained by the San Joaquin River, which has been depositing sediments in the valley for about 160 million years (County 2014).

## Geologic Hazards

### *Expansive Soils*

Expansive soils are characterized by their potential "shrink-swell" behavior. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in certain fine-grained clay sediments from the process of wetting and drying. Clay minerals such as smectite, bentonite, montmorillonite, beidellite, vermiculite and others are known to expand with changes in moisture content. According to the soil survey data for San Joaquin County, close to half of the upper five feet of soils throughout the County have a low shrink-swell potential, a lesser portion is considered to have a moderate potential, and about an eighth of the area (primarily in the southwestern end of the County) has been mapped with a high potential (County 2014).

### *Soil Erosion*

Erosion is the wearing away of soil and rock by processes such as mechanical or chemical weathering, mass wasting, and the action of waves, wind, and underground water. Excessive soil erosion can eventually lead to damage to building foundations and roadways. Areas that are susceptible to erosion are often those that become exposed during the construction phase of development when existing cover is removed, or earthwork activities disturb sub-grade areas (County 2014).

### *Settlement*

Settlement can occur from immediate settlement, consolidation, shrinkage of expansive soil, and liquefaction. Soils tend to settle at different rates and by varying amounts depending on the load weight or changes in properties over an area, which is referred to as differential settlement. Subsidence can result in reduced storage capacity of groundwater aquifers. Subsidence within the County is usually the result of pumping groundwater or oxidation of peat in the Delta (County 2014).

### *Landslides and Slope Failure*

Slope failures, commonly referred to as landslides, include many phenomena that involve the downslope displacement and movement of material, either triggered by static (i.e., gravity) or dynamic (i.e., earthquake) forces. Steep slopes in the county are relatively limited and are primarily found in the southwestern portion of the County within the Coastal Range. In addition, there are minor slopes, in terms of vertical height, which are susceptible to slope instability in various levees located throughout the Delta area (County 2014).

## Seismic Hazards

### *Seismic Activity*

The County is located in a region that lies between two areas of seismic activity. The active faults associated with the San Andreas Fault System of the greater San Francisco Bay Area lie west of the County line, with the Marsh Creek-Greenville active fault located immediately west of the southern tip of the County. To the east lies a regional shear zone associated with the Sierra Nevada foothills known as the Foothills Fault System. Other active faults associated with the San Andreas Fault System include the Concord, Calaveras, Hayward, and the San Andreas fault. There are no active faults located within San Joaquin County (County 2014).

*Liquefaction*

Liquefaction is a transformation of soil from a solid to a liquefied state during which saturated soil temporarily loses strength resulting from the buildup of excess pore water pressure, especially during earthquake-induced cyclic loading. Soil susceptible to liquefaction includes loose to medium dense sand and gravel, low-plasticity silt, and some low-plasticity clay deposits (County 2014).

Soils

According to the Initial Site Assessment (ISA) prepared by WRECO, the subsurface conditions encountered at the project site based on a review of soil borings on GeoTracker, consists of gravely silt, sand, clay, and sandy silt from 0 to 35 feet below ground surface. Below 35 feet, the soil consists of a mixture of poorly to well sorted sand and clay (WRECO 2021a). The project site area is composed of three soil series: the Kingdon Series, Hollenbeck Series, and San Joaquin Series.

The Kingdon Series consists of very deep, moderately well drained soils formed in alluvium mainly from Granitic mixed rock sources. This series has slow runoff and moderate permeability. This series is common in the San Joaquin Valley and generally has a slope from 0 to 2 percent (WRECO 2021a).

The Hollenbeck Series consists of deep to duripan, moderately well drained soils that formed in alluvium from mixed rock sources. This series has slow runoff and slow permeability. The Hollenbeck Series is often on inter fan basins and basin rims. It generally has a slope from 0 to 3 percent (WRECO 2021a).

The San Joaquin Series consists of moderately well drained soils on low terraces and dissected terraces. These soils are moderately deep to a hardpan. They formed in alluvium derived from dominantly granitic rock sources. This series has medium to very high runoff and slow permeability. The San Joaquin Series has a slope ranging from 0 to 9 percent (WRECO 2021a).

**Impact Analysis**

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?

**Less than significant impact.** The County is located in a region that lies between two areas of seismic activity. The active faults associated with the San Andreas Fault System of the greater San Francisco Bay Area lie west of the County line, with the Marsh Creek-Greenville active fault located immediately west of the southern tip of the County. To the east lies a regional shear zone associated with the Sierra Nevada foothills known as the Foothills Fault System. Other active faults associated with the San Andreas Fault System include the Concord, Calaveras, Hayward, and the San Andreas fault. There are no active faults located within San Joaquin County (County 2014).

According to the DOC Earthquake Hazards Zone Application (EQ Zapp) Map, there are no known active faults crossing the project site, and the site is not located within an Alquist Priolo Fault Zone (DOC 2023b). Therefore, ground rupture as a result of proposed project activities would be unlikely to occur. The impact would be less than significant.

ii. Strong seismic ground shaking?

**Less than significant impact.** There is always potential in California for seismic ground shaking; however, the proposed project would not construct new buildings, residences, or other aboveground structures that have the potential to be inhabitable or hazardous to humans or other structures in a ground-shaking event. The proposed project would provide scour mitigation underneath Harney Lane Bridge; however, no work would be done on the bridge itself. Additionally, as noted in question a.i), there are no known active faults crossing the project site and the site is not located within an Alquist Priolo Fault Zone (DOC 2023b). Therefore, the impact would be less than significant.

iii. Seismic-related ground failure, including liquefaction?

**Less than significant impact.** Liquefaction is the sudden loss of soil shear strength and sudden increase in porewater pressure caused by shear strains, which could result from an earthquake. Research has shown that saturated, loose to medium-dense sands with a silt content of less than about 25 percent located within the top 40 feet are most susceptible to liquefaction and surface rupture or lateral spreading. Slope instability can occur as a result of seismic ground motions and/or in combination with weak soils and saturated conditions.

The project site is not located within a Liquefaction Zone (DOC 2023b). The proposed project would include the installation of scour mitigation underneath Harney Lane Bridge. The scour mitigation measures under the bridge would be installed in conformance with FHWA and Caltrans guidelines. No work would be done on the bridge itself, and any risks associated with liquefaction would be similar to those that already exist. Therefore, the impact would be less than significant.

iv. Landslides?

**Less than significant impact.** Terrain in the project site is generally flat with an elevation of approximately 77 feet amsl. Due to the relatively flat topography and lack of steep slopes on the project site, landslides are unlikely to occur in the project area or in the immediate vicinity. As noted in question a.i), there are no known active faults crossing the project site and the site is not located within an Alquist Priolo Fault Zone (DOC 2023b). Therefore, there is little potential for seismically induced landslides. Additionally, the project site is not located within a Landslide Zone (DOC 2023b).

As the proposed project would provide scour mitigation to an existing bridge, the project is unlikely to be subject to landslides, and any risks associated with landslides would be similar to those that already exist. Therefore, the impact would be less than significant.

b) Result in substantial soil erosion or the loss of topsoil?

**Less than significant impact.** As noted in Section 9.X, Hydrology and Water Quality, project work is anticipated to occur when Paddy Creek is dry; therefore, temporary creek diversion and dewatering are not anticipated. Earth moving, and other construction related activities, could cause erosion and runoff of topsoil into the drainage facilities during construction, which could temporarily affect water quality of

downstream surface waters. However, temporary sediment and erosion control BMPs would be implemented. As outlined in the NES(MI), included as Appendix C to this IS/MND, potential erosion materials consisting of fiber, seed, commercial fertilizer, and/or water would be applied to embankment slopes, excavation slopes, etc. Other BMPs would include revegetating the work zone and establishing temporary water bars to reduce the potential for sheet erosion.

Additionally, the purpose of the project is to minimize scouring so a permanent benefit to water quality would result due to long-term reduction of sediment. Installation of scour mitigation would minimize erosion on and off-site. Therefore, the project would not result in substantial soil erosion or the loss of topsoil, and the impact would be less than significant.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

**Less than significant impact.** As noted under question a.i), a.iii), and a.iv), there is a less than significant potential for geologically related impacts to occur, including earthquakes, liquefaction, and landslides. The proposed project would include the installation of scour mitigation underneath Harney Lane Bridge in conformance with FHWA and Caltrans guidelines. No work would be done on the bridge itself. Therefore, the impact would be less than significant.

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?

**Less than significant impact.** Expansive soils are characterized by their potential “shrink-swell” behavior. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in certain fine-grained clay sediments from the process of wetting and drying. Clay minerals such as smectite, bentonite, montmorillonite, beidellite, vermiculite and others are known to expand with changes in moisture content. According to the soil survey data for San Joaquin County, close to half of the upper five feet of soils throughout the County have a low shrink-swell potential, a lesser portion is considered to have a moderate potential, and about an eighth of the area (primarily in the southwestern end of the county) has been mapped with a high potential (County 2014).

The soil on the project site consists of gravely silt, sand, clay, and sandy silt from 0 to 35 feet below ground surface. Below 35 feet, the soil consists of a mixture of poorly to well sorted sand and clay (WRECO 2021a). There are three dominant soil compositions in the general vicinity of the project: the Kingdon Series, Hollenbeck Series, and San Joaquin Series.

