Public Draft

FEATHER RIVER BOULEVARD PIPELINE PROJECT

Initial Study/Mitigated Negative Declaration

Prepared for
Linda County Water District

July 2021

ESA

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NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION FOR THE LINDA COUNTY WATER DISTRICT FEATHER RIVER BOULEVARD PIPELINE PROJECT

(Pursuant to CEQA Section 21092 and CEQA Guidelines Section 15072)

In accordance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines, the Linda County Water District (LCWD), has prepared an Initial Study and proposed Mitigated Negative Declaration (IS/MND) for the Feather River Boulevard Pipeline Project (the proposed Project). Based on the results of the Initial Study, LCWD determined that construction and operation of proposed Project would not have significant impacts on the environment. All potentially significant impacts identified in the Initial Study would be reduced to less than significant levels with implementation of appropriate mitigation measures.

Project Description:

The proposed Project is comprised of construction and operation of a new 10-inch diameter, ductile iron water pipeline proposed for placement in the roadway of Feather River Boulevard and use of a staging area on a vacant parcel (on Alicia Avenue north of Feather River Boulevard) during construction. The pipeline is proposed to extend 2,700 linear feet, placed within the Yuba County rights-of-way and connect to existing LCWD infrastructure at North Beale Road and Alicia Avenue. The proposed Project includes installation of (at minimum) four wet barrel fire hydrants. All work will conform with both LCWD and Yuba County standards.

Public Comment Period: July 7, 2021 to August 5, 2021.

NOTICE IS HEREBY GIVEN that the LCWD Board of Directors intends to adopt a CEQA Mitigated Negative Declaration for the proposed Project on August 9, 2021 at its regular meeting of the LCWD Board of Directors, in accordance with the CEQA Guidelines.

The public, all interested agencies and stakeholders are invited to review the IS/MND and submit written comments, pursuant to CEQA. The IS/MND may be accessed through the LCWD website: https://www.lindawater.com/

Written comments are due by 5 PM on August 5, 2021 and may be sent via USPS mail to:

Linda County Water District
Attn. Javier Rios, District Engineer
1280 Scales Avenue
Marysville, CA 95901

Or via email to: JRios@lindawater.com
Please reference Feather River Blvd. Pipeline Project comments in the subject line.

TABLE OF CONTENTS

Feather River Boulevard Pipeline Project
Initial Study/Mitigated Negative Declaration

Page

Appendices

List of Figures

List of Tables

CHAPTER 1
Project Description

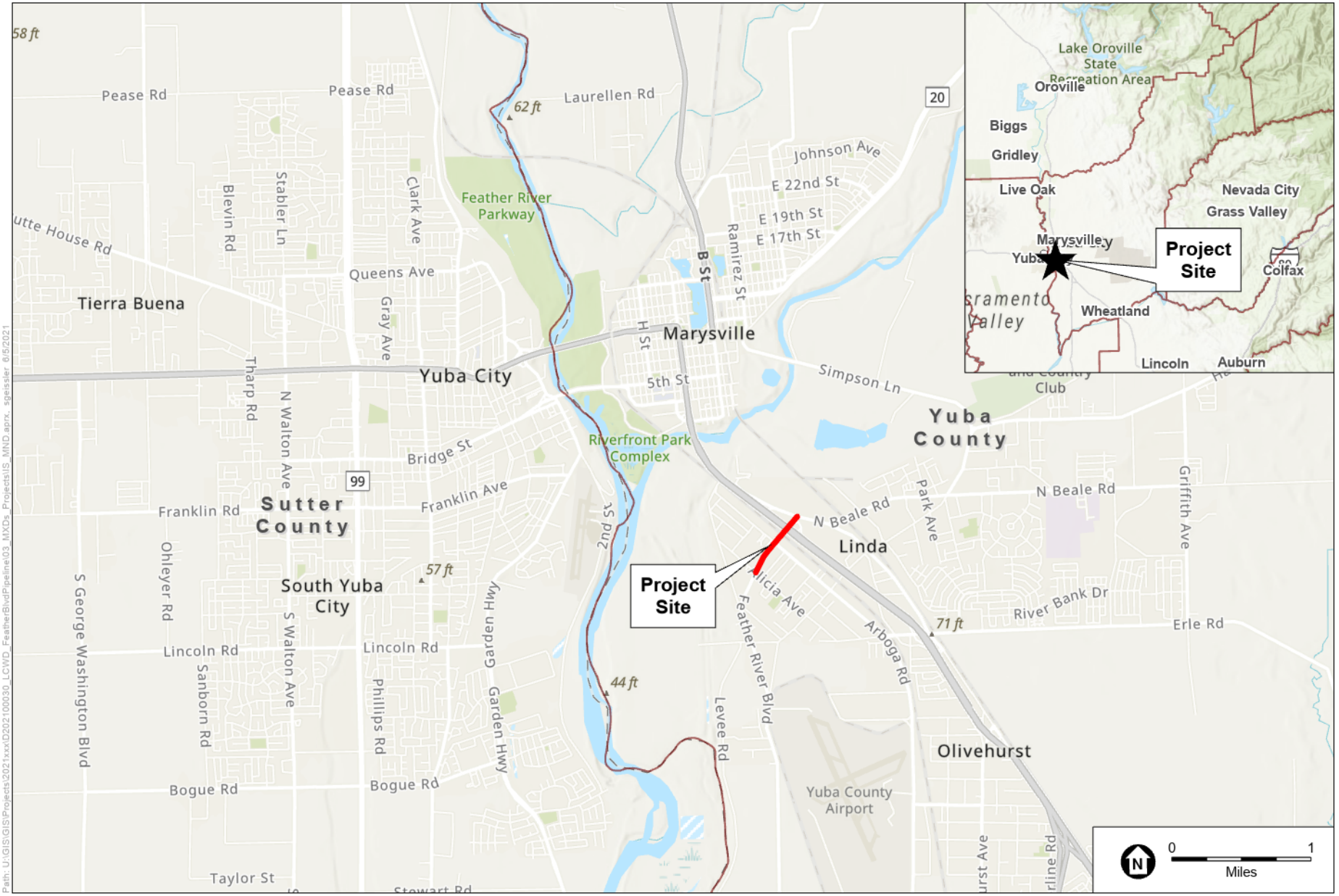
This chapter summarizes relevant background and describes the Feather River Boulevard Pipeline Project (proposed Project), including location, purpose and need, Project components, anticipated operations, and the construction process.

1.1 Introduction

The Linda County Water District (LCWD), founded as a California Special District, operates under the State Water Code as a water purveyor providing water supply services to the unincorporated community of Linda in Western Yuba County. LCWD is proposing to construct and operate a new potable water pipeline in its service area in Yuba County. LCWD is the Project proponent and Lead Agency for the California Environmental Quality Act (CEQA) environmental review. All proposed construction would occur within the Yuba County right of way (ROW) within Feather River Boulevard.

1.2 Project Location

The proposed Project would be located in the community of West Linda, south of the City of Marysville in unincorporated Yuba County (**Figure 1, Regional Map**). The community includes single family residential neighborhoods in the vicinity. Neighborhood commercial properties along Feather River Boulevard include small markets, gas stations, auto repair shops and other commercial business. A commercial business district with restaurants and fast food businesses is located directly north of the proposed Project's pipeline northern point of connection. The proposed Project pipeline would be within the roadway of Feather River Boulevard, which passes under the State Route (SR) 70 and the Union Pacific Railroad (UPRR) overpasses (**Figure 2, Project Overview**).



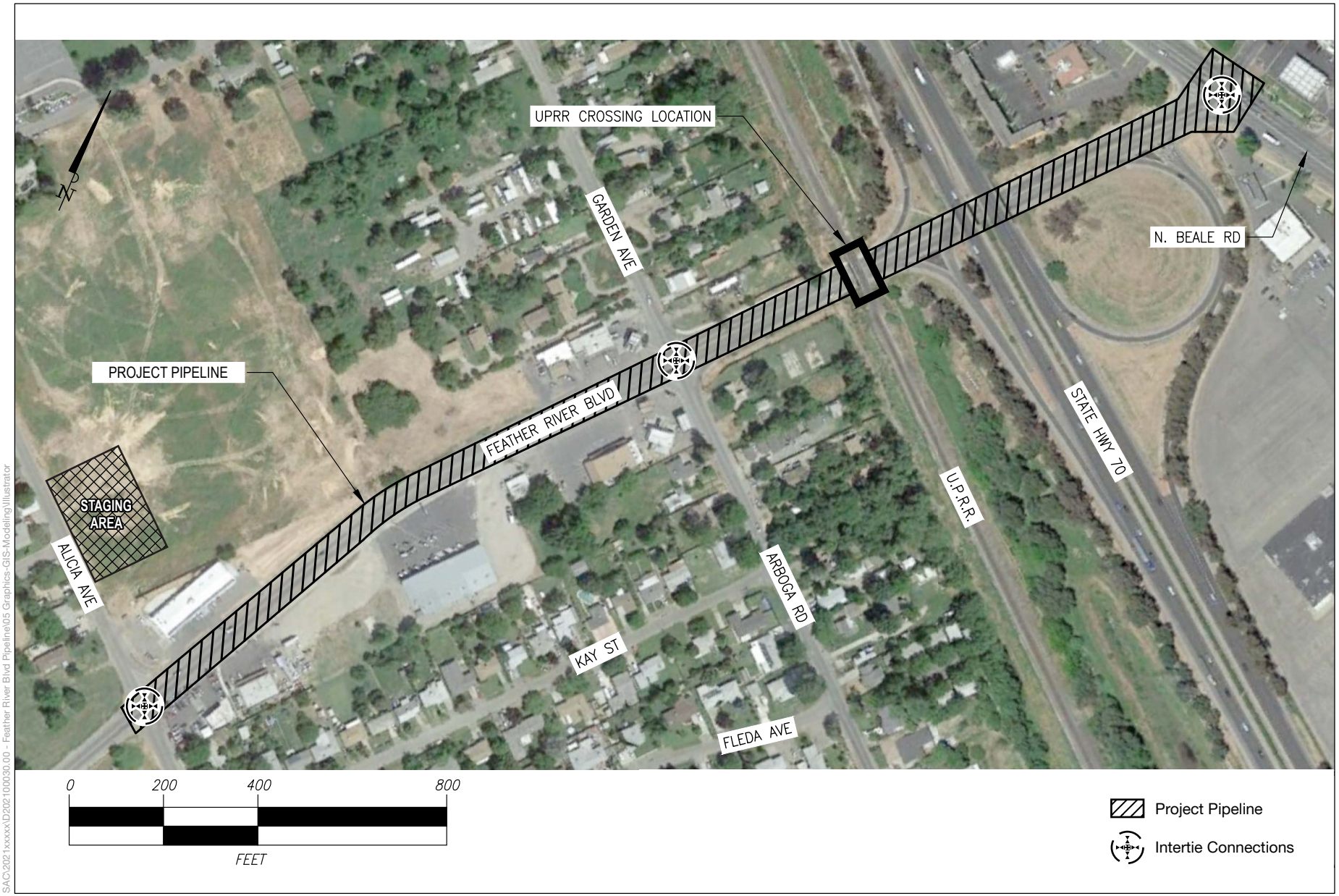
SOURCE: ESRI; National Hydrography Dataset; DWR

LCWD Feather River Blvd Pipeline Project

Figure 1

Regional Map

ESA



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SOURCE: Coleman Engineering, 2021

Feather River Blvd Pipeline

Figure 2
Project Overview

ESA

1.3 Background

The LCWD provides potable water and wastewater treatment to the community of Linda. Water supplies originate from groundwater pumped from six wells that are strategically located throughout LCWD's service area. LCWD water treatment process consists of aeration, filtration, and chlorination (LCWD, 2019). LCWD operates as the sole water retailer and supplier for the community of Linda. LCWD boundaries are roughly: south of the Yuba River and east of the Feather River, bounded by Erle Road to the south and Griffith Avenue to the east, covering a service area of approximately 8 square miles.

1.4 Project Purpose and Need

The purpose of the proposed Project is to provide for a more reliable water supply to the surrounding area by creating another connection to the northern half of LCWD service area that is supplied by one of its larger production wells. The proposed Project's new water pipeline is needed to improve the LCWD's ability to meet fire flow standards in the surrounding area, improve system hydraulics, and provide water service for planned residential and commercial construction in the area. The proposed Project's new pipeline would create a more resilient fire protection supply for existing and new infrastructure on the west side of the District's service area.

1.5 Planning Context

As proposed, the Project would primarily serve the Cedar Lane Permanent Supportive Housing,[1] a recently-approved, planned affordable housing complex to be located on the north side of Feather River Boulevard, east of Alicia Avenue. Staging for construction would occur upon the parcel approved for development as part of the Cedar Lane project.

Yuba County recently updated its 2021-2029 Housing Element, which is an eight-year plan to address identified County housing needs through strategic goals, policies, and programs. Comments were raised during the public hearing for the Public Draft Housing Element concerning whether the communities of Linda, Olivehurst, and Edgewater should be prioritized for higher density zoning and infill housing and if the County has the resources, i.e. water, roads, and other infrastructure to accommodate new units required by the regional housing needs assessment (Yuba County, 2021). LCWD, as a public utility that provides water and wastewater services has no authority or jurisdiction for housing approval; however, as mentioned above, the proposed Project would accommodate planned development and approved housing consistent with the Yuba County 2021-2029 Housing Element and its adopted General Plan.