Although the project may be located in an area containing expansive soil, the scour mitigation would be installed in conformance with FHWA and Caltrans guidelines. No work would be done on the bridge itself. Any risks associated with expansive soils would be similar to those that already exist. Therefore, the project would not create substantial direct or indirect risks to life or property, and the impact would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

**No impact.** The proposed project would provide scour mitigation underneath Harney Lane Bridge. No septic tanks or alternative wastewater disposal systems are proposed. Therefore, no impact would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

**Less than significant impact with mitigation**. No previous surveys conducted in the proposed project area have identified the proposed project site as sensitive for paleontological resources or other geologically sensitive resources, nor have testing or ground disturbing activities performed to date uncovered any paleontological resources or geologically sensitive resources. The proposed project would also be located within an area previously disturbed by construction of the existing Harney Lane Bridge, existing stormwater or irrigation infrastructure, or historical agricultural practices. While the likelihood of encountering paleontological resources and other geologically sensitive resources is considered low, project-related ground disturbing activities could affect the integrity of a previously unknown paleontological or other geologically sensitive resource. Implementation of Mitigation Measure GEO-1 would reduce potentially significant impacts to a level of less than significant.

**Mitigation Measure GEO-1: Avoid and Minimize Impacts to Paleontological Resources**

In the event paleontological or other geologically sensitive resources (such as fossils or fossil formations) are identified during any phase of project construction, all excavations within 100 feet of the find shall be temporarily halted until the find is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the appropriate representative at the County who shall coordinate with the paleontologist as to any necessary investigation of the find. If the find is determined to be significant under CEQA, the County shall implement those measures which may include avoidance, preservation in place, or other appropriate measures, as outlined in Public Resources Code Section 21083.2.

## VIII. 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? | ☐ | ☐ | ☒ | ☐ |

GHG CalEEMod Output and Calculations prepared by HELIX is included as Appendix F to this IS/MND.

**Environmental Setting**

Global climate change refers to changes in average climatic conditions on Earth, including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by atmospheric gases. These gases are commonly referred to as GHGs because they function like a greenhouse by letting sunlight in but preventing heat from escaping, thus warming the Earth's atmosphere.

GHGs are emitted by natural processes and human (anthropogenic) activities. Anthropogenic GHG emissions are primarily associated with: (1) the burning of fossil fuels during motorized transport, electricity generation, natural gas consumption, industrial activity, manufacturing, and other activities; (2) deforestation; (3) agricultural activity; and (4) solid waste decomposition.

The GHGs defined under California's Assembly Bill (AB) 32, described below, include carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride ($SF_6$). Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Estimates of GHG emissions are commonly presented in carbon dioxide equivalents ($CO_2e$), which weigh each gas by its global warming potential (GWP). Expressing GHG emissions in $CO_2e$ takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only $CO_2$ were being emitted. GHG emissions quantities in this analysis are presented in metric tons (MT) of $CO_2e$. For consistency with United Nations Standards, modeling, and reporting of GHGs in California and the U.S. use the GWPs defined in the Intergovernmental Panel on Climate Change's (IPCC) Fourth Assessment Report (IPCC 2007): $CO_2$ – 1; $CH_4$ – 25; $N_2O$ – 298.

<u>GHG Reduction Regulations and Plans</u>

The primary GHG reduction regulatory legislation and plans (applicable to the project) at the State, regional, and local levels are described below. Implementation of California's GHG reduction mandates are primarily under the authority of CARB at the State level, SJVAPCD at the regional level, and the County at the local level.

**Executive Order S-3-05**: On June 1, 2005, Executive Order (EO) S-3-05 proclaimed that California is vulnerable to climate change impacts. It declared that increased temperatures could reduce snowpack in the Sierra Nevada, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To avoid or reduce climate change impacts, EO S-3-05 calls for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. Executive Orders are not laws and can only provide the governor's direction to State agencies to act within their authority to reinforce existing laws.

**Assembly Bill 32 – Global Warming Solution Act of 2006**: The California Global Warming Solutions Act of 2006, widely known as AB 32, required that CARB develop and enforce regulations for the reporting and verification of Statewide GHG emissions. CARB was directed by AB 32 to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill required CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG emission reductions.

**Executive Order B-30-15**: On April 29, 2015, EO B-30-15 established a California GHG emission reduction target of 40 percent below 1990 levels by 2030. The EO aligns California's GHG emission reduction targets with those of leading international governments, including the 28 nation European Union. California achieved the target of reducing GHGs emissions to 1990 levels by 2020, as established in AB 32. California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the goal established by EO S-3-05 of reducing emissions 80 percent under 1990 levels by 2050.

**Senate Bill 32**: Signed into law by Governor Brown on September 8, 2016, Senate Bill (SB) 32 (Amendments to the California Global Warming Solutions Action of 2006) extends California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a Statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EO B-30-15 of 80 percent below 1990 emissions levels by 2050.

**Assembly Bill 197**: A condition of approval for SB 32 was the passage of AB 197. AB 197 requires that CARB consider the social costs of GHG emissions and prioritize direct reductions in GHG emissions at mobile sources and large stationary sources. AB 197 also gives the California legislature more oversight over CARB through the addition of two legislatively appointed members to the CARB Board and the establishment a legislative committee to make recommendations about CARB programs to the legislature.

**Assembly Bill 1493- Vehicular Emissions of Greenhouse Gases**: AB 1493 (Pavley) requires that CARB develop and adopt regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State." On September 24, 2009, CARB adopted amendments to the Pavley regulations that intend to reduce GHG emissions in new passenger vehicles from 2009 through 2016. The amendments bind California's enforcement of AB 1493 (starting in 2009), while providing vehicle manufacturers with new compliance flexibility. In January 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single packet of standards called Advanced Clean Cars.

**Executive Order S-01-07**: This EO, signed by Governor Schwarzenegger on January 18, 2007, directs that a Statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by the year 2020. It orders that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established for California and directs CARB to determine whether a LCFS can be adopted as a discrete early action measure pursuant to AB 32. CARB approved the LCFS as a discrete early action item with a regulation adopted and implemented in April 2010.

Although challenged in 2011, the Ninth Circuit reversed the District Court's opinion and rejected arguments that implementing LCFS violates the interstate commerce clause in September 2013. Therefore, CARB is continuing to implement the LCFS Statewide.

**Senate Bill 350**: Approved by Governor Brown on October 7, 2015, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This will increase the use of Renewables Portfolio Standard eligible resources, including solar, wind, biomass, and geothermal. In addition, large utilities are required to develop and submit Integrated Resource Plans to detail how each entity will meet their customers resource needs, reduce GHG emissions, and increase the use of clean energy.

**Senate Bill 375:** SB 375, the Sustainable Communities and Climate Protection Act of 2008, supports the State's climate action goals to reduce GHG emissions through coordinated transportation and land use planning with the goal of more sustainable communities. Under the Sustainable Communities Act, CARB sets regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established these targets for 2020 and 2035 for each region covered by one of the State's metropolitan planning organizations (MPOs). CARB periodically reviews and updates the targets, as needed.

Each of California's MPOs must prepare a Sustainable Communities Strategy (SCS) as an integral part of its regional transportation plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets. Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. CARB must review the adopted SCS to confirm and accept the MPO's determination that the SCS, if implemented, would meet the regional GHG targets. If the combination of measures in the SCS would not meet the regional targets, the MPO must prepare a separate alternative planning strategy (APS) to meet the targets. The APS is not a part of the RTP. Qualified projects consistent with an approved SCS or Alternative Planning Strategy categorized as "transit priority projects" would receive incentives to streamline CEQA processing.

**Senate Bill 100**: Approved by Governor Brown on September 10, 2018, SB 100 requires that all retail sales of electricity to California end-use customers be procured from 100 percent eligible renewable energy resources and zero-carbon resources by the end of 2045.

**Executive Order N-79-20**: EO N-79-20, signed by Governor Newsom on September 23, 2020, establishes three goals for the implementation of zero emissions vehicles in California: first, 100 percent of in-State sales of new passenger cars and trucks will be zero-emissions by 2035; second, 100 percent of medium- and heavy-duty vehicles in the State will be zero-emissions vehicles by 2045 for all operations where feasible, and by 2035 for drayage trucks; and third, 100 percent of off-road vehicles and equipment will be zero emissions by 2035 where feasible.

**Assembly Bill 1279**: Approved by Governor Newsom on September 16, 2022, AB 1279, the California Climate Crisis Act, declares the policy of the State to achieve net zero GHG emissions as soon as

possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter, and to ensure that by 2045, Statewide anthropogenic GHG emissions are reduced to at least 85 percent below the 1990 levels. AB 1279 anticipates achieving these policies through direct GHG emissions reductions, removal of $CO_2$ from the atmosphere (carbon capture), and an almost complete transition away from fossil fuels.

**Senate Bill 905**: Approved by Governor Newsom on September 16, 2022, SB 905, Carbon Sequestration: Carbon Capture, Removal, Utilization, and Storage Program, requires CARB to establish a Carbon Capture, Removal, Utilization, and Storage Program to evaluate the efficacy, safety, and viability of carbon capture, utilization, or storage technologies and $CO_2$ removal technologies and facilitate the capture and sequestration of $CO_2$ from those technologies, where appropriate. SB 905 is an integral part of achieving the State policies mandated in AB 1279.

**California Air Resources Board Scoping Plan**: The Scoping Plan is a strategy CARB develops and updates at least once every five years, as required by AB 32. It lays out the transformations needed across our society and economy to reduce emissions and reach our climate targets. The current 2022 Scoping Plan is the third update to the original plan that was adopted in 2008. The initial 2008 Scoping Plan laid out a path to achieve the AB 32 mandate of returning to 1990 levels of GHG emissions by 2020, a reduction of approximately 15 percent below business as usual. The 2008 Scoping Plan included a mix of incentives, regulations, and carbon pricing, laying out the portfolio approach to addressing climate change and clearly making the case for using multiple tools to meet California's GHG targets. The 2013 Scoping Plan assessed progress toward achieving the 2020 mandate and made the case for addressing short-lived climate pollutants (SLCPs). The 2017 Scoping Plan also assessed the progress toward achieving the 2020 limit and provided a technologically feasible and cost-effective path to achieving the SB 32 mandate of reducing GHGs by at least 40 percent below 1990 levels by 2030.

On December 15, 2022, CARB approved the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan). The 2022 Scoping Plan lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by AB 1279. The actions and outcomes in the plan will achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels; further reductions in SLCPs; support for sustainable development; increased action on natural and working lands to reduce emissions and sequester carbon; and the capture and storage of carbon (CARB 2022).

**San Joaquin Valley Air Pollution Control District:** In December 2009, the SJVAPCD adopted the following guidance documents applicable to the project:

- Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA (SJVAPCD 2009a), and

- District Policy: Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency (SJVAPCD 2009b).

This guidance and policy are the documents referenced in the SJVAPCD's *Guidance for Assessing and Mitigating Air Quality Impacts,* adopted in March 2015 (SJVAPCD 2015). Consistent with the District Guidance and District Policy above, SJVAPCD acknowledges the current absence of numerical thresholds, and recommends a tiered approach to establish the significance of the GHG impacts on the environment:

1. If a project complies with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located, then the project would be determined to have a less than significant individual and cumulative impact for GHG emissions;

2. If a project does not comply with an approved GHG emission reduction plan or mitigation program, then it would be required to implement best performance standards (BPS); and

3. If a project is not implementing BPS, then it should demonstrate that its GHG emissions would be reduced or mitigated by at least 29 percent, compared to business-as-usual.

The SJVAPCD adopted a Climate Change Action Plan (CAP) in 2008 and issued guidance for development project compliance with the plan in 2009. The guidance adopted an approach that relies on the use of BPS to reduce GHG emissions. Projects implementing BPS would be determined to have a less than cumulatively significant impact. For projects not implementing BPS, demonstration of a 29 percent reduction in project-specific (i.e., operational) GHG emissions from business-as-usual conditions is required to determine that a project would have a less than cumulatively significant impact (SJVAPCD 2009a). Both the SJVAPCD CAP and the guidance for development project compliance are limited to achieving the State 2020 GHG reduction goals mandated by AB 32. The SJVAPCD CAP and the guidance for development project compliance do not address California's post-2020 GHG reduction goals.

**San Joaquin Council of Governments:** The San Joaquin Council of Governments (SJCOG) is preparing a Climate Adaptation & Resiliency Study to incorporate strategies set forth in the SJCOG's 2018 RTP/SCS. Those strategies include reducing transportation-related emissions, but do not set quantitative thresholds for GHG emissions (SJCOG 2018).

Significance Criteria

The SJVAPCD has adopted the guidance in Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA and the policy, Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency. The guidance and policy rely on the use of Best Performance Standards (BPS) to assess the significance of project specific GHG emissions on global climate change during the environmental review process. However, SJVAPCD's adopted BPS are specifically directed at reducing GHG emissions from stationary sources. The SJVAPCD guidance does not limit a Lead Agency's authority in establishing its own process and guidance for determining significance of project-related impacts on global climate change.

In the event that a local air district's guidance for addressing GHG impacts does not use numerical GHG emissions thresholds, at the Lead Agency's discretion, GHG thresholds adopted by neighboring California air districts may be used to determine impacts. The Sacramento Metropolitan Air Quality Management District (SMAQMD) has adopted a GHG threshold of 1,100 MT $CO_2e$ per year for a project's construction emissions and a threshold of 10,000 MT $CO_2e$ per year for operational emissions for industrial/stationary source projects (SMAQMD 2020). Both of these thresholds are based on an analysis of a 90 percent emissions capture rate—ensuring that 90 percent of emissions would be subject to further review and analysis of potential alternatives and mitigation measures. These thresholds have been established by the SMAQMD in an effort to meet Statewide GHG emissions reduction goals and the justification for these thresholds established by SMAQMD is applicable for evaluating the significance of project GHG emissions.

**Impact Analysis**

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

**Less than significant impact.**

Construction

GHG emissions would be generated by the project during construction, including vehicle engine exhaust from construction equipment, on-road hauling trucks, vendor trips, and worker commuting trips. GHG emissions were calculated using CalEEMod and the GHG CalEEMod model output and calculations sheets are included in Appendix F to this IS/MND.

The result of the GHGs related to the construction of the project would be temporary. As shown in Table 5, *Construction GHG Emissions,* the annual project construction would not exceed the SMAQMD threshold. The impact would be less than significant.

**Table 5: CONSTRUCTION GHG EMISSIONS**

| Year of Emissions | Emissions ($MT CO_2e$) |
|---|---|
| 2026 | 72 |
| SMAQMD Threshold | 1,100 |
| **Exceed Threshold?** | **No** |

Source: CalEEMod (output data is provided in Appendix F)

Operation

Operational emissions were not calculated using CalEEMod as it is assumed operation of the proposed scour mitigation would produce negligible operational emissions beyond what currently exists. Therefore, the project's operational emissions would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The impact would be less than significant.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

**Less than significant impact.** There are numerous State plans, policies, and regulations adopted for the purpose of reducing GHG emissions. The original overall State plan and policy was AB 32, the California Global Warming Solutions Act of 2006. The quantitative goal of AB 32 was to reduce GHG emissions to 1990 levels by 2020. SB 32 extended the requirements of AB 32 by requiring further reductions of 40 percent below 1990 levels by 2030. AB 1279, the California Climate Crisis Act, was approved on September 16, 2022, and declares the policy of the State to achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter, and to ensure that by 2045, Statewide anthropogenic GHG emissions are reduced to at least 85 percent below the 1990 levels. The 2022 CARB Scoping Plan lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by AB 1279. Statewide plans and regulations such as GHG emissions standards for

vehicles (AB 1493), the LCFS, and regulations requiring an increasing fraction of electricity to be generated from renewable sources are being implemented at the Statewide level; as such, compliance at the project level is not addressed. Therefore, the proposed project would not conflict with those plans and regulations.

The San Joaquin Council of Governments (SJCOG) is preparing a Climate Adaptation & Resiliency Study to incorporate strategies set forth in the SJCOG's 2018 RTP/SCS (SJCOG 2018). However, the County does not currently have a CAP or other GHG reduction plan. Therefore, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, and the impact would be less than significant.

# IX. 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 handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | ☐ | ☐ | ☐ | ☒ |
| d) | Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it 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? | ☐ | ☐ | ☒ | ☐ |

An ISA was prepared by WRECO in October 2021 and is included as Appendix G to this IS/MND.

**Environmental Setting**

The project is located within a remote, rural area within the County. The project site is located within the Lodi Unified School District. The nearest school to the project site is Harmoney Elementary School, located approximately 0.5 mile west of the project site. The closest private airport to the project site is Wallom Field-8CA8, located approximately 3 miles southwest of the project site. The closest public airport to the project site is Stockton Metropolitan Airport, located approximately 4.5 miles southwest of the project site.

Hazardous materials include all flammable, reactive, corrosive, or toxic substances, which, because of these properties, pose potential harm to the public or environment. The California Code of Regulations (CCR) defines a hazardous material or hazardous waste as a substance that, because of physical or chemical properties, quantity, concentration, or other characteristics, may either: (1) cause an increase in mortality or an increase in serious, irreversible, or incapacitating, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of, or otherwise managed (County 2014).

Numerous federal and State laws regulate hazardous materials and wastes, such as the California Environmental Protection Agency (Cal/EPA) and Department of Toxic Substances Control (DTSC). However, depending on the waste, the Office of the State Fire Marshal (OSFM), the SWRCB, or another agency may be involved. Caltrans issues standards and specifications for managing hazardous wastes associated with federally funded projects; these directives add various measures for contractors to perform, and where appropriate, reference and incorporate federal and State regulations that address hazardous waste. Locally, the San Joaquin County Environmental Health Department (SJCEHD), San Joaquin County Office of Emergency Services (SJCOES), and the SJVAPCD have responsibility for enforcing some State standards (County 2014).

The following databases were reviewed for the project site and surrounding area to identify potential hazardous contamination sites: the SWRCB's GeoTracker tool (SWRCB 2023), California DTSC's EnviroStor online tool (DTSC 2023); and the USEPA's Superfund National Priorities List (USEPA 2023). Based on the results of the databases reviewed, one record within a 1-mile radius of the project site was listed on GeoTracker. This site was closed in 1996, and no other hazardous waste sites are documented on or near the project site (WRECO 2021a).