1.6 Proposed Project

The proposed Project is comprised of construction, operation, and maintenance of a new potable water pipeline proposed for placement within the Yuba County right-of-way in the roadway of Feather River Boulevard. The proposed new 10-inch diameter ductile iron pipeline would connect to existing LCWD infrastructure from an existing 8-inch diameter line on North Beale Road and

[1] Recently approved by the Yuba County Community Development and Services Agency: May, 2020.

extend to the south approximately 2,700 linear feet (or 0.5 miles), with isolation valves and connections to an existing 6-inch ductile line on Garden Avenue and an existing 8-inch ductile line on Alicia Avenue (Figure 2). The proposed Project would also include (at minimum) four wet barrel fire hydrants, consistent with Yuba County Fire Department requirements. All work would conform with both LCWD's and Yuba County's latest improvement standards.

1.7 Construction

The following section summarizes the construction process, identifies construction access, and conveys the anticipated construction schedule for the proposed Project. The area of direct effect from proposed Project construction is limited to the area of excavation within Feather River Boulevard and the proposed staging and stockpiling area at the Alicia Avenue site (north of Feather River Boulevard) where the backfill would be temporarily placed. The staging area would be approximately 100-foot by 120-foot or 12,000 square feet (SF).

The Project proposes to construct and install 2,700 linear feet of new pipeline in Feather River Blvd. Ground disturbing activities including the staging area would consist of less than one-half acre. Therefore, coverage under the General Permit for Stormwater Discharges Associated with Construction Activity (commonly referred to as the Construction General Permit) would not be required. However, as part of the Yuba County review process for the encroachment permit, an erosion and sediment control plan would be developed and implemented by the contractor selected to construct the proposed Project. Construction would occur in a manner consistent with LCWD's and Yuba County's latest improvement standards.

1.7.1 Schedule

Construction is anticipated to occur over a duration of no more than 45 days between August and mid-October. Construction is anticipated to take place between the hours of 7 a.m. and 5 p.m., five days per week. Work is not expected to take place at night or on the weekends, though weekend work may be necessary, to finish construction prior to winter rainy season.

1.7.2 Construction Sequence

The general sequence for construction would consist of the following phases: mobilization; trenching, excavation and backfill.

- **Mobilization and BMPs:** The construction contractor would mobilize to the proposed Project site and establish a staging and stockpile area (shown on Figure 2). The proposed Project staging location would be accessed from Alicia Avenue. Construction equipment would be transported to the site, and necessary materials, including excavation spoils would be delivered to the stockpile area. Standard haul trucks would be used for these deliveries. The contractor would establish and maintain best management practices (BMPs) for erosion control to minimize runoff into the stormdrain and surrounding properties. These measures would generally consist of gravel bags and stormwater control devices at stormdrains, site good housekeeping measures, covering stockpiled soil, implementing devices to reduce track-out of soil or mud from the staging site, and/or as specified by the proposed Project's erosion and sediment control plan (subject to Yuba County review and approval). These BMPs would

help control erosion, reduce siltation, and prevent contamination of stormwater infrastructure. Mobilization including BMP installation is expected to take up to one week (4-5 workdays).

- **Trenching, Excavation, and Backfill:** This phase would consist of a pavement road cut, trenching, excavation and backfill. Trenching would be 3 feet wide to a depth of approximately 4.5 feet below the road surface. This work is expected to take up to six weeks (30 workdays) to complete.

- **Testing:** The new pipeline will be tested to ensure the integrity of the pipeline and functionality of the isolation valves. One week (5 workdays) is anticipated for new pipeline testing.

- **Road Restoration and Demobilization:** Following the work described above, the affected roadway would be restored to existing conditions. Construction haul trucks would be used to remove any surplus materials from the site. Trash or debris would be removed and county roads and affected infrastructure restored to pre-project conditions. All road, sidewalk, curb, and gutter disturbed would be replaced and installed per Yuba County Standards. This is expected to take up to one-week (or up to 6 workdays).

1.7.3 Staging

The planned construction staging/stockpiling area is located on a site that was recently approved for the development of low-income housing that the proposed Project would serve (refer to Figure 2). This staging area would be temporarily used for stockpiling spoils associated with trench excavation, and for storing Project equipment and materials. The staging area will require temporary security fencing and lighting for the duration of the proposed construction activities including mobilization and de-mobilization. Following construction, the temporary fencing would be removed and the site would be cleared of materials and equipment and returned to existing conditions, consistent with Yuba County standards and requirements.

1.7.4 Traffic Management and Affected Roadways

Construction equipment and workers would access the site from SR 70 at North Beale Road. During construction, the southbound SR 70 Feather River Blvd. off-ramp would be temporarily closed; however, the on-ramp connecting Feather River Blvd. to southbound SR 70 would remain open. The proposed Project would require a single lane closure within Feather River Boulevard for majority of proposed Project construction and a few days of work in a busy intersection. As two lanes are available along Feather River Boulevard in each direction, traffic would continue to flow during the lane closures. As part of the Yuba County encroachment permit application process, the selected contractor will be required to develop a traffic control plan, subject to Yuba County review and approval. The traffic control plan would be required to coordinate with emergency response agencies, allow for movement through and around the proposed Project site, provide and clearly mark appropriate detours, and control potential circulation conflicts, ensuring safe travel for all modes affected by and during proposed construction activities.

1.8 Anticipated Permits, Plans, and Regulatory Approvals

The proposed Project is anticipated to require the following regulatory permits and other regulatory approvals.

- **Yuba County**: Encroachment Permit for construction of utilities within the County ROW;
  - Yuba County Traffic Control Plan
  - Yuba County Erosion and Sediment Control Plan
- **California Department of Transportation (CalTrans):** Encroachment permit for construction activities at the intersection of SR 70 and temporary closure for an off-ramp of a State Highway.
- **Union Pacific Railroad**: Notification and Engineering Review for Pipeline Crossing/ Encroachment.

1.9 References

Linda County Water District (LCWD). 2019. 2019 Water Quality Consumer Confidence Report Public Water System 58-10002. Available: https://www.lindawater.com/documents/1248/2019_Annual_CCR.pdf.

Yuba County. 2021. County of Yuba 2021-2029 Public Draft Housing Element. https://www.yuba.org/departments/community_development/planning_department/housing_element_update.php. March 2021.

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CHAPTER 2
Environmental Checklist/Initial Study

1. Project Title:	LCWD Feather River Blvd. Pipeline Project
2. Lead Agency Name and Address:	Linda County Water District 1280 Scales Ave. Marysville, CA 95901
3. Contact Person and Phone Number:	Javier Rios, District Engineer (530) 473-2043
4. Project Location:	Feather River Blvd. (between N. Beale Rd. and Alicia Ave.), Marysville, CA
5. Project Sponsor's Name and Address:	Linda County Water District
6. General Plan Designation(s):	Commercial Mixed Use and Valley Neighborhood.
7. Zoning:	CMX, NMX (Commercial and Neighborhood Mixed Use)

8. Description of Project:

The proposed Project is comprised of construction and operation of a new 10-inch diameter, ductile iron water pipeline proposed for placement in the roadway of Feather River Boulevard and use of a staging area on a vacant parcel (on Alicia Avenue north of Feather River Boulevard) during construction. The pipeline would extend 2,700 linear feet (LF) connect to existing Linda County Water District (LCWD) infrastructure, and be placed within the Yuba County right-of-way. The proposed Project would also include installation of (at minimum) 4 wet barrel fire hydrants. All work would conform with both the LCWD's and Yuba County's latest improvement standards.

9. Surrounding Land Uses and Setting.

The proposed Project would be located in Linda, an unincorporated community in Yuba County south of Marysville. The community includes single family residential areas in the vicinity. Neighborhood commercial properties along Feather River Boulevard include small markets, gas stations, auto repair shops and other commercial business. A commercial district with restaurants and fast food businesses is located directly north of the proposed Project's pipeline northern point of connection. The pipeline would be within the roadway of Feather River Boulevard, which passes under State Route (SR)70 and the Union Pacific Railroad overpasses. Access to the site would occur through SR70 and North Beale Road.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

The proposed Project is funded through the California Department of Water Resources (DWR) Yuba Integrated Regional Water Management Plan (IRWMP) Proposition 1 Implementation Grant Program for water supply and water management projects. Encroachment and traffic control permits from Yuba County would be required. An encroachment permit from CalTrans for work in the State Right-of Way (ROW) will be required. An encroachment/ crossing permit from Union Pacific Railroad (UPRR) would be needed for required work at the undercrossing in the railroad ROW.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code 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.?

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

Consultation pursuant to PRC Section 21080.3.1 was completed by the Lead Agency, LCWD. Outreach occurred through contact letters mailed to seven California Native American tribes on April 28, 2021. UAIC provided a response during the 30-day consultation period, which provided input on mitigation measures for tribal cultural resources.

2.1 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" as indicated by the checklist on the following pages.

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial study:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

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

Signature _____ Date 7/1/21

Signature _____ Date _____

2.2 Environmental Checklist

2.2.1 Aesthetics

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

Discussion

a) ***Less than Significant Impact.*** The proposed Project site is in a residential and commercial district in the community of West Linda, south of the city of Marysville. Prominent geographic features include Beale Air Force Base and the Sierra Nevada foothills to the east and the Sutter Buttes approximately 12 miles northwest of the site. Construction of the proposed Project would involve the presence of equipment and materials in a public county roadway of Feather River Boulevard and use of a vacant site along Alicia Avenue as a staging area. The equipment required for construction would present temporary visual impacts. However, such impacts would not be substantial, nor persist beyond the 45-day duration of construction.

The major proposed Project component (the pipeline) would be a subsurface installation entirely within an existing roadway and would not result in any major visible changes compared to existing conditions. At the conclusion of construction, the pavement along Feather River Boulevard would be restored consistent with Yuba County Standards.

The proposed Project's above ground features consist of connections to existing potable water infrastructure and approximately 4 new fire hydrants, which would not present features that would be visually incompatible with the surrounding community. There would be no long-term adverse effects on scenic vistas attributable to the proposed Project.

Impacts associated with construction would be temporary and less than significant.

b) ***No Impact.*** The proposed Project is not located in the vicinity of a state designated or eligible scenic highway (Caltrans, 2019). The closest scenic highway is more than

20 miles east of the site near Grass Valley. The proposed Project would not damage scenic resources and there would be no impact pertaining to this criterion.

c) ***No Impact.*** As described in question a), the proposed Project would not include elements that would be visually incompatible with the existing surrounding community. The proposed Project's water pipeline would be located below the road surface, and would therefore not have any effect on public views.

d) ***No Impact.*** The proposed Project would include temporary security lighting at the staging area; however, no permanent lighting is proposed to be installed as part of the Project. Therefore, there would be no ongoing light or glare impacts.

References

California Department of Transportation (Caltrans). 2019. California Scenic Highway Program. https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways.

2.2.2 Agriculture and Forestry Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
II. AGRICULTURE AND FORESTRY RESOURCES — In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. 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?	☐	☐	☐	☒

Discussion

a), e) ***No Impact.*** The proposed Project would be constructed and located entirely upon lands classified under the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) as "urban and built up land" (FMMP, 2018). As all proposed Project elements would be constructed within an existing paved roadway, no conversion of farmland is required or proposed as part of the Project. There would be no impact with respect to farmland conversion.

b) ***No Impact.*** Yuba County does not participate in the California Land Conservation Act of 1965 or Williamson Act program, so no parcels in Yuba County are subject to the Williamson Act (Yuba County, 2011). Feather River Boulevard where the proposed Project trenching and excavation would take place is a paved roadway, not subject to a Williamson Act agreement and not located upon prime farmland. Therefore, there would be no impact under this criterion.

c), d) ***No Impact.*** The proposed Project would not be upon forest or timberland; nor would tree removal or involve any change to existing zoning occur as part of the proposed Project. All construction would take occur within the existing paved Feather River Boulevard

which would not conflict with timberland production. Therefore, there would be no impact under these criteria.

References

California Department of Conservation Farmland Mapping and Monitoring Program (FMMP). 2018. Important Farmland Finder. Web-based GIS tool. Available: https://maps.conservation.ca.gov/DLRP/CIFF/.

Yuba County. 2011. General Plan 2030 Environmental Impact Report. https://www.yuba.org/departments/community_development/planning_department/general_plan.php.

2.2.3 Air Quality

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
III. AIR QUALITY — 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?	☐	☐	☒	☐

Environmental Setting

The proposed Project would be located in the community of West Linda, south of the City of Marysville in unincorporated Yuba County. Yuba County is located within the Sacramento Valley Air Basin (SVAB) which is under the jurisdiction of the Feather River Air Quality Management District (FRAQMD). The topographic features giving shape to the SVAB are the Coast Range to the west, the Sierra Nevada mountains to the east, and the Cascade Range to the north. These mountain ranges both channel winds through the SVAB, and also act as barriers that inhibit the dispersion of pollutant emissions. The SVAB, including Yuba County, is characterized by a Mediterranean climate that includes mild, rainy winter weather from November through March and warm to hot, dry weather from May to September. During the summer, the Sacramento Valley has an average high temperature of 92 degrees Fahrenheit (ºF) and an average low temperature of 52ºF. In the winter, the average high temperature is 58ºF, and the average low is 40ºF. The average annual rainfall is approximately 20 inches.