Impact Analysis

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

**Less than significant impact.** During proposed project construction, oil, gasoline, diesel fuel, solvents, and other hazardous materials may be present on the project site. If spilled, these substances could pose a risk to the environment and to human health. However, the routine transport, use, and disposal of hazardous materials would be subject to local, State, and federal regulations to minimize risk and exposure. Therefore, in compliance with these regulations, the proposed project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials. The impact would be less than significant.

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

**Less than significant impact with mitigation.** The proposed project is not anticipated to create a substantial hazard to the public or environment through foreseeable hazardous material upset or accidental release as the proposed scour mitigation would not require large volumes of hazardous materials during project construction or operation.

The ISA investigation conducted by WRECO evaluated the project area for the presence of recognized environmental conditions (REC). The American Society of Testing and Materials (ASTM) defines a REC as the presence or likely presence of any hazardous substances or petroleum products on a property under

conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property (WRECO 2021a). The project-specific ISA identified five potential RECs in the project area including Asbestos-Containing Materials (ACM), Agricultural Fields, Aerially Deposited Lead (ADL), Excavated Soil along Riverbanks, and Utility Poles (Treated Wood Waste) with Pole-Mounted Electrical Transformers. Table 6, *Summary of RECs and Recommendations,* provides a summary of the RECs found and the recommended action associated with each REC.

**Table 6: SUMMARY OF RECS AND RECOMMENDATIONS**

| Description | Evidence of REC Found | Recommended Actions |
|---|---|---|
| Asbestos Containing Materials | Due to the age of the bridge, there is potential for ACM within the structure. | N/A as described below. |
| Agricultural Fields | Due to agricultural use of the land, pesticides, herbicides, and heavy metals may be present along the soils at the Project site adjacent to the roadway. | See Mitigation Measure HAZ-1, below. |
| Aerially Deposited Lead | There is potential for elevated levels of lead in exposed soil from historical vehicle emissions, since leaded gasoline was used through the 1970s and the soils within the Project area may contain ADL. | See Mitigation Measure HAZ-1, below. |
| Excavated Soil along Riverbanks | Excavated soil should be tested for constituents of concern (COC) so that soil near the footings can be evaluated for soil disposal or reuse (if feasible), based on detected contaminants | See Mitigation Measure HAZ-1, below. |
| Utility Poles (Treated Wood Waste) with Pole Mounted Electrical Transformers | There is potential for the presence of hazardous chemicals from treated wood poles (utility poles) along the side of the road. Treated wood contains a variety of chemicals (arsenic, chromium, copper, creosote, and pentachlorophenol) that can runoff and impact soil. There is potential for PCBs in pole mounted electrical transformers near the Project site. | N/A as described below. |

Source: WRECO 2021a

The proposed project would include the installation of scour mitigation underneath Harney Lane Bridge. No work would be done on the bridge itself, and no demolition would be required. As no demolition of the bridge is proposed under the project, ACM would not be exposed. Therefore, impacts from potential ACM in the bridge would be less than significant, and no mitigation is required.

Additionally, no utility relocations are anticipated for the proposed project. Therefore, the potential presence of hazardous chemicals from treated wood poles (utility poles) along the side of the road would be less than significant, and no mitigation is required.

However, there is the potential that pesticides, herbicides, heavy metals, elevated levels of lead, and/or COC would be present in the soils within the project area. Therefore, a Preliminary Site Investigation would be conducted as outlined in Mitigation Measure HAZ-1. With implementation of Mitigation Measure HAZ-1, impacts would be less than significant.

**Mitigation Measure HAZ-1: Preliminary Site Investigation**

Prior to construction, the County shall retain a qualified professional to prepare a Preliminary Site Investigation (PSI) to sample soil for pesticides, heavy metals, total lead, and Constitutes of Concern (COC) in areas of planned soil disturbance. The County shall implement the recommendations identified in the PSI, if any, prior to initiating any ground disturbance activities.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

**No impact.** The nearest schools to the project site are Harmoney Elementary School, located approximately 0.5 mile west of the project site, and Point Quest Education-Central Valley Campus, located approximately one mile southwest of the project site. As the project site is not located within one-quarter mile of an existing or proposed school, no impact would occur.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

**Less than significant impact.** The following databases were reviewed for the project site and surrounding area to identify potential hazardous contamination sites: the SWRCB's GeoTracker tool (SWRCB 2023), California DTSC's EnviroStor online tool (DTSC 2023); and the USEPA's Superfund National Priorities List (USEPA 2023). Based on the results of the databases reviewed, one record within a 1-mile radius of the project site was listed on GeoTracker. However, this site was closed in 1996 and poses no potential pollution risk to the project site (WRECO 2021a). No other hazardous waste sites are documented on or near the project site. Therefore, the impact would be less than significant.

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?

**No impact.** The project site is not located within an airport land use plan or within two miles of a public or private airport/airstrip (Coffman Associates 2018). The closest private airport to the project site is Wallom Field-8CA8, located approximately 3 miles southwest of the project site. The closest public airport to the project site is Stockton Metropolitan Airport, located approximately 4.5 miles southwest of the project site. Due to the distance from the closest private and public airport, the project would not result in a safety hazard for people residing or working in the project area. No impact would occur.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

**Less than significant impact.** To provide scour protection, the project is proposing to install open cell ACB scour mitigation underneath Harney Lane Bridge. No permanent ROW is anticipated; however, a TCE would be required for contractor access and staging as well as for the work performed to form the cut-off wall. A temporary construction entrance would be located on the northern side of Harney Lane, west of Paddy Creek. It is anticipated that Harney Lane would remain open during construction. Once construction is complete, Harney Lane Bridge would continue to be used in a similar condition prior to construction. As no road closure is proposed, the proposed project would not interfere with an

emergency response plan or emergency evacuation plan. Therefore, the impact 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 impact.** The proposed project site is surrounded by agriculture and rural residential homes. According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zone Viewer Map, the project site is located within a Local Responsibility Area (LRA; CAL FIRE 2023) but is not located within a Very High Fire Hazard Severity Zone (VHFHSZ; CAL FIRE 2023). Additionally, the proposed project would provide scour mitigation underneath Harney Lane Bridge which would not expose people or structures to significant risks from wildland fires. Therefore, the impact would be less than significant.

# X. Hydrology and Water Quality

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the 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 which 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 off- site? | ☐ | ☐ | ☒ | ☐ |
| iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff? | ☐ | ☐ | ☒ | ☐ |
| 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? | ☐ | ☐ | ☒ | ☐ |

A Water Quality Memorandum was prepared by WRECO in June 2021 and is included as Appendix H to this IS/MND.

**Environmental Setting**

Surface Water

The project site is located within the Eastern San Joaquin Watershed in the San Joaquin Valley (WRECO 2021b). The County lies entirely within the San Joaquin River Basin which is bounded topographically and geologically by the bedrock of the Diablo Range on the west and the Sierra Nevada to the east. The San Joaquin River flows in a southeast to northwest direction from the Sierra Nevada through the County into the Sacramento-San Joaquin Delta, San Francisco Bay, and ultimately the Pacific Ocean.

Both the headwaters and ultimate destination of the San Joaquin River and its tributaries are outside of the County. The Sacramento-San Joaquin Delta is the largest estuary on the west coast and provides drinking and agricultural water to multiple areas within California. Four major rivers and streams drain from the western slope of the Sierra Nevada traversing or bordering the County, including Calaveras River, Mokelumne River, Stanislaus River, and San Joaquin River (County 2014). Paddy Creek is a small creek that joins Bear Creek just east of SR 88, transecting underneath Harney Lane.

Water-bearing formations of significance in the Eastern San Joaquin sub-basin consist of the Alluvium and Modesto/Riverbank Formations, Flood Basin Deposits, Laguna Formation, and Mehrten Formation. The Mehrten Formation is considered to be the oldest freshwater-bearing formation on the east side of the basin. Annual precipitation in this sub-basin ranges from about 11 inches in the southwest to about 25 inches in the northeast (DWR 2006).

Groundwater

The project area is in the San Joaquin Hydrologic Region, San Joaquin Valley Groundwater Basin, Eastern San Joaquin Groundwater Subbasin, as defined by the California Department of Water Resources (WRECO 2021b).

Groundwater overdraft in Eastern San Joaquin County has been a growing problem with levels declining at a rate of approximately 113,000 acre-feet per year (WRECO 2021b). The reduction in groundwater levels has allowed migration of saline water from below the Sacramento–San Joaquin Delta area to the western portion of the aquifer. Two groundwater quality problems affect the use of groundwater, which are saline intrusion and agricultural chemical contamination. The poor-quality groundwater in some parts of the San Joaquin County is barely adequate for agricultural activities and is not acceptable for urban uses. Based on a review of groundwater monitoring data near the project (Unocal Station approximately 5 miles west of project area), the depth to shallow groundwater ranges from 69 to 75 feet below ground surface, and groundwater flow direction is generally to the south-southeast (WRECO 2021b).

Flood Hazard Areas

San Joaquin County receives runoff from over 40 percent of the land area in California (County 2014). Flood events from rainstorms generally occur between November and April and are characterized by high peak flows of moderate duration. Snowmelt floods, which normally occur between April and June, have larger water volumes and last longer than rain flooding. Intensive rainstorms or snowmelt generally cause flooding because of levee overtopping, levee failure, or localized drainage problems (County 2014).

100-year Floods

The Federal Emergency Management Agency (FEMA) provides information on flood hazard and frequency for cities and counties on its Flood Insurance Rate Maps (FIRMs). FEMA identifies designated zones to indicate flood hazard potential (County 2014). The project site is located within Flood Hazard Zone AH, areas with 1 percent annual chance of shallow flooding (FEMA 2023).

The floodplains covering unincorporated lands in the Thornton, Delta, Lathrop, and Manteca planning areas indicate flooding from the San Joaquin River and various sources of Delta flooding. Most of the County lands affected by FEMA floodplains are rural lands outside of communities (County 2014).

**Impact Analysis**

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

**Less than significant impact.** The project proposes work within Paddy Creek. Construction is anticipated to occur when the creek is dry; no diversion or dewatering is anticipated.

The Construction General Permit (NPDES No. CAS000002, State Water Resources Control Board Order No. 2009-0009-DWQ, adopted on September 2, 2009) became effective on July 1, 2010, and was amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ. If the proposed project would disturb soil area greater than one acre, the project would be required to prepare a SWPPP and would be required to implement construction BMPs. The project area is 0.36 acre; therefore, preparation of a SWPPP is not required.

A 404 Clean Water Act Nationwide Permit from the USACE, a 401 Water Quality Certification from the RWQCB, and a Fish and Game Code 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife would be required for this project.

In compliance with the required permits and with implementation of the required BMPs, the impact would be less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

**Less than significant impact.** The Eastern San Joaquin Groundwater Basin Groundwater Management Plan identifies the project as within the Farmington Groundwater Recharge Area, but not within a sole-source aquifer (WRECO 2021b). As the proposed project would include the installation of scour mitigation underneath Harney Lane Bridge, there would be no increase in population. Therefore, impacts on recharge capabilities are not anticipated. The impact would be less than significant.

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

    i. Result in substantial erosion or siltation on- or off-site?

**Less than significant impact.** Project work is anticipated to occur when Paddy Creek is dry; therefore, temporary creek diversion and dewatering are not anticipated. Earth moving, and other construction related activities could cause erosion and runoff of topsoil into the drainage facilities during construction, which could temporarily affect water quality of downstream surface waters. However, temporary sediment and erosion control BMPs would be implemented to minimize erosion on and off-site. As outlined in the NES(MI), included as Appendix C to this IS/MND, potential erosion materials consisting of fiber, seed, commercial fertilizer, and/or water would be applied to embankment slopes, excavation slopes, etc. Other BMPs would include revegetating the work zone and establishing temporary water bars to reduce the potential for sheet erosion.

Additionally, the purpose of the project is to minimize scouring so a permanent benefit to water quality would result due to long-term reduction of sediment. Installation of scour mitigation would minimize erosion on and off-site. Therefore, the impact would be less than significant.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site?

**Less than significant impact**. As noted in question c.i), project work is anticipated to occur when Paddy Creek is dry; temporary creek diversion and dewatering are not anticipated. Therefore, the project would not substantially increase the rate or amount of surface runoff that would result in flooding. The impact would be less than significant.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff?

**Less than significant impact.** As noted in question c.i), project work is anticipated to occur when Paddy Creek is dry; therefore, temporary creek diversion and dewatering are not anticipated. As project construction would occur during dry season, the risk of contaminants posing risks downstream is extremely low in the event of an accidental spill. Therefore, the project would not result in increased runoff or substantial additional sources of polluted runoff. The impact would be less than significant.

iv. Impede or redirect flood flows?

**Less than significant impact.** As noted in question c.i), project work is anticipated to occur when Paddy Creek is dry; therefore, temporary creek diversion and dewatering are not anticipated. Additionally, temporary sediment and erosion control BMPs would be implemented to minimize erosion on and off-site. The purpose of the project is to minimize scouring so a permanent benefit to water quality would result due to long-term reduction of sediment. Therefore, no flood flows would be impeded or redirected from the proposed project. The 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 impact with mitigation.** The proposed project is not located within a tsunami or seiche zone. However, the project is located within Flood Hazard Zone AH, which is a Special Flood Hazard Area that is subject to inundation by the one percent annual chance flood (100-year flood) and has base flood elevations determined (FEMA 2023).

Fueling or maintenance of construction vehicles would occur within the project area during construction, so a risk of accidental spills or releases of fuels, oils, trash, or other potentially toxic materials may occur. An accidental release of these materials could pose a threat to water quality if contaminants enter downstream receiving water. The magnitude of the impact from an accidental release depends on the amount and type of material spilled. Project construction would occur during dry season, so in the event of an accidental spill, the risk of contaminants posing risks downstream is extremely low.

As discussed under Section 9.IX, Hazards and Hazardous Materials, the proposed project would include the installation of scour mitigation underneath Harney Lane Bridge. No work would be done on the bridge itself, and no demolition would be required. As no demolition of the bridge is proposed under the

project, ACM would not be exposed. Therefore, impacts from potential ACM in the bridge would be less than significant, and no mitigation is required.

Additionally, no utility relocations are anticipated for the proposed project. Therefore, the potential presence of hazardous chemicals from treated wood poles (utility poles) along the side of the road would be less than significant, and no mitigation is required.

However, there is the potential that pesticides, herbicides, heavy metals, elevated levels of lead, and/or COC would be present in the soils within the project area. Therefore, a Preliminary Site Investigation would be conducted as outlined in Mitigation Measure HAZ-1. With implementation of Mitigation Measure HAZ-1, impacts would be less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

**Less than significant impact.** As discussed under question a) above, impacts regarding water quality would be less than significant as construction is anticipated to occur when Paddy Creek is dry; no diversion or dewatering is anticipated. Temporary sediment and erosion control BMPs would be implemented to minimize erosion on and off-site. As outlined in the NES(MI), included as Appendix C to this IS/MND, potential erosion materials consisting of fiber, seed, commercial fertilizer, and/or water would be applied to embankment slopes, excavation slopes, etc. Other BMPs would include revegetating the work zone and establishing temporary water bars to reduce the potential for sheet erosion. A 404 Clean Water Act Nationwide Permit from the USACE, a 401 Water Quality Certification from the RWQCB, and a Fish and Game Code 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife would be required for the proposed project.

Therefore, in compliance with the required permits with implementation of BMPs, the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The impact would be less than significant.

# XI. 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 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? | ☐ | ☐ | ☒ | ☐ |

**Environmental Setting**

The County General Plan establishes general land use categories (designations) for the unincorporated portions of San Joaquin County. The San Joaquin County zoning ordinance implements the County General Plan's goals and policies. The project site has a County General Plan land use designation of Resource Conservation (OS/RC). The OS/RC designation provides for areas with significant natural resources that should remain in open space, used for recreation, or preserved and used for resource production (e.g., mining) (County 2016). The project site is partially zoned General Agriculture, 40 acres (AG-40) and Limited Agriculture, 5 acres (AL-5) by the County.

**Impact Analysis**

a) Physically divide an established community?

**No impact.** The proposed project would provide scour mitigation underneath the existing Harney Lane Bridge. No work is proposed on the bridge structure itself. Therefore, the project would not divide an established community, and no impact would occur.

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

**Less than significant impact.** The proposed project includes the installation of open cell ACB scour mitigation underneath Harney Lane Bridge. No permanent ROW is anticipated; however, a TCE would be required for contractor access and staging as well as for the work performed to form the cut-off wall. The project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, the impact would be less than significant.

## XII. 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? | ☐ | ☐ | ☐ | ☒ |

**Environmental Setting**

The primary extractive resources in San Joaquin County are sand and gravel aggregate. Peat soil, placer gold, and silver are extracted to a much lesser extent. Mining activities are monitored by the State Office of Mining Reclamation (OMR) and the County Public Works Department to ensure compliance with applicable laws, to promote reclamation that is cost-effective and beneficial to end-uses, and to protect public health and safety. As of 2013, the OMR identified a total of 41 mining sites within San Joaquin County, with 13 active mines and 4 newly permitted mines. The remaining mines are either closed or idle. Nearly all of the mines listed are related to the extraction and processing of sand and gravel aggregate and are located near sand and gravel deposits in the southwest and northeast areas of the County (County 2014).

**Impact Analysis**

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?

**No impact.** The project site does not include any mineral resources (DOC 2023c). Additionally, the project site is not within or adjacent to any active mining operations (DOC 2023d). Therefore, implementation of the project would not result in the loss of availability of mineral resources or locally important mineral resource recovery site, and no impact would occur for questions a) and b).

## XIII. Noise

| | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| Would the project result in: | | | | | |
| a) | Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☐ | ☐ | ☒ | ☐ |
| 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 or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☒ | ☐ |

**Noise Metrics**

All noise-level and sound-level values presented herein are expressed in terms of decibels (dB), with A weighting, abbreviated "dBA," to approximate the hearing sensitivity of humans. Time averaged noise levels of one hour are expressed by the symbol "$L_{EQ}$" unless a different time period is specified. Maximum noise levels are expressed by the symbol "$L_{MAX}$."