Criteria Pollutants

Criteria air pollutants are a group of six common air pollutants for which the U.S. Environmental Protection Agency (U.S. EPA) has set national ambient air quality standards (NAAQS), including ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM) 10 microns or less in diameter (PM_{10}) and 2.5 microns or less in diameter ($PM_{2.5}$), and lead. Most of the criteria pollutants are emitted as primary pollutants. Ground level ozone, however, is a secondary pollutant that is formed in the atmosphere by chemical reactions between nitrogen oxides (NO_x) and reactive organic gases (ROG) in sunlight. In addition to the criteria air pollutants identified by the EPA, California adds four state criteria air pollutants (visibility reducing particulates, sulfates, hydrogen sulfide, and vinyl chloride) to the California ambient air quality standards (CAAQS). Yuba County is designated as a non-attainment area with respect to the state ozone and PM_{10} standards. The area is designated as unclassified or an attainment area for all other state and federal standards.

Toxic Air Contaminants

Toxic air contaminants (TACs) are state-designated, airborne substances that are capable of causing short-term (acute) and long-term (chronic or carcinogenic, i.e., cancer-causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations, as well as heavy-duty trucks and heavy equipment. The current California list of TACs includes nearly 200 compounds, including diesel particulate matter (DPM) emissions from diesel-fueled engines (CARB, 2011).

Sensitive Receptors

Some receptors are considered more sensitive to air pollutants than others. The reasons for greater than average sensitivity include age, pre-existing health problems, proximity to emissions sources, and duration of exposure to air pollutants. Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality-related health problems than the general public. Children are particularly sensitive to air pollution due to their rapid breathing rate, smaller body size, and early developmental stage of their respiratory system. Residential areas are considered sensitive to poor air quality because people usually stay at home for extended periods of time, with greater associated exposure to ambient air quality. Recreational uses are also considered sensitive because vigorous exercise associated with recreation places a high demand on the human respiratory system and increases exposure to ambient air quality conditions. Sensitive receptors in the vicinity of the proposed Project include single-family residences.

Discussion

The following analysis of air quality impacts considers the potential impacts related to emissions of nonattainment pollutants, their precursors, and TACs on the surrounding community. Therefore, ozone precursors (ROG and NO_x), PM_{10}, and diesel particulate matter (DPM), are the focus of this assessment.

a) ***Less than Significant Impact.*** The federal Clean Air Act (CAA) and the California CAA require any air district that has been designated as a nonattainment area relative to the NAAQS and the CAAQS for ozone, CO, SO_2, or NO_2 to prepare and submit a plan for attaining and maintaining the standards.

Together, the air pollution control districts and air quality management districts for the counties in the northern Sacramento Valley form the Northern Sacramento Valley Planning Area (NSVPA). The NSVPA districts are designated as nonattainment for the State ozone standard and have jointly prepared an air quality attainment plan, updated every three years. The 2018 update to the NSVPA Air Quality Attainment Plan assesses the progress made in implementing the previous triennial update and proposes modifications to the strategies necessary to attain the CAAQS as soon as possible (SVAQEEP, 2018).

The FRAQMD has not published guidance pertaining to assessing a project or plan relative to the applicable Clean Air Plan, the NSVPA Air Quality Attainment Plan. However, one of the measures of consistency with clean-air planning is growth inducement and an increase in regional traffic patterns. The proposed Project would not result in growth-inducing effects or in long-term increases in population or vehicle miles traveled that would lead to increased emission levels. Therefore, the proposed Project would not conflict with or obstruct implementation of the 2018 NSVPA Air Quality Attainment Plan. This impact would be less than significant with no mitigation required.

b) ***Less than Significant Impact.*** **Construction:** Construction of the proposed Project would generate emissions of criteria air pollutants from the use of heavy-duty construction equipment, haul trips, and construction worker vehicle trips. Emissions of criteria pollutants that would result from construction of the proposed Project were estimated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. Project-specific information was used for modeling when possible, and where Project-specific information was unavailable, CalEEMod defaults were used. CalEEMod assumptions and detailed modeling outputs are included in **Appendix A**.

Pursuant to FRAQMD classification, the proposed Project is a Type 2 project because the operational phase of the proposed Project would not generate emissions. The FRAQMD guidance states that if a Type 2 project exceeds "the thresholds of 25 lbs/day of NO_x or ROG, or daily emissions of 80 lbs/day of PM_{10}, the project must apply Best Available Mitigation Measures for the Construction Phase… and include other mitigation to reduce the impact below the significant thresholds" (FRAQMD, 2010). As shown in **Table AQ-1**, proposed Project construction would not generate emissions of criteria air pollutants that would exceed the FRAQMD thresholds of significance. Therefore, the proposed Project would not result in a cumulatively considerable net increase in any of the criteria pollutants for which the FRAQMD is in non-attainment and the impact would be less than significant with no mitigation required**.**

TABLE AQ-1
UNMITIGATED PROJECT CONSTRUCTION EMISSIONS (LBS/DAY)

	NOx	ROG	PM10
Construction Emissions	8.87	0.83	1.29
FRAQMD Thresholds	25	25	80
Exceeds Threshold?	No	No	No

SOURCES: Appendix A. FRAQMD, 2010.

Operations: Following construction, the affected roadway would be restored to baseline pre-construction conditions and operation of the proposed Project would not generate emissions. Therefore, operation of the proposed Project would not result in emissions of any criteria air pollutants that would cause a new or contribute to an existing ambient air quality violation, and there would be no impact.

c) ***Less than Significant Impact.*** **Construction:** During construction, the proposed Project would generate TAC emissions in the form of DPM from the use of heavy-duty, diesel-fueled construction equipment. However, construction activity would be temporary, occurring over a 45-day period. In addition, construction activity would be linear along the length of the pipeline and would not occur in one place for the duration of proposed Project construction; therefore, no one receptor would be exposed to DPM emissions for the full 45-day construction period. Thus, health risk that would result from construction-related DPM emissions would be minimal and would be considered less than significant with no mitigation required**.**

Operations. As discussed above, following construction, operation of the proposed Project would not result in emissions and would not cause an increase in health risk. Therefore, there would be no impact from operation.

d) ***Less than Significant Impact.*** The FRAQMD has identified various types of facilities that are known sources of odors including wastewater treatment plants, sanitary landfills, painting/coating operations, food processing facilities, and green waste and recycling operations (FRAQMD, 2010). The proposed Project would not include operation of any of the types of odor-generating facilities identified by the FRAQMD; therefore, the proposed Project would not be anticipated to generate odors that would affect a substantial number of people and the impact would be less than significant with no mitigation required**.**

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2.2.4 Biological Resources

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
IV.	**BIOLOGICAL RESOURCES —** 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 Game 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 Game or U.S. 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?	☐	☒	☐	☐

Environmental Setting

The proposed Project site is comprised of the pipeline alignment within an existing paved roadway, Feather River Boulevard (from its intersection with Alicia Avenue to the intersection with North Beale Road) and the proposed construction staging/stockpiling area east of Alicia Avenue, between Cedar Lane and Feather River Boulevard. This staging area would be upon property recently approved for development of low-income housing that the proposed Project would serve. The proposed staging area is vacant land classified as annual grassland. Feather River is located approximately one mile northwest of the Project site.

This section is based on information collected from the following sources: a review of aerial photographs of the proposed Project site (Google Earth, 2021); a query of the California Natural Diversity Database (CNDDB) for species occurrence records within a five-mile radius of the proposed Project; a review of California Native Plant Society (CNPS) special-status plant lists; and a U.S. Fish and Wildlife Service (USFWS) list of endangered and threatened species that may occur or could be affected by the proposed Project. The proposed Project site is an existing paved roadway with no vegetation community.

Annual Grassland

In California, annual grassland generally occurs on flat plains to gently rolling foothills throughout the Central Valley, in the coastal mountain ranges to Mendocino County, and in scattered locations in the south portion of the state. Dominant species in the vicinity of the staging area include introduced grasses such as, bromes (*Bromus* spp.), soft chess (*Bromus hordeaceus*), and wild oat (*Avena fatua*). Common forbs associated with annual grassland include clover (*Medicago* sp.), filaree (*Erodium* sp.), and turkey mullein (*Croton setigerus*) (California Department of Fish and Wildlife [CDFW] 2021b). The site proposed for construction staging was recently cleared of all vegetation (personal comm. LCWD, 2021). No annual grassland habitat is present in the proposed Project area.

Critical Habitat

Critical habitat is designated by the USFWS under the Federal Endangered Species Act (FESA). Critical habitat refers to a specific geographic area(s) that contains features essential for conservation of a threatened or endangered species and that may require special management and protection. This designation may include an area that is not currently occupied by the species but that will be needed for recovery.

No critical habitat is identified within the proposed Project site or is habitat expected to be impacted by implementation of the proposed Project.

Sensitive Natural Communities

Sensitive habitats include: a) areas of special concern to resource agencies, b) areas protected under the California Environmental Quality Act (CEQA), c) areas designated as sensitive natural communities by CDFW, and d) areas protected under local regulations and policies.

The CNDDB identified four sensitive natural communities, coastal and valley freshwater marsh, Great Valley cottonwood riparian forest, Great Valley mixed riparian forest, and northern hardpan vernal pool, as potentially occurring within the general vicinity of the proposed Project. However, these sensitive communities do not occur at the proposed Project site or within the immediate surrounding area.

Wetlands and Jurisdictional Waters

The definition and regulatory framework of wetlands and jurisdictional waters are described in the ‘Clean Water Act’ (CWA) portion of this chapter (see below).

There are no aquatic features that may be considered jurisdictional by the U.S. Army Corps of Engineers (USACE), who administers CWA regulations, within the proposed Project site.

Wildlife Corridors

Wildlife corridors refer to established migration routes commonly used by resident and migratory species for passage from one geographic location to another. Corridors are present in a variety of habitats and link undisturbed areas that would otherwise be fragmented. Maintaining the continuity of established wildlife corridors is important to *(a)* sustain species with specific

foraging requirements, *(b)* preserve a species' distribution potential, and *(c)* retain diversity among many wildlife populations. Therefore, resource agencies consider wildlife corridors to be a sensitive resource.

The proposed Project site where pipeline construction would occur is within an existing developed roadway. No wildlife movement corridors or regional wildlife linkages occur within the Project site.

Special-Status Species

For the purposes of this investigation, special-status species include plants and wildlife that are:

- Listed and protected under the Federal and/or California Endangered Species Acts;
- Listed and protected under other federal and/or state regulations;
- Sufficiently rare to qualify for listing or protection under federal and/or state regulations; or
- Considered unique or in decline by the scientific community.

Based on review of aerial imagery (Google Earth, 2021), a target species list was compiled to include those species most likely to occur on the proposed Project site. Table BIO-1 (**Appendix B**) lists each of these species, their preferred habitat, the likelihood of occurrence within the proposed Project site, and a determination of the environmental consequences that could result from implementation of the proposed Project.

Regulatory Framework

This section describes specific environmental review and consultation requirements as well as identifies permits and approvals that must be obtained from local, state, and federal agencies before implementation of the proposed Project.

Federal

Federal Endangered Species Act

The FESA of 1973 (16 USC 1531 et seq.) requires all Federal departments and agencies provide for the conservation of threatened and endangered species and their ecosystems. The Secretary of the Interior maintains a list of species likely to become endangered within the foreseeable future throughout all or a significant portion of its range (threatened) and that are currently in danger of extinction throughout all or a significant portion of its range (endangered). The FESA prohibits "take" of threatened and endangered species except under certain circumstances and only with authorization from the USFWS or the National Oceanic and Atmospheric Administration (NOAA) Fisheries through a permit under Section 7 (for Federal entities) or 10(a) (for non-Federal entities) of the Act. "Take" under the FESA includes activities such as "harass, harm, pursue, hunt shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." USFWS regulations define harm to include "significant habitat modification or degradation." On June 29, 1995, a United States (U.S.) Supreme Court ruling further defined harm to include habitat modification "…where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering."

Clean Water Act

The Clean Water Act (1977, as amended) establishes the basic structure for regulating discharges of pollutants into waters of the U.S. It gives the U.S. Environmental Protection Agency (EPA) the authority to implement pollution control programs, including setting wastewater standards for industry and water quality standards for contaminants in surface waters. The CWA makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, without a permit under its provisions.

Section 401 of the CWA requires any applicant for a federal license or permit, which involves an activity that may result in a discharge of a pollutant into waters of the U.S., obtain a certification that the discharge will comply with applicable effluent limitations and water quality standards. CWA 401 certifications are issued by Regional Water Quality Control Boards (RWQCBs) under the California Environmental Protection Agency.

Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711). The MBTA prohibits the take, possession, buying, selling, purchasing, or bartering of any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21).

Bald and Golden Eagle Protection Act

The bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) are federally protected under the Bald Eagle Protection Act (16 USC 668-668c). It is illegal to take, possess, sell, purchase, barter, offer to sell or purchase or barter, transport, export or import at any time or in any manner a bald or golden eagle, alive or dead; or any part, nest or egg of these eagles unless authorized by the Secretary of the Interior. Violations are subject to fines and/or imprisonment for up to one year. Active nest sites are also protected (under the Act) from disturbance during breeding season.

State

California Environmental Quality Act

CEQA requires that biological resources be considered when assessing the environmental impacts resulting from proposed actions. Lead agencies are charged with evaluating available data and determining what specifically should be considered an “adverse effect.”

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act provides for statewide coordination of water quality regulations by establishing the California State Water Resources Control Board. The State Board is the statewide authority that oversees nine separate RWQCBs that collectively oversee water quality at regional and local levels.

California Regional Water Quality Control Board

California RWQCBs issue CWA, Section 401 Water Quality Certifications for possible pollutant discharges into waters of the U.S. As noted in Federal Regulations, the Central Valley RWQCB is the agency responsible for CWA Section 401 and NPDES permitted discharges.

California Department of Fish and Wildlife

The CDFW enforces and permits actions regulated by the California Fish and Game Code, which governs the taking or possession of birds, mammals, fish, amphibians and reptiles, as well as natural resources such as wetlands and waters of the state. The code includes the California Endangered Species Act (CESA; Sections 2050-2115), Lake or Streambed Alteration Agreement regulations (Section 1600-1616), Native Plant Protection Act (Section 1900-1913), and Natural Community Conservation Planning (NCCP) Act (Section 2800 et seq.) as well as provisions for legal hunting and fishing, and tribal agreements for activities involving take of native wildlife.

California Endangered Species Act

The CESA generally parallels the main provisions of the FESA and is administered by the CDFW, who maintains a list of state threatened and endangered species as well as candidate and species of special concern. The CESA prohibits the "take" of any species listed as threatened or endangered unless authorized by the CDFW in the form of an Incidental Take Permit. Under California Fish and Game Code, "take" is defined as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

Native Plant Protection Act

The Native Plant Protection Act (NPPA) directs the CDFW to "preserve, protect and enhance rare and endangered plants" in California. The NPPA prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered.

Natural Community Conservation Planning Act

The CDFW is also the principal state agency responsible for implementing the NCCP Act of 1991. The Act is designed to conserve natural communities at the ecosystem scale while accommodating compatible land use. NCCP plans developed in accordance with the Act seek to ensure the long-term conservation of multiple species, while allowing for compatible and appropriate economic activity to proceed.

California Fish and Game Code: Birds of Prey

Under Section 3503.5 of the California Fish and Game Code, it is unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey or raptors) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the code.

California Fish and Game Code: Fully Protected Species

The California Fish and Game Code also accords "fully protected" status to a number of specifically identified fish, reptiles and amphibians, birds, and mammals. As fully protected species, the CDFW cannot authorize any project or action that would result in "take" of these species even with an incidental take permit.

California Oak Woodland Conservation Act

The California Oak Woodland Conservation Act, 2001, established the Oak Woodland Conservation Program to be administered by the Wildlife Conservation Board (WCB). The WCB oversees budget used to assist local jurisdictions and landowners protect and enhance oak

woodland resources. The Act further authorizes the WCB to purchase oak woodland conservation easements and fund oak restoration efforts.

Local

Yuba County General Plan

The Yuba County General Plan identifies specific goals and policies to protect and restore habitat for special-status species in the county (Yuba County, 2011a). Relevant policies include:

> Policy NR5.1: New developments that could adversely affect special-status species habitat shall conduct a biological resources assessment and identify design solutions that avoid such adverse effects. If, after examining all feasible means to avoid impacts to special-status species habitat through project design, adverse effects cannot be avoided, then impacts shall be mitigated in accordance with guidance from the appropriate state or federal agency charged with the protection of the subject species, including pre-construction surveys conducted according to applicable standards and protocols, where necessary.
>
> Policy NR5.15: Roads, water lines, sewer lines, drainage facilities, and other public facilities constructed to serve unincorporated County development shall be located and designed to avoid substantial impacts to stream courses, associated riparian areas, and wetlands, to the greatest extent feasible.

The proposed Project will be implemented in accordance with County goals, policies, and standards.

Local Land Use and Development Codes

Yuba County has established ordinances and policies related to biological resources with respect to development within their respective planning area. The analysis presented in this section has been completed in accordance with these ordinances and policies.

Yuba-Sutter Natural Community Conservation Plan and Habitat Conservation Plan

Yuba County, along with partner local agencies, is in the process of drafting a NCCP/HCP to establish a plan that allows for development and growth compatible with state and federal requirements (Yuba County, 2011b). The NCCP/HCP documents are still being drafted, but the covered species list has been published. The analysis presented in this section has taken into account potential impacts to these covered species.

Discussion

a) ***Less than Significant Impact with Mitigation.***

Special-Status Plant Species. No special-status plants have the potential to occur within the proposed Project site or staging area. Therefore, no impacts would occur on special status plants.

Special-Status Wildlife Species. As described in Table BIO-1 (refer to Appendix B), special-status wildlife with the potential for occurrence within or in the vicinity of the proposed Project site and staging area include four bird species. Trees in the surrounding

areas provide suitable nesting opportunities for many other protected avian species, such as raptors and migratory birds.

Trees in the vicinity of the proposed Project site and staging area also provide foraging opportunities for many avian species, including Swainson's hawk (*Buteo swainsoni*), northern harrier (*Circus hudsonius*), white-tailed kite (*Elanus leucurus*), and other raptors and migratory birds. Raptors and raptor nests are considered to be a protected resource by federal and state agencies under the MBTA and California Code of Regulations. However, the staging area proposed for use during construction is entirely vacant and denuded of vegetation as the site was recently graded, which suggests that no nesting habitat is readily available at the site. Moreover, construction of the proposed Project would not overlap with nesting season for the protected species as these protected bird species nest in early spring and vacate their nests as soon as their young have fledged, typically by May or June each year. Therefore, as construction would not commence until August, there would be no conflict pertaining to nesting for these species.

During construction, proposed Project activities could result in potentially significant increased noise, dust, and other indirect impacts to foraging raptors in the Project vicinity. As described in Chapter 1 *Project Description*, construction BMPs and an erosion control would be implemented. Additionally, to further reduce disturbance for wildlife species, **Mitigation Measure NOI-1, Construction Noise Reduction Measures** (described in Section, 2.2.13, *Noise*) will be employed to reduce noise at the proposed Project site. Following construction, disturbed areas would be restored in a manner consistent with Yuba County Standards.

Mitigation Measures

Mitigation Measure NOI-1: Construction Noise Reduction Measures.

(Refer to Section 2.2.13, *Noise* for text of Mitigation Measures.)

With implementation of BMPs (described in Chapter 1, *Project Description*) and Mitigation Measures NOI-1 Construction Noise Reduction Measures (described in Section 2.2.13, *Noise*), indirect impacts to wildlife species would be reduced to less-than-significant levels.

b) ***No Impact.*** The proposed Project would involve pipeline installation along an existing paved road and use a vacant lot for staging during construction. The majority of the proposed Project site is developed land with no substantial vegetative community present under existing conditions. The staging area is annual grassland, dominated by non-native plant species. Sensitive natural communities, such as riparian habitat, coastal and valley freshwater marsh, Great Valley cottonwood riparian forest, Great Valley mixed riparian forest, northern hardpan vernal pool (identified by a query of the CNDDB for the proposed Project) do not occur within the footprint of the proposed Project. Therefore, no impact to sensitive natural communities would occur with implementation of the proposed Project.

c) ***No Impact.*** No features that could be considered jurisdictional and regulated by the USACE or RWQCB per the CWA occur in the proposed Project area. Therefore, no impact to jurisdictional waters of the U.S. would occur with implementation of the proposed Project.

d) ***No Impact.*** Implementation of the proposed Project would not interfere substantially with the movement of any fish or wildlife species or impede the use of any native nursery sites or corridors. Therefore, no impact to the movement of species through the area would occur with implementation of the proposed Project.

e) ***No Impact.*** As the proposed Project would be constructed outside of nesting season, avoidance measures would be implemented to reduce any potential impact on wildlife species, which is consistent with the goals described in the Yuba County General Plan. Furthermore, no tree removal or clearance of vegetation would occur as part of the proposed Project's construction, operation, or maintenance. As no habitat would be modified by construction or operation of the proposed Project, there would be no conflict with local policies or ordinances pertaining to biological resources and no impact would occur.

f) ***Less than Significant with Mitigation.*** The proposed Project site is located within the geographic area covered under the Yuba-Sutter NCCP/HCP Planning Agreement (Yuba-Sutter 2011). The proposed Project would largely occur in paved roadway or upon bare and previously disturbed land; thus construction would not occur within natural communities that support habitat for the species noted in the Yuba-Sutter NCCP/HCP Planning Agreement. Moreover, construction of the proposed Project would not occur during nesting season or otherwise directly impact habitats through modification.

The proposed Project site is located within (bare and disturbed land) covered under the Yuba-Sutter draft NCCP/HCP. Some of those covered species have the potential for occurrence at the proposed Project site and indirect impacts could occur. In the absence of mitigation to reduce potential impacts to biological resources listed in the Yuba-Sutter NCCP/HCP Planning Agreement, construction could indirectly impact the covered species. However, as described in Question a), with implementation of Mitigation Measure NOI-1, Construction Noise Reduction Measures (refer to Section 2.2.13, *Noise* for text of mitigation), potentially significant impacts to species covered in the Yuba-Sutter NCCP/HCP would be reduced to less-than-significant levels.

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2.2.5 Cultural Resources

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
V.	**CULTURAL RESOURCES —** 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?	☐	☒	☐	☐

Discussion

a) ***No Impact***. CEQA Guidelines Section 15064.5 requires the lead agency to consider the effects of a project on historical resources. A significant impact would occur if the proposed Project would cause a substantial adverse change through physical demolition, destruction, relocation, or alteration of the resource. A historical resource is defined as any building, structure, site, or object listed in or determined to be eligible for listing in the California Register of Historical Resources (California Register), or determined by a lead agency to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California. This section addresses architectural and structural resources. Archaeological resources that are potentially historical resources according to CEQA Guidelines Section 15064.5, are addressed in section b) below.

ESA completed a records search at the North Central Information Center (NCIC) of the California Historical Resources Information System (CHRIS) at California State University, Sacramento in April 26, 2021 (File No. YUB-21-20). The records search included a 0.5-mile radius of the proposed Project area and was completed in order to: 1) determine whether known cultural resources have been recorded within the vicinity of the proposed Project; 2) assess the likelihood of unrecorded cultural resources based on historical references, and, 3) review the distribution of environmental settings of nearby site locations.

Records at the NCIC indicate that one historic-era structural resource crosses the proposed Project area: the Western Pacific/Union Pacific Railroad (P-58-001372), a standard gauge railroad segment originally operated by the Western Pacific Railroad, which was completed in 1909 (Jones & Stokes, 2004). Western Pacific Railroad became the Union Pacific Railroad in the 1980s. The railroad has been evaluated as not eligible for listing in the National Register of Historic Places (Galvin Preservation Associates, 2011). The proposed Project would be constructed in the roadway that crosses under the railroad overcrossing and there would be no impact to the railroad from installation of the pipeline.

The proposed Project would not impact historical resources, as defined in CEQA Guidelines Section 15064.5 and no mitigation is required.

b) ***Less than Significant with Mitigation***. This section discusses archaeological resources, both as historical resources according to CEQA Guidelines Section 15064.5, as well as unique archaeological resources, as defined in PRC Section 21083.2(g). A significant impact would occur if the project would cause a substantial adverse change to an archaeological resource through physical demolition, destruction, relocation, or alteration of a significant archaeological resource.

Records at the NCIC indicate that one archaeological resource [P-58-000182 (CA-YUB-164)] has been previously recorded in the vicinity of the proposed Project area. This resource is a prehistoric habitation site that was excavated and recorded as consisting of midden, lithic scatter, artifact concentration, and a cemetery (Pritchard, 1977). Today, this area is heavily disturbed from modern development.

The proposed pipeline alignment is within an existing paved road with no surface visibility that has been disturbed from installation of the roadway and existing utilities. The staging area is unpaved and was subject to a recent cultural resources investigation (Peak and Associates, 2020). No cultural resources were identified as part of that research and survey effort.

Through the records search at the NCIC and background research, no archaeological resources are in the proposed Project area. However, due to the proximity of archaeological site P-58-000182, there is a heightened potential to uncover buried archaeological resources during project implementation. Impacts to archaeological resources would be potentially significant. Any such potential impacts would be reduced to a less-than-significant level by implementing **Mitigation Measure CUL-1: Cultural Awareness Training**, which provides a pre-construction training for all Project personnel on the potential for encountering cultural resources during construction.

If any previously unrecorded archaeological resources were identified during proposed Project ground disturbing activities and were found to qualify as a historical resource, per CEQA Guidelines Section 15064.5, or a unique archaeological resource, as defined in PRC Section 21083.2(g), any impacts to the resource resulting from the Project could be potentially significant. Any such potential significant impacts would be reduced to a less-than-significant level by implementing **Mitigation Measure CUL-2: Inadvertent Discovery of Cultural Materials**, which requires that work halt in the vicinity of a find until a qualified archaeologist (and a Native American representative if the find is pre-contact Native American) can inspect the find and make further recommendations.

Mitigation Measures

Mitigation Measure CUL-1: Cultural Awareness Training. Prior to project construction, on-site personnel shall attend a mandatory pre-project training led by a qualified archaeologist meeting the Secretary of the Interior Standards for Archeology. A Native American representative from a culturally-affiliated Native American tribe will

be invited to provide input and co-present the training. The training will outline the general archaeological sensitivity of the area (without providing site specifics) and the procedures to follow in the event cultural materials and/or human remains are inadvertently discovered.