Because decibels are logarithmic units, $S_{PL}$ cannot be added or subtracted through standard arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dBA higher than from one source under the same conditions. For example, if one automobile produces an $S_{PL}$ of 70 dBA when it passes an observer, two cars passing simultaneously would not produce 140 dBA—rather, they would combine to produce 73 dBA. Under the decibel scale, three sources of equal loudness together produce a sound level 5 dBA louder than one source.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1 dBA changes in sound levels, when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000 Hertz [Hz]–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dBA are generally not perceptible. It is widely accepted, however, that people begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5 dBA increase is generally perceived as a distinctly noticeable increase, and a 10 dBA increase is generally perceived as a doubling of loudness.

**Vibration Metrics**

Groundborne vibration consists of rapidly fluctuating motions or waves transmitted through the ground with an average motion of zero. Sources of groundborne vibrations include natural phenomena and anthropogenic causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions). Peak particle velocity (PPV) is commonly used to quantify vibration amplitude. The PPV, with units of inches per second (in/sec), is defined as the maximum instantaneous positive or negative peak of the vibration wave.

**Environmental Setting**

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Noise-sensitive land uses typically include residences, hospitals, schools, daycare facilities, transient lodging, libraries, and certain types of recreational uses. Noise-sensitive receivers are found throughout San Joaquin County (County 2014). The closest noise sensitive land uses (NSLU) are residential properties located approximately 300 feet from the Harney Lane Bridge.

Stationary Noise Sources

Proposed noise-sensitive land uses that would be affected by existing or planned stationary noise sources would be required to mitigate the noise exposure according to the County's standards presented in Table 7, *Maximum Noise Exposure Criteria for Stationary Noise Sources*.

**Table 7: MAXIMUM NOISE EXPOSURE CRITERIA FOR STATIONARY NOISE SOURCES**

| Noise Descriptor | Daytime (7 a.m. – 10 p.m.) | Nighttime (10 p.m. – 7 a.m.) |
|---|---|---|
| Hourly $L_{EQ}$ | 50 | 45 |
| $L_{MAX}$ | 70 | 65 |

Source: County 2014
Note: Standards are applied at the outdoor activity area of the receiving land use. If no outdoor activity area is known, the standard shall be applied at the property line of the receiving land use. Each of the criteria shall be reduced by 5 dBA for impulsive noise, tonal noise, or noise consisting primarily of speech and/or music.
$L_{EQ}$ = time averaged noise level; $L_{MAX}$ = maximum noise level

**Impact Analysis**

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

**Less than significant impact.** Construction of the proposed project would commence in May 2026 and would take three to four months to complete. To provide scour protection, the project is proposing to install open cell ACB around the piers and abutments. The ACB would be placed on geotechnical fabric, and the open cells would be filled with aggregate. While the maximum depth of excavation is anticipated to be 3 feet, the exact depth would be determined during design of the improvements. Construction activities would include grading and proposed construction equipment would include one grader, one rubber-tired dozer, and one tractor/loader/backhoe (See Appendix B). Construction

equipment would not all operate at the same time or location and would not be in constant use during the 8-hour operating day. Construction would occur between daytime hours, 7:00 a.m. and 10:00 p.m., per the County's noise standards. As construction would be short-term and would occur within the County's standard daytime hours, the impact would be less than significant.

The operation of the proposed project would not include any stationary noise sources, and the project is not anticipated to result in permanent change in traffic noise on Harney Lane. Therefore, the impact would be less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

**Less than significant impact.** The proposed project would not include components that would result in excessive groundborne vibration. While equipment in use during construction may result in minimal amounts of groundborne vibration, these effects would be temporary and not excessive. Therefore, a less than significant impact associated with groundborne vibration would occur, and no mitigation would be necessary.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

**Less than significant impact.** The proposed project site is not located within an airport land use plan or within two miles of a public or private airport/airstrip (Coffman Associates 2018). The closest private airport to the project site is Wallom Field-8CA8, located approximately 3 miles southwest of the project site. The closest public airport to the project site is Stockton Metropolitan Airport, located approximately 4.5 miles southwest of the project site. Due to the distance from both the closest private and public airport, the project would not expose people residing or working in the project area to excessive noise levels. The impact would be less than significant.

## XIV. Population and Housing

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | ☐ | ☐ | ☐ | ☒ |
| b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ |

**Environmental Setting**

The County population is concentrated in the urban areas, primarily located in the central one-third of the County, between SR 99 and I-5. The percentage of people living in the unincorporated areas has decreased, but a substantial percentage still resides there. Most of these people live around the fringes of Stockton, in Mountain House, or in other unincorporated urbanized communities. The County assumes the total population in 2035 would be about 945,300 (County 2016).

**Impact Analysis**

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

**No impact.** The proposed project would provide scour mitigation underneath Harney Lane Bridge. No work is proposed on the bridge structure itself. The project would not include the construction or replacement of homes or businesses and thus would not directly induce population growth. Additionally, the project would not increase Harney Lane's capacity, and the bridge would continue to be used in a similar condition. Therefore, no impact would occur.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

**No impact.** As mentioned in question a), the proposed project would provide scour mitigation underneath Harney Lane Bridge, and no work would be done on the bridge structure itself. Therefore, the project would not displace existing people or housing. No impact would occur.

## XV. Public Services

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | | | | |
| a) Fire protection? | ☐ | ☐ | ☒ | ☐ |
| b) Police protection? | ☐ | ☐ | ☒ | ☐ |
| c) Schools? | ☐ | ☐ | ☐ | ☒ |
| d) Parks? | ☐ | ☐ | ☐ | ☒ |
| e) Other public facilities? | ☐ | ☐ | ☐ | ☒ |

**Environmental Setting**

Fire Protection

The Linden Peters and Mokelumne Fire Districts provide fire protection services for the project site. Fire protection is also provided by CAL FIRE. The nearest fire station is the Mokelumne Rural Fire Station, located approximately 3 miles north of the project site.

Police Protection

Police services in unincorporated areas of San Joaquin County are provided by the San Joaquin County Sheriff Department. The California Highway Patrol assists in maintaining routine patrols and investigating traffic accidents on public roads in unincorporated areas. The closest police station is the Lodi Police Department, located approximately 6 miles northwest of the project site.

Schools

The project site is located within the Lodi Unified School District. The nearest schools to the project site are Harmoney Elementary School, located approximately 0.5 mile west of the project site, and Point Quest Education-Central Valley Campus, located approximately one mile southwest of the project site.

Parks

San Joaquin County has several regional park facilities that offer a wide variety of recreational opportunities. The San Joaquin County Parks and Recreation department manages the operation and expansion of all County-owned regional, community, and neighborhood park facilities (County 2014). There are no parks located within the project area.

Libraries

The Stockton-San Joaquin County Public Library system offers public library services throughout the County, with a collection of over one million items and an annual circulation of nearly 2.1 million items in 2008. Funding for the library system is provided through the City of Stockton, San Joaquin County, and the State of California through Public Library Foundation Program funding (County 2014). There are no libraries located within the project area.

**Impact Analysis**

a) Fire protection?

**Less than significant impact.** The project area currently receives service from the Linden Peters and Mokelumne Fire Districts; service is also provided by CAL FIRE. The proposed project would provide scour mitigation underneath the bridge; no work would be done on the bridge itself. The proposed project would not require construction of new buildings or structures that would create an increase in demand for fire protection. The potential for a minor increase in demand for fire services may occur during construction; however, these minor public demands would not overburden the fire services within the project area. Therefore, a less than significant impact would occur.

b) Police protection?

**Less than significant impact.** Police services within the project area would continue to be provided by the San Joaquin County Sheriff Department. The proposed project would provide scour mitigation underneath the bridge; no work would be done on the bridge itself. These proposed improvements would not result in additional demand for police protection services. The potential for a minor increase in demand for police services may occur if a crime or accident occurs during construction; however, these minor public demands would not overburden the police services within the project area. Therefore, a less than significant impact would occur.

c) Schools?

**No impact.** The proposed scour mitigation underneath Harney Lane Bridge would not increase the number of residents in the project area. Therefore, no new school facilities would be necessary to serve the proposed project. No impact would occur.

d) Parks?

**No impact.** The proposed project would provide scour mitigation underneath Harney Lane Bridge and would not directly or indirectly induce population growth. The project would not result in the need for new or expanded park facilities. No impact would occur.

e) Other public facilities?

**No impact.** The project site is located in an area served by adequate police, fire, and emergency services. The proposed project would not increase the number of residents in the County and would therefore not cause an increase in demand for schools, parks, and other public facilities. The proposed project would not require the construction or expansion of new public facilities or would result in the degradation of those facilities. Therefore, no impact would occur.

## XVI. 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) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | ☐ | ☐ | ☐ | ☒ |

**Environmental Setting**

San Joaquin County has several regional park facilities that offer a wide variety of recreational opportunities. The County owns and operates nearly half of the regional parks' facilities, while the remaining parks are owned and operated by cities within the County. Local parks in San Joaquin County include neighborhood parks, community parks, and mini parks and are mostly owned and operated by cities, with the exception of two facilities that are located in the unincorporated County (County 2014).