- A cultural resource awareness brochure and training program for all personnel involved in the project shall be developed in coordination with a qualified archaeologist and a Native American representative from a culturally-affiliated Native American tribe. The brochure will be distributed to personnel prior to their start on-site.

- Training shall be conducted before any stages of project implementation and construction activities begin in the project area. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations.

- The cultural resources awareness program will describe appropriate avoidance and minimization measures for resources that have the potential to be located in the project area and will outline what to do and whom to contact if any potential cultural materials are encountered.

- The program will also underscore the requirement for confidentiality and culturally-appropriate treatment of any find of significance. Any find of significance also includes finds of significance to Native Americans, consistent with Native American tribal values.

Mitigation Measure CUL-2: Inadvertent Discovery of Cultural Materials. If pre-contact or historic-era cultural materials are inadvertently discovered, the contractor shall immediately cease all work within 100 feet of the discovery. Pre-contact cultural materials might include: obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era cultural materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse.

- In the event of an unanticipated discovery, a qualified archaeologist meeting the Secretary of the Interior's Standards for Archeology will assess the significance of the find and make recommendations for further evaluation and treatment as necessary. These recommendations will be documented in the project record. A Native American representative from a culturally-affiliated tribe will be notified if the find is Native American-related and invited to inspect the find to provide input.

- For any recommendations made by a Native American representative that are not implemented, a justification for why the recommendation was not followed will be provided in the project record. The contractor shall not resume work until authorization is received from LCWD, the qualified archaeologist, and the Native American representative.

If it is determined that the proposed Project could damage a historical resource, a unique archaeological resource, or a tribal cultural resource pursuant to CEQA, mitigation shall be implemented with a preference for preservation in place. This may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If the resource cannot be avoided, a qualified archaeologist, in conjunction with a Native American representative, and LCWD, will discuss treatment, as appropriate. This shall include documentation of the resource and may include data recovery (according to PRC Section 21083.2), if deemed appropriate, or other actions such as treating the resource with culturally appropriate dignity and protecting the cultural character and integrity of the resource (according to PRC Section 21084.3).

c) ***Less than Significant with Mitigation***. Through a records search and background research, no human remains are known to exist within the proposed Project area.

If any previously unknown human remains were encountered during ground disturbing activities, any impacts to the human remains resulting from the proposed Project could be potentially significant. Any such potential significant impacts would be reduced to a less than significant level by implementing **Mitigation Measure CUL-3**: **Inadvertent Discovery of Human Remains**, which requires LCWD to contact the County Coroner and, if the remains are determined to be Native American, the Coroner shall contact the NAHC to assign a Most Likely Descendant.

Mitigation Measure CUL-3: Inadvertent Discovery of Human Remains. In the event that human remains are encountered, ground disturbing activities at that location shall cease immediately. There shall be no further excavation or disturbance of the site, or any nearby areas reasonably suspected to overlie adjacent human remains, until the County Coroner makes a determination of whether an investigation of the cause of death is required or that the remains are Native American. If the coroner determines that the remains are Native American, then the Native American Heritage Commission in Sacramento shall be contacted within 24 hours (by County Coroner), along with the Most Likely Descendant(s) of the deceased Native American (by Native American Heritage Commission), and disposition of the remains shall be in accordance with all applicable laws and regulations.

References

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2.2.6 Energy

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
VI.	**ENERGY —** 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?	☐	☐	☐	☒

Discussion

a) ***Less than Significant Impact.*** Use of energy resources necessary to construct the proposed Project would consist of fuel consumed by heavy equipment and vehicles during construction as well as lighting for the temporary construction staging area. Fuel use would be limited to that which is essential to excavation and off hauling for the Project's construction. The proposed Project is an in-road (gravity fed) water conveyance pipeline. No addition of electrical or pumps would be required as part of the proposed Project. Following construction, no increase in LCWD energy use is anticipated to occur (LCWD, 2021). There would be a less-than-significant impact associated with fuel use for the Project's construction.

b) ***No Impact.*** The proposed Project does not include any energy infrastructure nor would it increase use of energy resources during construction or operation. There would be no conflict with renewable energy plans attributable to the proposed Project.

References

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2.2.7 Geology and Soils

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
VII. GEOLOGY AND SOILS — 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?	☐	☐	☒	☐

Discussion

a.i) ***No Impact.*** The State Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) prohibits the development of structures for human occupancy across Holocene-active fault traces.[2] Under this Act, the California Geological Survey (CGS) has established "Zones of Required Investigation" on either side of an active fault that delimits areas susceptible to surface fault rupture. The zones are referred to as Earthquake Fault Zones (EFZs) and are shown on official maps published by the CGS (CGS, 2020). Surface rupture occurs when the ground surface is broken due to a fault movement during an earthquake; typically, these types of hazards occur within 50 feet of an active fault.

The proposed Project site does not lie within any mapped EFZs according to the available data (CGS, 2020). Although the area could be affected by earthquakes or seismic ground

[2] Holocene-active faults refer to faults that have had surface displacement within the Holocene Epoch, or within the last 11,700 years.

shaking, no Holocene-active faults are present within the proposed Project site. Therefore, there would be no impact related to surface fault rupture at the site.

a.ii) ***Less than Significant Impact.*** According to the Public Health and Safety Element of the Yuba County General Plan, Yuba County is in an area of low seismic activity, and therefore there is a low potential for strong seismic ground shaking (Yuba County, 2011) As the proposed Project site is located in an area of low seismic activity and none of the proposed components would be used for human occupancy, nor would any components exacerbate the existing risk of seismic shaking or associated damage, this impact would be less than significant.

a.iii) ***Less than Significant Impact.*** Liquefaction is a phenomenon in which unconsolidated, water saturated sediments become unstable due the effects of strong seismic shaking. During an earthquake, these sediments can behave like a liquid, potentially causing severe damage to overlying structures. Lateral spreading is a variety of minor landslide that occurs when unconsolidated liquefiable material breaks and spreads due to the effects of gravity, usually down gentle slopes. Liquefaction-induced lateral spreading is defined as the finite, lateral displacement of gently sloping ground as a result of pore-pressure buildup or liquefaction in a shallow underlying deposit during an earthquake. The occurrence of this phenomenon is dependent on many complex factors, including the intensity and duration of ground shaking, particle-size distribution, and density of the soil.

The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of structure slabs due to sand boiling, and buckling of deep foundations due to ground settlement. Dynamic settlement (i.e., pronounced consolidation and settlement from seismic shaking) may also occur in loose, dry sands above the water table, resulting in settlement of and possible damage to overlying structures. In general, a relatively high potential for liquefaction exists in loose, sandy soils that are within 50 feet of the ground surface and are saturated (below the groundwater table). Lateral spreading can move blocks of soil, placing strain on buried pipelines that can lead to leaks or pipe failure.

Geologic mapping by G. J. Saucedo and D. L. Wagner (Saucedo & Wagner) indicates that the surficial geology at the proposed Project site is entirely Holocene-age natural levee and channel deposits (Saucedo & Wagner, 1992). These deposits are considered to be loose, sandy soils, which can be susceptible to liquefaction. Additionally, groundwater data suggests that the depth to groundwater in proximity to the proposed Project's construction staging area ranges from approximately 24 to 26 feet below ground surface (bgs) (KCE Matrix, 2021). While it seems the conditions at the proposed Project site are potentially liquefiable, due to the low seismic activity in the area, liquefaction of soils is not likely to occur at the site. Furthermore, the proposed Project does not include the construction of any habitable structures. The impacts to life and property would be less than significant with no mitigation required.

a.iv) ***No Impact.*** A landslide is any type of ground movement that occurs primarily as a result of gravity acting on relatively weak soils and bedrock on an overly steepened slope. Often, slopes become unstable or slope instability accelerates as a result of soil saturation and groundwater pressure, although grading activity (e.g., removal of toe support by excavation) or the addition of a new load (e.g., fill placement) may also aggravate slope instability. Areas that are prone to landslides include old landslides, the bases or tops of steep or filled slopes, and drainage hollows.

According to geologic mapping by Saucedo & Wagner, there have been no documented historic landslides within the proposed Project site (Saucedo & Wagner, 1992). The topography within and around the proposed Project site is mostly level, consistent and ranges in elevation between approximately 54 and 56 feet (USGS, 2021). Additionally, the Public Health and Safety Element of the Yuba County General Plan indicates that the proposed Project site is within an area of "slight" erosion potential[3] (Yuba County, 2011).

Because there are no habitable structures proposed as part of the proposed Project, there would be no threat to human life due to landslides. Additionally, due to the relatively flat topography around the proposed Project site, landslides are not expected to affect any Project components, nor would the proposed Project directly or indirectly generate substantial adverse effects related to landslides, seismically induced or otherwise. Therefore, no impact would occur.

b) ***Less than Significant Impact.*** Construction of the proposed Project would require land-disturbing activities such as trenching and excavation that could increase the susceptibility of soils to erosion by wind and/or water, and subsequently result in soil loss or erosion. The proposed Project site is relatively flat; therefore, erosion is unlikely to be substantial along the pipeline alignment. As described in Chapter 1, *Project Description*, the contractor would establish and maintain best management practices (BMPs) for erosion control to minimize runoff into the stormdrain and surrounding properties. These measures would generally consist of placement of gravel bags and stormwater control devices at stormdrains, and/or as specified by the proposed Project's erosion and sediment control plan, subject to Yuba County review and approval. These BMPs would help reduce siltation and runoff. Implementation of BMPs would ensure impacts associated with loss of topsoil and erosion would be less than significant, with no mitigation required.

c) ***Less than Significant Impact.*** As discussed above, there is no data to suggest that the area surround the proposed Project site is susceptible to landslides or soil erosion. While the soils underlying the proposed Project site have a potential to liquefy during a strong earthquake, due to the low seismic activity of the area, the potential at the proposed Project site is low. Also discussed above, the proposed Project would not include the construction of any habitable structures and there would be no permanent on-site

[3] Erosion potential, in this reference, is classified as either slight, moderate, *severe*, or *very severe*.

personnel during operation and maintenance of the proposed Project. The impacts associated with unstable soils would be less than significant with no mitigation required.

d) ***Less than Significant Impact***. Expansive soils are soils that possess a "shrink-swell" characteristic. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying; the volume change is reported as a percent change for the whole soil. This property is measured using the coefficient of linear extensibility (COLE) (NRCS, 2017). The Natural Resources Conservation Service (NRCS) relies on linear extensibility measurements to determine the shrink-swell potential of soils. If the linear extensibility percent is more than 3 percent (COLE=0.03), shrinking and swelling may cause damage to building, roads, and other structures (NRCS, 2017). NRCS Web Soil Survey data indicates the soil underlying the proposed Project site has a 1.5 percent linear extensibility rating, which is considered a low linear extensibility rating (NRCS, 2021).

As described in the LCWD Improvement Standards and Technical Specifications, the native material will be excavated and then backfilled with imported material. The imported material would be an engineered specifically to ensure the backfilled material is adequate for usage, and does not exhibit expansive properties. The impacts related to expansive soils would be less than significant.

e) ***No Impact.*** The proposed Project does not include the use of septic tanks or alternative waste water disposal system; and therefore would not require the use of soils that are adequate for supporting such systems. There would be no impact associated with the Project having adequate soils for septic tanks or alternative waste water disposal systems.

f) ***Less than Significant Impact***. A significant impact would occur if a project would destroy a unique paleontological resource or site, or a unique geologic feature. Paleontological resources are the fossilized evidence of past life found in the geologic record. Despite the tremendous volume of sedimentary rock deposits preserved worldwide, and the enormous number of organisms that have lived through time, preservation of plant or animal remains as fossils is an extremely rare occurrence. Because of the infrequency of fossil preservation, fossils—particularly vertebrate fossils—are considered to be nonrenewable resources. Because of their rarity, and the scientific information they can provide, fossils are highly significant records of ancient life.

Holocene-age natural levee and stream deposits (Qa) are mapped at the surface along the proposed Project site. Although not mapped at the surface along the proposed Project site, geologic mapping indicates that Holocene-age basin deposits (Qb), Pleistocene-age Modesto Formation (Qm), and Pleistocene-age Riverbank Formation (Qr) are mapped in the vicinity of the proposed Project site and are present at an unknown depth beneath the proposed Project site (Saucedo & Wagner, 1992).

The University of California Museum of Paleontology (UCMP) online locality database contains records of various fossil discoveries throughout California. The UCMP database was consulted to ascertain fossil locality data in Yuba County. The UCMP records indicate

that there are just three fossil localities within Yuba County—one unidentified, Holocene-age invertebrate specimen and two unidentified, Eocene and Miocene-age plant specimens (UCMP, 2021a). While there are no records of significant vertebrate fossils within Yuba County, the neighboring Sutter County has record of four Pleistocene-age vertebrate fossil localities—one of which is in proximity to Marysville Buttes (UCMP 2021b).

In general, Holocene-age deposits are considered to have a paleontological potential that varies from low to high, depending on how deep the deposits are; the deeper portions of these deposits are older, and therefore, are considered to have a higher potential to contain paleontological resources. The Holocene-age deposits along the Project site have been dated to the middle Holocene and earlier (Wagner & Saucedo, 1992), which is considered to be too recent to preserve fossils, and have a low potential to contain significant paleontological resources.

Pleistocene-age deposits throughout California generally have a high paleontological potential to contain significant paleontological resources. Alone, the UCMP database identifies over 500 vertebrate fossil localities throughout California (UCMP, 2021c). Specifically, both the Modesto and Riverbank formations are known to contain significant vertebrate fossils (UCMP, 2021d), although none have been recovered from Yuba County.

Without more detailed mapping at the proposed Project site it is difficult to determine the exact nature of the subsurface. Middle to late Holocene-age fossils have been discovered in central California as shallowly as 5-10 feet below ground surface (Jefferson, 1991a and b). Additionally, the older formations (i.e. Modesto and Riverbank) may occur closer to the surface than is expected. Construction of the proposed pipeline would include trenching and excavation, which is expected to reach approximately 4.5 feet bgs. Due to the recent age of the surficial deposits along the proposed Project site, and the relatively shallow excavation depth, the likelihood that construction activities would inadvertently destroy a significant paleontological resource is low.

Furthermore, the proposed Project's pipeline would be located along a previously disturbed utility corridor and installed at a shallower depth of excavation compared to existing utilities present in Feather River Boulevard. Therefore, the proposed excavation would be highly unlikely to yield any paleontological resources. Impacts would be less than significant with no mitigation required.

References

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2.2.8 Greenhouse Gas Emissions

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
VIII. GREENHOUSE GAS EMISSIONS — 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?	☐	☐	☒	☐

Environmental Setting

Greenhouse gases (GHGs) trap heat by preventing some of the solar radiation that hits the earth from being reflected back into space. Some GHGs occur naturally and are needed to keep the earth's surface habitable. Over the past 100 years, human activity has substantially increased the concentration of GHGs in our atmosphere. This has intensified the greenhouse effect, increasing average global temperatures and resulting in climate change.

Carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) are the principal GHGs associated with land-use projects. CO_2, CH_4, and N_2O occur naturally and through human activity. Emissions of CO_2 are largely by-products of fossil fuel combustion, and CH_4 results from off-gassing associated with agricultural practices and landfills.

CO_2 is the reference gas for climate change because it is the predominant GHG emitted. The effect that each of the aforementioned gases can have on global warming is a combination of the mass of their emissions and their global warming potential (GWP). GWP indicates, on a pound-for-pound basis, how much a gas contributes to global warming relative to how much warming would be predicted to be caused by the same mass of CO_2. CH_4 and N_2O are substantially more potent GHGs than CO_2, with 100-year GWPs of 25 and 298 times that of CO_2, respectively (IPCC, 2007).

In emissions inventories, GHG emissions are typically reported in metric tons of CO_2 equivalents ($MTCO_2e$). CO_2e is calculated as the product of the mass emitted of a given GHG and its specific GWP. While CH_4 and N_2O have much higher GWPs than CO_2, CO_2 is emitted in such vastly greater quantities that it accounts for the majority of GHG emissions in CO_2e.

Discussion

a) ***Less than Significant Impact.*** **Construction.** The proposed Project is located within Yuba County, which is under the jurisdiction of the FRAQMD; however, the FRAQMD has not adopted a GHG threshold relative to the California Environmental Quality Act (CEQA). Consequently, this analysis applies the nearby Sacramento Metropolitan Air Quality Management District's (SMAQMD) GHG significance thresholds included in the SMAQMD Guide to Air Quality Assessment in Sacramento County (CEQA Guide). The

SMAQMD CEQA Guide's thresholds of significance were updated in April 2020 and include the following (SMAQMD, 2020):

- 1,100 $MTCO_2e$ during construction;
- Demonstrate consistency with the Climate Change Scoping Plan by implementing applicable BMPs or equivalent on-site or off-site mitigation.
  - All projects must implement Tier 1 BMPs (BMP 1 & 2)
    - BMP 1: Projects shall be designed and constructed without natural gas infrastructure.
    - BMP 2: Projects shall meet the current CalGreen Tier 2 standards, except all electric vehicle capable spaces shall instead be electric vehicle ready.
  - Projects that exceed 1,100 metric tons/year after implementation of Tier 1 BMPs must implement Tier 2 BMPs (BMP 3):
    - BMP 3: Residential projects shall achieve a 15% reduction in vehicle miles traveled per resident and office projects shall achieve a 15% reduction in vehicle miles traveled per worker compared to existing average vehicle miles traveled for the county, and retail projects shall achieve a no net increase in total vehicle miles traveled to show consistency with SB 743.

Construction of the proposed Project would generate GHG emissions from a variety of sources, including off-road construction equipment and on-road worker and vendor vehicles. For this analysis, GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. Total GHG emissions associated with the proposed Project were estimated to be approximately 36.8 $MTCO_2e$. These emissions are well below the SMAQMD threshold of 1,100 $MTCO_2e$ per year; therefore, the proposed Project's impact with respect to GHG emissions would be less than significant with no mitigation required**.**

Operation. Following construction, the affected roadway would be restored in a manner consistent with Yuba County standards and operation of the proposed Project would not continue to generate emissions. Furthermore, the proposed Project would not include construction of new development and the SMAQMD operational thresholds of significance would not apply to the proposed Project. Therefore, operation of the proposed Project would not generate GHG emissions, and there would be no impact.

b) ***Less than Significant Impact.*** CEQA Guidelines Section 15183.5 allows for public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of GHGs. As described below, the proposed Project would be consistent with CARB's 2017 Scoping Plan Update and policies and programs presented in the Yuba County General Plan.

The 2017 Scoping Plan Update establishes the framework for achieving the 2030 statewide GHG reduction target of 40 percent below 1990 levels, established by SB 32. The plan update details local actions that land-use development projects and

municipalities can implement to support the statewide goal. For project-level CEQA analyses, the 2017 Scoping Plan Update states that projects should implement feasible mitigation, preferably measures that can be implemented on-site. The Scoping Plan Update incorporates a broad array of regulations, policies, and state plans designed to reduce GHG emissions (CARB, 2017). However, the Scoping Plan Update does not include measures that are applicable to construction activities; and the proposed Project does not include operational activities that would generate GHG emissions. Therefore, the proposed Project would not conflict with the regulations and policies included in the Scoping Plan Update to reduce GHG emissions and the proposed Project would be considered consistent with the Scoping Plan Update.

The Yuba County General Plan (General Plan) includes various goals, policies, and actions that are directly and indirectly address climate change and reduce GHG emissions generated within the County. The General Plan policy that would be applicable to the Project includes Policy HS5.6 – *"The County relies, in part, on infrastructure planning and funding controlled by regional, state, and other local agencies, and will work cooperatively with these agencies to provide infrastructure and public facilities needed to support GHG-efficient development patterns"* (Yuba County, 2011). The proposed Project would be consistent with this General Plan policy, as the nature of the proposed Project is a new water supply pipeline that would serve the Cedar Lane Permanent Supportive Housing project, a recently-approved, planned affordable housing complex to be located on the north side of Feather River Boulevard, that would support GHG-efficient development patterns.

As discussed above, the proposed Project would not conflict with either the Climate Change Scoping Plan or the Yuba County General Plan policies for reducing GHG emissions. Therefore, the proposed Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases and the impact would be less than significant with no mitigation required**.**

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2.2.9 Hazards and Hazardous Materials

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
IX. HAZARDS AND HAZARDOUS MATERIALS — 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?	☐	☐	☒	☐

Discussion

a, b) ***Less than Significant Impact.*** Construction of the proposed Project would involve the routine use of small quantities of hazardous materials such as fuels, lubricants, and oil for equipment during construction. Storage and use of hazardous materials at the site during routine use could result in the accidental release of small quantities of hazardous materials, which could degrade soil and/or surface water within the proposed Project area. This impact would be potentially significant.

As discussed in Chapter 1, *Project Description*, BMPs would be implemented consistent with Yuba County Standards to minimize the risk of a hazardous materials release during construction. Additionally, the California Occupational Safety and Health Administration (Cal/OSHA) is responsible for developing and enforcing workplace safety standards, including standards for handling and using hazardous materials during operations. LCWD (as the Project owner and responsible party) would be required to follow the Cal/OSHA standards for operation and maintenance of the pipeline. The U.S. Department of Transportation (USDOT) and California Department of Transportation (Caltrans)

regulate transportation of hazardous materials. Any contractor that would handle hazardous materials during construction must prepare and implement a hazardous materials management plan for review and approval by the local Certified Unified Program Agency (CUPA), in this case Yuba County's Environmental Health Department. The hazardous materials management plan must identify 1) the hazardous materials to be used; 2) training provided to workers on the proper handling of the materials; and 3) procedures for responding to any spills. Compliance with relevant regulations would limit exposure to hazardous building materials. These regulations include the Resource Conservation and Recovery Act; the Interim Final Rule in Title 29, Part 1926.62 of the Code of Federal Regulations (lead and lead-based paint); and the requirements of the Feather River Air Quality Management District's Rules and Regulations Statement for new developments, which requires compliance with the Asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP).

Together, federal, state, and local regulations contain controls for the storage, handling, transportation, and disposal of hazardous materials, including hazardous building materials, to minimize the risk of accidental release and exposure. As the proposed Project would be required to comply with federal, state, and local regulations implemented in part through a hazardous materials management plan, the transport, use, storage, handling, and disposal of hazardous materials associated with the proposed Project's construction and operation would be adequately controlled through compliance with existing regulatory requirements during construction. This impact would be less than significant with no mitigation required**.**

c) ***Less than Significant Impact.*** As discussed under question b) above, construction of the proposed Project would involve the routine use of small quantities of hazardous materials commonly used during construction activities such as fuels, lubricants and oil for construction equipment. The proposed Project would be constructed within approximately 0.25-miles of both Cedar Lane Elementary School to the northwest and New Life Christian School to the southeast. The construction staging area is approximately 800 feet to the southeast of Cedar Lane Elementary School and is 0.25-mile northwest of New Life Christian School. Storage and use of hazardous materials at the construction staging area during construction could result in the accidental release of small quantities of hazardous materials. Also discussed above, the proposed Project would be subject to applicable federal, state, and local hazardous materials regulations. Adherence to these regulations would ensure that accidental release of hazardous materials during construction of the proposed Project would not significantly impact either the Cedar Lane Elementary School or the New Life Christian School during construction, and the impact would be less than significant with no mitigation required.

d) ***Less than Significant Impact.*** Government Code Section 65962.5 (also referred to as the "Cortese List") requires the specific hazardous materials sites to be reported to the DTSC, SWRCB, and the California Integrated Waste Management Board, whose responsibility it is to compile and maintain the records. According to the State Water Resources Control Board's (SWRCB) GeoTracker database and the Department of Toxic Substances

Control's (DTSC) EnviroStor database (SWRCB, 2021), there are three Leaking Underground Storage Tank (LUST) sites in proximity to the proposed Project site; all three LUST sites have been remediated and closed (RWQCB, 2002; RWQCB, 2017; RWQCB, 2018). Two of the sites (Darrel's Payless and Quick' N' Shop) are on Feather River Boulevard, along the proposed Project alignment. The third site (Caltrans Marysville, Case #2) is approximately 975 feet to the northwest of the intersection of Feather River Boulevard and N. Beale Road. Each of the sites have been remediated and closed, and the known soil and groundwater contamination associated with each site do not represent a significant health hazard (RWQCB, 2002; RWQCB, 2017; RWQCB, 2018). These sites have been remediated to the extent that the excavation planned as part of the proposed Project would not encounter any soil that was potentially contaminated by the aforementioned closed LUST sites. There is no groundwater contamination known as a result of the presence of the closed LUST sites. Moreover, as the depth to groundwater in the subbasin near the Project location is approximately 50-60 feet bgs, therefore excavation of the pipeline trench would not encounter groundwater.

A Phase I Environmental Site Assessment (ESA) was performed by KCE Matrix Inc. (KCE Matrix) in March of 2021 for the property that would be used as a staging area for the Project. The Phase I ESA confirms the presence of the three previously mentioned LUST sites, and concludes that the presence of these site have not resulted in soil or groundwater contamination (KCE Matrix, 2021).

As the sites have been remediated and are closed with no further action required, construction and operation of the proposed Project would not generate a significant hazard to the environment. Therefore, the impact would be considered less than significant with no mitigation required.

e) ***Less than Significant Impact***. The proposed Project site is within 2 miles of two nearby airports: Yuba County Airport (approximately 0.9-miles south of Project site) and Sutter County Airport (approximately 1.25 mile northwest of the Project site). According to the Yuba County Airport Land Use Compatibility Plan (LUCP) adopted by the Sacramento Area Council of Governments (SACOG), the proposed Project site is within the Airport Influence Area (AIA), Review Area 24, and Safety Zones 2 (Inner Approach/ Departure Zone) and 6 (Traffic Pattern Zone); however, the proposed Project site is not within any Noise Impact Zones (SACOG, 2010). According to the Sutter County Airport Comprehensive Land Use Plan (CLUP) adopted by SACOG, the proposed Project site is not within any safety zones or noise contours (SACOG, 1994).

As the proposed, the Project consists of a construction and operation of a subsurface pipeline in an existing roadway. Proposed Project activities would not result in an ongoing safety hazard. However, during construction, traffic on Feather River Blvd. could be slowed or stopped for lane closures. Construction noise would be consistent with Yuba County standards for construction and would not be considered excessive for

[4] Review Area 2 encompasses the airspace protection surfaces and Recorded Overflight Notification Area (SACOG, 2010).

people residing or working in the area. The impact would be less than significant with no mitigation required.

f) ***Less than Significant Impact***. The proposed Project's pipeline alignment would cross under SR 70 at the intersection of Feather River Boulevard and the SR 70 interchange. The Public Health and Safety Element of the Yuba County General Plan indicates that Highway 70 is considered a primary evacuation route in Yuba County.