**Impact Analysis**

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?

**No impact.** As discussed in Section 9.XIV, Population and Housing, the proposed project would not directly or indirectly induce population growth. The proposed project would provide scour mitigation underneath Harney Lane Bridge. Therefore, the project would not increase the use of existing parks and no impact would occur.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

**No impact.** The proposed project would not include the development of a new recreational facility and would not result in an expansion of an existing facility. Therefore, no impact would occur.

## XVII. 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) | Would the project 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? | ☐ | ☐ | ☒ | ☐ |

**Environmental Setting**

Roadways

San Joaquin County General Plan addresses the County's roadway system and assigns categories to roadways throughout the County (County 2014). Roadways are classified as freeway, expressway, principal arterial, minor arterial, collector, and local roads. San Joaquin County is served by three interstate routes, I-5, I-205, and I-580, and eight State routes: SR 4, SR 12, SR 26, SR 33, SR 88, SR 99, SR 120, and SR 132 (County 2014).

Transit

The San Joaquin Regional Transit District (RTD), the transit provider for San Joaquin County, provides public transit services in the Stockton metropolitan area, as well as intercity, interregional, and rural transit services Countywide. Additionally, the County is served by municipal transit service providers in Tracy, Lodi, and Manteca as well as regional transit service providers based out of neighboring Solano, Calaveras, and Sacramento Counties. Bus service in San Joaquin County is provided by the RTD and individual cities in the County (County 2014).

Rail Service

Amtrak operates the San Joaquin Route intercity rail service between Oakland or Sacramento and Bakersfield. Amtrak operates six daily round trips with two trains in each direction stopping at Lodi Station and Cabral Station in Stockton, and four trains stopping at the San Joaquin Street Station in Stockton. The trains also make stops in Lathrop and Tracy within San Joaquin County (County 2014).

Bicycle Transportation

Bikeway facilities in San Joaquin County include Class I bicycle paths, Class II bike lanes, and Class III shared lane/signed bike routes in the cities of Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton, and Tracy and the unincorporated areas of San Joaquin County. Existing bikeway facilities in unincorporated San Joaquin County are limited due to insufficient funding for the construction of major bikeway projects (County 2014).

**Impact Analysis**

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

**Less than significant impact.** The proposed project would include the design and installation of scour mitigation measures under the Harney Lane Bridge in conformance with FHWA and Caltrans guidelines. No work is proposed on the bridge structure itself. The majority of work is planned to be confined to Harney Lane ROW; however, forming of the cut-off wall would require construction crews to work outside the Harney Lane ROW. A TCE would be required for contractor access and staging. A temporary construction entrance would be located on the northern side of Harney Lane, west of Paddy Creek. Access to nearby residences and roadways would not be affected by the proposed project. One lane of traffic would remain open to the public at all times during construction. Once construction is complete, Harney Lane would continue to be used similar to pre-existing conditions. Therefore, the proposed project would not conflict with a program plan, ordinance, or policy addressing the circulation system. The impact would be less than significant.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

**Less than significant impact.** As noted in the Office of Planning and Research (OPR) Technical Advisory, transit and active transportation projects generally reduce VMT and therefore are presumed to cause a less-than-significant impact on transportation. Streamlining transit and active transportation projects aligns with each of the three statutory goals contained in SB 743 by reducing GHG emissions, increasing multimodal transportation networks, and facilitating mixed use development (OPR 2018).

The proposed project would provide scour mitigation underneath Harney Lane Bridge. No work is proposed on the bridge structure itself. Therefore, the project would not increase operational VMT through the project site. Construction-related traffic, including workers traveling to and from the project site and material and equipment deliveries, would temporarily increase in traffic on Harney Lane. However, the increase from construction traffic would be temporary in nature and would not result in long-term traffic impacts. Therefore, the impact would be less than significant.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

**Less than significant impact.** The proposed project would include the installation of open cell ACB around the piers and abutments. The majority of work is planned to be confined to Harney Lane ROW; however, forming of the cut-off wall would require construction crews to work outside the Harney Lane ROW. A TCE would be required for contractor access and staging. As work is proposed underneath Harney Lane Bridge and no change to Harney Lane is anticipated, the project would not substantially increase hazards due to a geometric design feature. The impact would be less than significant.

d) Result in inadequate emergency access?

**Less than significant impact.** To provide scour protection, the proposed project includes the installation of open cell ACB scour mitigation underneath Harney Lane Bridge. No permanent ROW is anticipated; however, a TCE would be required for contractor access and staging as well as for the work performed to form the cut-off wall. A temporary construction entrance would be located on the northern side of Harney Lane, west of Paddy Creek. It is anticipated that Harney Lane would remain open during construction. Once construction is complete, Harney Lane Bridge will continue to be used similar to pre-existing conditions. As no road closure is proposed, the proposed project would not result in inadequate emergency access. The impact would be less than significant.

## XVIII. Tribal 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 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), or | ☐ | ☒ | ☐ | ☐ |
| 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. | ☐ | ☒ | ☐ | ☐ |

**Environmental Setting**

CEQA, as amended in 2014 by AB 52 requires that the County provide notice to any California Native American tribes that have requested notice of projects subject to CEQA review and consult with tribes that responded to the notice within 30 days of receipt with a request for consultation. Section 21073 of the PRC defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes.

The purpose of consultation is to identify Tribal Cultural Resources (TCRs) that may be significantly impacted by the proposed project, and to allow the County to avoid or mitigate significant impacts prior to project approval and implementation. Section 21074(a) of the PRC defines TCRs for the purpose of CEQA as:

> *Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), 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; and/or,*

*(b) included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or,*

*(c) 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.*

Because the first two criteria also meet the definition of a Historical Resource under CEQA, a TCR may also require additional consideration as a Historical Resource. TCRs may or may not exhibit archaeological, cultural, or physical indicators and can only be identified by a culturally affiliated tribe, which has been determined under State law to be the subject matter expert for TCRs.

CEQA requires that the County initiate consultation with tribes at the commencement of the CEQA process to identify TCRs. Furthermore, because a significant effect on a TCR is considered a significant impact on the environment under CEQA, consultation is required to develop appropriate avoidance, impact minimization, and mitigation measures. Therefore, in accordance with the requirements summarized above, the County carried out tribal consultation for the project.

**Impact Analysis**

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?

**Less than significant impact with mitigation.** As noted above, the County is required to conduct government-to-government consultation with tribal governments that have asked for formal consultation under CEQA (formerly known as AB 52). Formal invitations to consult under CEQA were sent by the County on December 18, 2023 (included as Appendix I). The formal invitations were sent to four tribal representatives. The representatives included:

- Crystal Martinez, Ione Bank of Miwok Indians
- Randy Yonemura, Ione Bank of Miwok Indians
- Gene Whitehouse, United Auburn Indian Community of the Auburn Rancheria
- Antonio Ruiz, Jr, Wilton Rancheria

Each tribe was provided a brief description of the project and its location, the contact information for the County's authorized representative, and a notification that the tribe has 30 days to request

consultation. On January 29, 2024, the County received a response from Wilton Rancheria. Wilton Rancheria noted that the project site would be located within Wilton Rancheria's ancestral and culturally affiliated territory and provided the County with their Inadvertent Discovery Treatment Plan. The language in the Inadvertent Discovery Treatment Plan is included as Mitigation Measure TCR-1. With implementation of Mitigation Measure TCR-1, there would be a less than significant impact on TCRs.

**Mitigation Measure TCR-1: Inadvertent Discovery of TCRs**

If potential tribal cultural resources (TCRs), archaeological artifacts, other cultural resources, articulated, or disarticulated human remains are discovered during construction activities, all work shall cease within 100 feet of the find (based on the apparent distribution of the resources. Examples of potential cultural materials include but are not limited to midden soils, artifacts, chipped or worked stone, baked clay, shell, or bone.)

A Native American Representative from the federally recognized, Wilton Rancheria shall assess the significance of the find and make recommendations for further evaluation and treatment if necessary. Culturally appropriate treatment that preserves or restores the cultural qualities and integrity of a Tribal Cultural Resource may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, construction monitoring of any further activities by a tribal representative, and or returning the objects to a location within the project area where they will not be subject to future impacts.

Wilton Rancheria does not consider curation of TCRs to be appropriate or respectful and requests that materials not be permanently curated, unless specifically requested by the Tribe. If any human remains are discovered during construction activities, the County Coroner and the Native American Heritage Commission shall be contacted immediately. Upon determination by the County Coroner that the remains are Native American in origin, the Native American Heritage Commission shall assign the Most Likely Descendant(s) (MLD) who shall work the project proponents to define proper treatment and disposition.

After review of the find and consultation with the MLD, the authority to proceed shall be accompanied by the addition of development requirements which provide for protection and preservation of the site and/or additional measures necessary to address the sensitive and unique nature of the site. All treatment recommendations made by the tribe and other cultural resources specialists shall be documented in the confidential portion of the project record. Work in the area(s) of the cultural find shall only proceed after authorization from the lead agency in coordination with the Tribe.