Lane closures near the intersection of Feather River Boulevard and SR 70 as a result of proposed Project construction activities could generate traffic congestion in this area, which may impact local circulation if the SR 70 needs to be utilized as an evacuation route in the event of an emergency. If major evacuation routes are impeded due to proposed Project construction, this would be considered a significant impact. However, as the on-ramp for SR 70 would remain open throughout construction, the proposed Project would not impede evacuation from local neighborhoods.

As discussed in Chapter 1, *Project Description*, as part of the county encroachment permit process, a traffic control plan (subject to Yuba County review and approval) would be required prior to construction. The traffic control plan will include specific requirements, include coordination with the appropriate local public safety agencies, to ensure that construction activities associated with the proposed Project do not impede or physically interfere with emergency response or evacuation. Adherence to all requirements included in the traffic control plan would reduce the significance of the impact to less than significant levels.

g) ***Less than Significant Impact***. Based on mapping by the California Department of Forestry and Fire Protection (CAL FIRE) Forest Resource Assessment Program (FRAP) the Project site is not within a Very High Fire Hazard Severity Zone; it is within an urbanized, "unzoned" area and outside of the state responsibility area (CAL FIRE, 2008). The use of construction equipment and the possible temporary on-site storage of fuels and/or other flammable construction chemicals could pose an increased fire risk resulting in injury to workers or the public during construction. Contractors would be required to comply with hazardous materials storage and fire protection and prevention regulations, as defined in Title 8 of the California Code of Regulations. Additionally, contractors would be required to adhere all guidelines included in the Hazardous Materials Management Plan that is required by the California Fire Code, as Part 9 of Title 24 in the California Code of Regulations; which would minimize the risk for ignition, and reduce the risk of wildland fires associated with construction to less than significant levels.

Following construction, operation of the subsurface pipeline would pose no risk to wildland fires. The proposed Project's water pipeline and hydrants would enable Yuba County to meet fire flow requirements to more effectively counteract fire conditions in the event that a fire occurs in the local region. Therefore, in the operations and maintenance phase, wildland fire risk would effectively decrease and there would be no adverse impact.

References

California Department of Forestry and Fire Protection (CAL FIRE). 2008. Draft Fire Hazard Severity Zones in LRA for Yuba County. Fire and Resource Assessment Program. Map. Scale 1:100,000. Available: https://osfm.fire.ca.gov/media/6852/fhszl06_1_map58.pdf.

KCE Matrix Inc. (KCE Matrix). 2021. Phase I Environmental Site Assessment Report. Vacant Land, Linda Cedar Lane Family, 866 Cedar Lane, Olivehurst, California 95961.

Regional Water Quality Control Board (RWQCB). 2002. No Further Action Required, Underground Storage Tanks, Caltrans Marysville Maintenance Station, 1001 N. Beale Road, Marysville, Yuba County (LUSTIS #580226).

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State Water Resources Control Board (SWRCB). 2021. GeoTracker database. Area around Feather River Boulevard in Linda, CA. Available: https://geotracker.waterboards.ca.gov/.

2.2.10 Hydrology and Water Quality

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
X. HYDROLOGY AND WATER QUALITY — 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 offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Environmental Setting

The proposed Project would be located in the Lower Feather River watershed, which has a drainage area of 803 square miles encompassing the majority of Sutter, Yuba and Butte counties. Flows in the Feather River watershed are regulated for water supply and flood control. The river is almost entirely contained within a series of levees as it flows through agricultural lands of the Sacramento Valley (SVWP, 2021). The western terminus of the proposed Project pipeline and the proposed staging area along Alicia Avenue would be located approximately 1-mile east of the mainstem of the Feather River.

The Central Valley Sacramento San Joaquin Basin Water Quality Control Plan (Basin Plan) is the effective water quality planning document for the region where the proposed Project would be located. Surface and groundwater quality is a concern for both fisheries and agricultural supply use in the region. The Lower Feather River is listed on the Clean Water Act Section 303(d) list of impaired water bodies for temperature, chlorpyrifos, diazinon, mercury, and unknown toxicity. Constituents of concern for groundwater are total dissolved solids, nitrate, and several other individual chemical constituents (CVWQCB, 2018).

The proposed Project would be located in the Sacramento Valley South Yuba Groundwater Subbasin, covering an area of approximately 170 square miles. For the purposes of the Sustainable Groundwater Management Act (SGMA), the South Yuba Groundwater Subbasin is managed by the Yuba Water Agency with support from numerous groundwater sustainability committee organizations including LCWD.

Discussion

a) ***Less than Significant Impact.*** Construction of the proposed Project would entail trench excavation and backfill activities that could mobilize sediment or other pollutants including oils or other petroleum products into local drainages via runoff. As a Linear Utility Project (LUP) involving less than one acre of soil disturbance, coverage under the NPDES General Permit for Stormwater Discharges Associated with Construction Activities, Order No. DWQ-2009-009 (Construction General Permit) would not be required. The proposed Project would implement BMPs, as described in Chapter 1, *Project Description* to minimize and control runoff. Additionally, the construction contractor would be required to prepare an erosion and sediment control plan, subject to Yuba County review and approval as part of the encroachment permit process. Such measures would reduce mobilization of sediments into stormdrains.

As described in the Section 2.2.9, *Hazards and Hazardous Materials,* a hazardous materials management plan and spill prevention countermeasures plan would be required to be prepared for the proposed Project's construction, consistent with Yuba County requirements. The proposed Project would be required to conform to all applicable federal, state, and local regulations pertaining to hazards and hazardous materials for the protection of water resources.

With implementation of existing regulations, including the hazardous materials management plan, an erosion and sediment control plan and Project-specific BMPs (described in Chapter 1, *Project Description*), water quality impacts associated with construction of the proposed Project's would be less than significant.

The proposed Project includes no additional impervious surfaces as all work would be conducted within an existing paved roadway. Following construction, the proposed Project's impacted roadways would be restored to existing conditions, consistent with Yuba County Standards. Compliance with existing LCWD and Yuba County Standards would minimize water quality impacts during operation and maintenance phase. Therefore, the proposed Project would not violate water quality or compromise discharge requirement during either construction or operation. Impacts would be considered less than significant with no mitigation required.

b) ***Less than Significant Impact.*** The South Yuba Subbasin is categorized by the California Department of Water Resources as a high priority basin under SGMA, though not one classified as critically over drafted (DWR, 2021). Groundwater management in the subbasin relies on the use of surface water in dry years and groundwater in wet years, as

well as imported surface water. Groundwater in the Yuba Subbasins is generally stable and of good quality, meeting beneficial uses with few known impacts (YWA, 2019).

As all construction would occur within previously paved impervious surfaces and no addition of these surfaces is proposed as part of the Project. Thus, construction of the proposed Project would have no impact on groundwater supplies or recharge capacity.

LCWD water supplies are predominantly sourced through groundwater, provided through wells within its service area. The proposed Project would involve installation of a water conveyance pipeline to serve approved residential and commercial construction and improve LCWD water system's ability to meet fire flow standards in the surrounding area. In the operations phase, the proposed Project would use groundwater as provided through the new pipeline. However, the allocation of this water would not conflict with the Yuba Groundwater Management Plan or interfere with sustainable management of groundwater resources in the South Yuba subbasin. Impacts associated with operation of the Project would be considered less than significant.

c.i-iv) ***Less than Significant Impact.*** The proposed Project would not alter drainage patterns, nor add impervious surfaces. To minimize contamination through stormwater runoff during construction (as described under question a) an erosion and sediment control plan would be developed and BMPs implemented as part of the Yuba County encroachment permit process. Compliance with existing regulations and implementation of BMPs and other measures specified in the erosion and sediment control plan would ensure that runoff is controlled during construction. As the vast majority of proposed Project structures would be installed in a subsurface position within an existing paved roadway, the proposed Project would not impede or redirect flood flows.

d) ***Less than Significant Impact.*** The proposed Project site is located almost 120 miles from the California coast in Yuba County, therefore, there is no risk of tsunami, which is a coastal hazard. A seiche could occur if an enclosed water body of sufficient size were present. However, there are no such water bodies in reasonable proximity to the Due to the inland location of proposed Project site. Thus, no inundation associated with these hazards would occur and there would be no impact pertaining to tsunami or seiche.

Yuba County along with Reclamation District 784 have constructed extensive levee improvements along the Feather, Yuba and Bear Rivers, and Western Interceptor Canal, which are designed to provide flood protection to South Yuba County, including portions of Linda where the proposed Project would be constructed (Yuba County, 2011). According to the FEMA National Flood Hazard layer, the proposed Project site is not within a special flood hazard area (or regulatory floodway) but is in another area of flood hazard, which is defined by FEMA as an "area with reduced flood risk due to levee" (FEMA, 2011).

The Public Health and Safety Element of the Yuba County General Plan contains the following policy related to levee maintenance (Yuba County, 2011).

> **Policy HS1.5:** The County will continue to collaborate with the Yuba County Water Agency, local reclamation districts, levee commissions, and the U.S. Army Corps of Engineers to improve, certify, and maintain the levee system that protects developed and planned development areas in Linda and Olivehurst including the Plumas Lake Specific Plan Area. Urban areas in Yuba County should have 200-year flood protection or greater.

The proposed Project would not add impervious surfaces that would contribute to conditions for flooding and is not located in a regulatory floodway or in an area subject to seiche or tsunami; therefore, the risk for release of pollutants based on these hazards is remote. Impacts would be considered less than significant with no mitigation required.

e) As described under Question a), the proposed Project would prepare an erosion and sediment control plan and implement measures to reduce water quality impacts associated with site runoff. Through conformance to existing regulations, specifically implementation of the hazardous materials management plan, and the Project-specific erosion and sediment control plan, the proposed Project's construction would not violate water quality objectives for surface and groundwater, as identified in the Basin Plan. Therefore, the proposed Project would not conflict with the Basin Plan or conflict with the sustainable management of the groundwater basin, nor obstruct implementation of the South Yuba Subbasin Groundwater Management Plan. Therefore, potential impacts associated with construction and operation of the proposed Project would be less than significant with no mitigation required.

References

California Department of Water Resources (DWR). 2021. Basin Prioritization. https://water.ca.gov/Programs/Groundwater-Management/Basin-Prioritization.

Central Valley Regional Water Quality Control Board (CVRWQCB). 2018. The Water Quality Control Plan for the California Regional Water Quality Control Board Central Valley Region Fifth Edition, May, 2018. Sacramento River Basin and San Joaquin River Basin. https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf.

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Yuba Water Agency, et al. (YWA). 2019. Yuba Subbasins Water Management Plan, A Groundwater Sustainability Plan, December 2019. https://sgma.water.ca.gov/portal/gsp/preview/52.

2.2.11 Land Use and Planning

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XI. LAND USE AND PLANNING — Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Discussion

a) ***No Impact.*** The proposed staging area on Alicia Avenue would include temporary fencing for the purposes of public safety and security. However, the proposed Project does not include permanent structures that would divide an established community. At the conclusion of the 45-day construction period, the fencing would be removed and the site restored in a manner consistent with Yuba County standards. Therefore, there would be no impact.

b) ***No Impact.*** The proposed Project is a water conveyance pipeline within an existing utility corridor. The proposed Project would be required to comply with Yuba County Standards and procure an encroachment permit (subject to Yuba County review and approval) in order to construct the Project within the County ROW. Potential conflicts with existing utilities in the roadway of Feather River Boulevard would be resolved through a pre-construction underground service alert search and minor design changes to adjust the depth of trenching if needed. With compliance with the terms of the encroachment permit and conformance to the Yuba County and LCWD standards, would be no impact with respect to land use conflicts.

References

None used.

2.2.12 Mineral Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XII. MINERAL RESOURCES — 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?	☐	☐	☐	☒

Discussion

a), b) ***No Impact.*** The proposed Project would be located within an existing paved roadway. Mineral resources are not accessible at the site under existing conditions, nor is the Project in a mineral resource zone, as identified in the adopted Yuba County 2030 General Plan EIR (Yuba County, 2011). The proposed Project does not propose any mining, nor would the Project result in any loss of mineral resources. No impact pertaining to mineral resources would occur with construction or operation of the proposed Project.

References

Yuba County, 2011. Yuba County 2030 General Plan Environmental Impact Report. Exhibit 4.6-6, Mineral Resources. https://www.yuba.org/departments/community_development/planning_department/general_plan.php.

2.2.13 Noise

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XIII. NOISE — 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?	☐	☐	☐	☒

Environmental Setting

Sound is mechanical energy transmitted by pressure waves through a medium such as air. Noise can be defined as unwanted sound. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. Sound pressure level is measured in decibels (dB), with 0 dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies instead focusing on the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). All sound pressure levels and sound power levels reported below are A-weighted.

Noise Exposure and Ambient Noise

An individual's noise exposure is a measure of the noise experienced by the individual over a period of time. A noise level is a measure of noise at a given instant in time. However, noise levels rarely persist consistently over a long period of time. In fact, noise varies continuously with time with respect to the contributing sources in the noise environment. Noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. Background noise levels change throughout a typical day, but do so gradually, corresponding with the addition and subtraction of distant noise sources and atmospheric conditions. The addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens) makes noise constantly variable throughout a day.