## XIX. 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 which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☒ | ☐ |

**Environmental Setting**

The collection, treatment, and disposal of wastewater in San Joaquin County occurs in primarily two ways: community collection and treatment systems with discharge into various rivers, watercourses, and the Delta, or individual on-site treatment systems with discharge into the ground (County 2014).

Storm Drainage

Storm water runoff is that portion of rainfall not absorbed into the soil that leaves a site by surface flow. A storm drainage system designed to prevent flooding can consist of both natural and man-made structures used to collect, convey, and store rainwater during storms. The captured storm water is eventually discharged to a natural body of water via the terminal drainage (County 2014).

Water Supply

The Eastern San Joaquin County Groundwater Basin is the primary source of potable domestic water in San Joaquin County. The boundaries of the groundwater basin extend from the San Joaquin-Sacramento County line and Dry Creek in the north to the Stanislaus River in the south, and from the San Joaquin

River and eastern edge of the Delta to the west to approximately the San Joaquin County line to the east (DWR 2006).

Groundwater has been the preferred water source for domestic consumption because the cost of good quality, fresh groundwater is substantially less than the cost of importing treated surface water. Groundwater generally requires little treatment, whereas surface water must be filtered and treated for domestic use. In addition, it is much less costly to locate wells near the end users with short transmission lines to transport water a longer distance through larger, more capital-intensive systems. However, over drafting in the past few decades has caused a steady decline in groundwater levels in San Joaquin County, creating a zone of depression in western San Joaquin County areas and allowing the intrusion of highly saline Delta water into the groundwater basin. A number of proposed projects to provide areas with supplemental water would decrease groundwater pumping to safe yield levels (County 2014).

The second major source of water is supplied by major rivers such as the Mokelumne, Calaveras, Stanislaus, and San Joaquin Rivers, and reservoirs such as the Camanche, Pardee, Farmington, Woodward, New Hogan, and New Melones. Surface water is subject to a complex federal and State legal system establishing the rights of individuals and agencies to water flow through permits, licenses, court decrees, contracts, and federally prescribed flood control regulations (County 2014).

The third major source of water is the Delta, particularly in southwest San Joaquin County. Exporting fresh water from the Delta, however, has caused many problems. Reverse flows, declining fisheries, water quality problems, and levee erosion are among the many problems associated with water transfers from the Delta (County 2014).

Solid Waste

The San Joaquin County Solid Waste Division is the lead for the administration of solid wastes and the operation of related facilities. The San Joaquin County Environmental Health Department is involved in administering local and State regulations regarding waste management and has been appointed as the Local Enforcement Agency (LEA) in the unincorporated areas. San Joaquin County 2035 General Plan required the County to achieve a 75 percent diversion of landfilled waste by 2020 and requires a 90 percent diversion rate by 2035 (County 2014).

Impact Analysis

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?

**No impact.** No utility relocations are expected for the proposed project. All existing utilities (electric and telephone/cable) within the project area are aerial, and there is no indication of any underground utilities within the planned work area. If relocation is required, the relocation would be completed in cooperation with the utility service providers to ensure minimal disruption of service to utility customers and in accordance with the Franchise Agreements in place with the County and the utility providers. Therefore, as the project would not require or result in the relocation or construction of new utilities, no impact would occur.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

**No impact.** The proposed project is not a water demand project and would not require a water supply connection for installation or operation of scour mitigation. Therefore, no impact would occur.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

**No impact.** The proposed project would include the installation of open cell ACB around the piers and abutments. The project would not generate wastewater requiring treatment. Therefore, no impact would occur.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

**Less than significant impact.** The proposed project is not anticipated to generate solid waste in excess of available capacity. Vegetation removal may be necessary to install the ACB in the creek, and existing rip rap would be removed. Any excavated material is planned to be transported off-site for disposal including the North County Recycling Center & Sanitary Landfill approximately 3.5 miles east of the project site, the Foothill Sanitary Landfill approximately 13 miles to the southeast, or equivalently suitable landfill. A limited amount of landfill volume may be required for construction debris.

The San Joaquin County 2035 General Plan EIR notes that development facilitated by County General Plan implementation could require more landfill space than is available; however, the waste diversion policies outlined in the General Plan EIR were considered to conserve landfill volume (County 2014). As all project construction activities must comply with the County General Plan requirements for waste diversion, impacts associated with landfill capacity are anticipated to be less than significant.

e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

**Less than significant impact.** The proposed project would be expected to comply with applicable regulations regarding solid waste. As noted in question d), the project construction activities must comply with the County General Plan requirements for waste diversion. Therefore, the impact would be less than significant.

## XX. 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? | ☐ | ☐ | ☐ | ☒ |

**Environmental Setting**

Fire potential for wildlands is based on three major factors: fuels, terrain, and weather (County 2014). According to CAL FIRE Fire Hazard Severity Zone Viewer Map, the project site is located within an LRA and is not located on or near a very high fire hazard severity zone (CAL FIRE 2023).

**Impact Analysis**

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

**No impact.** The proposed project includes the installation of open cell ACB scour mitigation underneath Harney Lane Bridge. No work is proposed on the bridge structure itself. No permanent ROW is anticipated; however, a TCE would be required for contractor access and staging as well as for the work performed to form the cut-off wall. A temporary construction entrance would be located on the northern side of Harney Lane, west of Paddy Creek. It is anticipated that Harney Lane would remain open during construction. Once construction is complete, Harney Lane Bridge will continue to be used similar to pre-existing conditions. As no road closure is proposed, the proposed project would not interfere with an emergency response plan or emergency evacuation plan. Additionally, the project site is not located on or near VHFHSZ. Therefore, no impact would occur.

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?

**No impact.** The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point.

Terrain in the project site is generally flat with an elevation of approximately 77 feet amsl. As the proposed project would provide scour mitigation underneath Harney Lane Bridge, it is not anticipated that the proposed project would exacerbate wildfire risks. Additionally, the project site is not located on or near VHFHSZ. Therefore, no impact would occur.

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?

**No impact.** The proposed project would provide scour mitigation underneath Harney Lane Bridge. No utility relocations are expected for the proposed project. All existing utilities (electric and telephone/cable) within the project area are aerial. Additionally, there is no indication of any underground utilities within the planned work area. Therefore, the project would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk or result in impacts to the environment. Additionally, the project site is not located on or near VHFHSZ. Therefore, no impact would occur.

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.** Due to the generally flat topography and lack of steep slopes on the project site, landslides are unlikely to occur in the project area or in the immediate vicinity. Additionally, project work is anticipated to occur when Paddy Creek is dry; temporary creek diversion and dewatering are not anticipated. Earth moving, and other construction related activities could cause erosion and runoff of topsoil into the drainage facilities during construction, which could temporarily affect water quality of downstream surface waters. However, temporary sediment and erosion control BMPs would be implemented to minimize erosion on and off-site. As outlined in the NES(MI), included as Appendix C to this IS/MND, potential erosion materials consisting of fiber, seed, commercial fertilizer, and/or water would be applied to embankment slopes, excavation slopes, etc. Other BMPs would include revegetating the work zone and establishing temporary water bars to reduce the potential for sheet erosion.

Therefore, existing site conditions would not be altered in any way that could expose people or structures to significant risks. Additionally, the project site is not located on or near VHFHSZ. Therefore, no impact would occur.

## XXI. 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 significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)? | ☐ | ☒ | ☐ | ☐ |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ☒ | ☐ | ☐ |

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?

**Less than significant impact with mitigation.** The preceding analysis indicates that the proposed project has the potential to result in adverse impacts related to biological resources (Section 9.IV), cultural resources (Section 9.V), geology and soils (Section 9.VII), hazards and hazardous materials (Section 9.IX), hydrology and water quality (Section 9.X), and tribal cultural resources (Section 9.XVIII). Refer to the corresponding sections of this IS/MND for discussion of the proposed project's potential impacts on these environmental issue areas. With implementation of the mitigation measures identified in those sections, impacts would be reduced to a less than significant level. No significant or potentially significant impacts would remain.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?

**Less than significant impact with mitigation.** As described in the evaluations of potential impacts in the preceding sections of this IS/MND, all potentially significant impacts of the proposed project would be

reduced to a level of less than significant with the proposed mitigation measures incorporated. With incorporation of the proposed mitigation contained in this IS/MND, the project's contribution to cumulative impacts would be less than significant.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

**Less than significant impact with mitigation.** The proposed project would not directly or indirectly result in substantial adverse effects on human beings. With the proposed mitigation in this IS/MND incorporated, the proposed project would result in less than significant impacts on human beings.

# 10.0 MITIGATION MONITORING AND REPORTING PROGRAM

A Mitigation Monitoring and Reporting Program (MMRP) has been prepared by the County per Section 15097 of the CEQA Guidelines and is presented in Appendix J.

# 11.0 PREPARERS

San Joaquin County

Marilissa Loera, Associate Transportation Planner
Jeffery Verstl, Project Manager
Jeffrey Levers
Michael Chung

HELIX Environmental Planning, Inc.

Lesley Owning, Project Manager
Julia Pano, Environmental Planner
Victor Ortiz, Senior Air Quality Specialist
Patrick Martin, Biologist
Lika Loechler, GIS Specialist

Cogstone Resource Management

Molly Valasik, MA, RPA, Principal Archaeologist
Holly Hickman, BA, Archaeologist

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