These successive additions of sound to the noise environment vary the noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a noise environment and evaluate noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. Different noise descriptors used to characterize environmental noise are summarized below:

L_{eq}: The equivalent sound level is used to describe noise over a specified period of time, in terms of a single numerical value. The L_{eq} is the constant sound level which would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).

L_{dn}: The energy average of the A-weighted sound levels occurring during a 24-hour period, and which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night ("penalizing" nighttime noises). Noise between 10 p.m. and seven a.m. is weighted (penalized) by adding 10 dBA to take into account the greater annoyance of nighttime noises. L_{dn} is also referred to as DNL.

L_{max}: The instantaneous maximum noise level measured during the measurement period of interest.

Effects of Noise on People

The effects of noise on people can be placed into three categories:

- subjective effects of annoyance, nuisance, dissatisfaction;
- interference with activities such as speech, sleep, learning; and
- physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers at industrial plants often experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation exists in the individual thresholds of annoyance, and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way the new noise compares to the existing noise levels that one has adapted to, which is referred to as the "ambient noise" level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference when the change in noise is perceived but does not cause a human response;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

These relationships occur in part because of the logarithmic[5] nature of sound and the decibel system. The human ear perceives sound in a non-linear fashion; hence, the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, rather they combine logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA. However, where ambient noise levels are high in comparison to a new noise source, there will be a small change in noise levels. For example, when 70 dBA ambient noise levels are combined with a 60 dBA noise sources, the resulting noise level equals 70.4 dBA.

Noise Attenuation

Sound level naturally decreases with more distance from the source. This basic attenuation rate is referred to as the *geometric spreading loss*. The basic rate of geometric spreading loss depends on whether a given noise source can be characterized as a point source or a line source. Point sources of noise, including stationary mobile sources such as idling vehicles or on-site construction equipment, attenuate (lessen) at a rate of 6.0 dBA per doubling of distance from the source. In many cases, noise attenuation from a point source increases to 7.5 dBA for each doubling of distance due to ground absorption and reflective wave canceling. These factors are collectively referred to as *excess ground attenuation*. The basic geometric spreading loss rate is used where the ground surface between a noise source and a receiver is reflective, such as parking lots or a smooth body of water. The excess ground attenuation rate (7.5 dBA per doubling of distance) is used where the ground surface is absorptive, such as soft dirt, grass, or scattered bushes and trees.

Widely distributed noises such as a street with moving vehicles (a "line" source) would typically attenuate at a lower rate of approximately 3.0 dBA for each doubling of distance between the source and the receiver. If the ground surface between source and receiver is absorptive rather than reflective, the nominal rate increases to 4.5 dBA for each doubling of distance. Atmospheric effects, such as wind and temperature gradients, can also influence noise attenuation rates from both line and point sources of noise. However, unlike ground attenuation, atmospheric effects are constantly changing and difficult to predict.

Trees and vegetation, buildings, and barriers reduce the noise level that would otherwise occur at a given receptor distance. However, for a vegetative strip to have a noticeable effect on noise levels, it must be dense and wide. For example, a stand of trees must be at least 100 feet wide and dense enough to completely obstruct a visual path to the roadway to attenuate traffic noise by 5 dBA (Caltrans, 2009). A row of structures can shield more distant receivers depending upon the size and spacing of the intervening structures and site geometry. Similar to vegetative strips discussed above, noise barriers, which include natural topography and soundwalls, reduce noise by blocking the line of sight between the source and receiver. Generally, a simple noise barrier that breaks the line of sight between source and receiver will provide at least a 5-dBA reduction in noise.

[5] Unlike a linear scale, in a *logarithmic* scale, the ratio of successive intervals is not equal to one. Each interval on a logarithmic scale is some common factor larger than the previous interval. A typical ratio is 10, so that the marks on the scale read: 1; 10; 100; 1,000; 10,000; etc., doubling the variable plotted on the x-axis.

Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal and is typically expressed in units of inches per second (in/sec). The PPV is most frequently used to describe vibration impacts on buildings. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration (Federal Transit Administration [FTA], 2018). Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration.

Some common sources of ground-borne vibration are trains, heavy trucks traveling on rough roads, and construction activities such as blasting, pile driving, and operation of heavy earth-moving equipment. The effects of ground-borne vibration include movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile-driving during construction. In residential areas, the background vibration velocity level is usually around 50 VdB (approximately 0.0013 in/sec PPV).

Sensitive Receptors

Human response to noise varies considerably from one individual to another. Effects of noise at various levels can include interference with sleep, concentration, and communication, and can cause stress and hearing loss. Given these effects, some land uses are considered more sensitive to ambient noise levels than others. In general, residences, schools, hotels, hospitals, and nursing homes are considered to be the most sensitive to noise. Places such as churches, libraries, and cemeteries, where people tend to pray, study, and/or contemplate are also sensitive to noise. Commercial and industrial uses are considered the least noise-sensitive.

The proposed Project alignment is located along Feather River Boulevard between Alicia Avenue and N Beale Road within Yuba County. Sensitive receptors in the form of scattered residences are located along parts of the alignment with the nearest residence (at the intersection of Arboga Road and Feather River Boulevard) located as close as 90 feet from the proposed Project alignment. In addition, residential uses are also located across Alicia Avenue from the proposed staging area located west of the southernmost portion of the alignment.

Regulatory Setting

Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies. Local regulation of noise involves implementation of general plan policies and noise ordinance standards. Local general

plans tend to identify general principles intended to guide and influence development plans; local ordinances establish standards and procedures for addressing specific noise sources and activities.

Federal

Truck Operations

Federal regulations establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under 40 Code of Federal Regulations, Part 205, Subpart B. The federal truck pass-by noise standard is 80 dBA at 15 meters (approximately 50 feet) from the vehicle pathway centerline. These regulatory controls are implemented on truck manufacturers.

Vibration

The FTA has adopted vibration standards that are used to evaluate potential building damage impacts related to construction activities. The vibration damage criteria adopted by the FTA are shown in **Table NOI-1**.

TABLE NOI-1
CONSTRUCTION VIBRATION DAMAGE CRITERIA

Building Category	PPV (in/sec)
I. Reinforced-concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

SOURCE: FTA, 2018

State

Vehicle Operations

The State of California establishes noise limits for vehicles licensed to operate on public roads. The pass-by standard for heavy trucks is consistent with the federal limit of 80 dBA. The pass-by standard for light trucks and passenger cars (less than 4.5 tons, gross vehicle rating) is also 80 dBA at 15 meters from the centerline. These standards are implemented through controls on vehicle manufacturers and by legal sanctions on vehicle operators by State and local law enforcement officials.

Vibration

The California Department of Transportation (Caltrans) has developed guidance on addressing vibration issues associated with construction, operation, and maintenance of transportation projects (Caltrans, 2013). **Table NOI-2** shows the Caltrans criteria for human response to transient vibration.

TABLE NOI-2
HUMAN RESPONSE TO TRANSIENT VIBRATION

Human Response	PPV (inches/second)
Severe	2.0
Strongly Perceptible	0.9
Distinctly Perceptible	0.24
Barely Perceptible	0.035

SOURCE: Caltrans, 2013.

Local

Yuba County General Plan

Noise is addressed in the Yuba County General Plan within the Public Health and Safety Element (Yuba County, 2011). There are no quantitative noise standards specified in the General Plan for construction activities. Goals and policies applicable to construction noise and vibration from the proposed Project are listed below.

Goal HS10: Ensure that noise does not substantially reduce the local quality of life.

Policy HS10.6: New developments shall provide all feasible noise mitigation to reduce construction and other short-term noise and vibration impacts as a condition of approval.

Policy HS10.7: New developments shall ensure that construction equipment is properly maintained and equipped with noise control components, such as mufflers, in accordance with manufacturers' specifications.

Yuba County Municipal Code

The Yuba County Municipal Code does not establish quantitative noise standards for construction, but Article 3, Section 8.20.310 of the Municipal Code prohibits operation of construction equipment to perform any outside construction or repair work on buildings, structures, or projects within a residential zone, or within a radius of 500 feet therefrom, between the hours of 10:00 p.m. and 7:00 a.m. in such a manner that a reasonable person of normal sensitiveness residing in the area is caused discomfort or annoyance unless a permit has been obtained beforehand from the Community Development and Services Agency's Director of the Planning Department.

Discussion

a) ***Less than Significant with Mitigation.*** The proposed Project would generate noise primarily during construction as discussed below. Once operational, the proposed Project would not any include stationary noise sources or additional vehicle trips for maintenance. There would be no operational noise impact.

Construction of the proposed Project would take place for over a period of 9 weeks (45 workdays) from August to mid-October of 2021. Construction activities associated with the proposed Project are detailed in Section 1.5.2 of the Project Description and

would include mobilization (1 week); trenching, excavation, and backfill (6 weeks); testing (1 week) and road restoration (1 week).

Construction would involve use of equipment that would generate substantial noise at and adjacent to construction areas. Noise impacts from construction would depend on the type of activity being undertaken and the distance to the receptor location. Construction noise impacts are most severe if construction activities take place during noise-sensitive hours (early morning, evening, or nighttime hours), in areas immediately adjoining noise-sensitive land uses, and/or when construction duration lasts over extended periods of time.

Table NOI-3 shows typical noise levels produced by the types of construction equipment that are expected to be used for Project construction.

TABLE NOI-3
TYPICAL NOISE LEVELS FROM CONSTRUCTION EQUIPMENT

Type of Equipment	L_{max} at 50 feet, dBA	Acoustical Usage factor (%)
Backhoe	78	40
Compactor	83	20
Concrete Mixer Truck	79	40
Concrete Pump Truck	81	20
Crane	81	16
Dozer	82	40
Dump Truck	76	40
Excavator	81	40
Front End Loader	79	40
Grader	85	40
Paver	77	50
Pickup Truck	75	40
Roller	80	20

SOURCE: FHWA, 2017.

The operation of each piece of off-road equipment at the proposed Project site would not be constant throughout the day, as equipment would be turned off when not in use. This is accounted for in the acoustical usage factor for each type of equipment, also shown in Table NOI-3. Over a typical work day, equipment would operate at different locations on the proposed Project site and would not always be operating concurrently. Pipeline construction would occur linearly; therefore, the same set of sensitive receptors would not be exposed to noise from construction equipment over the entire duration of construction. In addition, proposed Project construction activities would be restricted to the less noise-sensitive daytime hours between 7 a.m. and 5 p.m., Monday through Saturday, thereby reducing impacts during the more noise-sensitive nighttime hours. No nighttime construction is anticipated.

To estimate daytime construction noise levels that the closest sensitive receptors would be exposed to, consistent with the methodology recommended by the FTA in its *Transit Noise and Vibration Assessment Manual*, the two noisiest pieces of equipment used for Project construction are assumed to be operating at the same time at the location closest to the nearest sensitive receptor, located approximately 90 feet from construction activities. Taking into account the acoustical usage factors, simultaneous operation of a dozer and a grader at the same location would generate a combined noise level of 76.4 dBA L_{eq}, at the nearest sensitive receptors. There are no quantitative standards for construction noise specified by either the Yuba County General Plan or the municipal code. However, General Plan Policy HS10.6 requires that projects provide all feasible noise mitigation to reduce construction noise and vibration impacts as a condition of approval. In addition, Policy HS10.7 requires that construction equipment be properly maintained and equipped with noise control components, such as mufflers, in accordance with manufacturers' specifications to limit construction noise exposure at receiving occupied land uses. Though the proposed Project would not require a permit from Yuba County and would therefore not be subject to conditions of approval, implementation of noise mitigation measures outlined in **Mitigation Measure NOI-1: Construction Noise Reduction Measures** would ensure consistency with General Plan Policies HS10.6 and HS10.7. Project construction hours would be consistent with the restrictions in Article 3, Section 8.20.310 of the County's Municipal Code. Therefore, with the implementation of Mitigation Measure NOI-1, the proposed Project would not generate 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. This impact would be less than significant with mitigation.

Mitigation Measures

Mitigation Measure NOI-1: Construction Noise Reduction Measures. The following noise reduction measures shall be implemented to reduce the impact of temporary construction-related noise on nearby receptors:

1. Require construction equipment and trucks used for project construction to utilize the best available noise control techniques (including mufflers, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds).

2. Turn off construction equipment when not in use, where applicable.

3. Locate stationary equipment, construction staging areas, and construction material areas as far from sensitive receptors as possible.

4. Require any impact equipment (e.g., jack hammers, pavement breakers, etc.) used for project construction be hydraulically or electrical powered wherever feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatically powered tools is unavoidable, the use of an exhaust muffler on the compressed air exhaust is recommended to lower noise levels from the exhaust by up to about 10 dBA. When feasible, external jackets on the impact equipment should also be incorporated to achieve a further reduction of 5 dBA. In the event that external jackets on impact equipment are not feasible, other best

management practices shall be employed to reduce noise by 5 dBA. Whenever feasible, require the use of quieter procedures.

5. When construction takes place within 100 feet of sensitive receptors, use specific techniques such as, but not limited to, restrictions on construction timing, use of sound blankets on construction equipment, and the use of temporary walls and noise barriers to block and deflect noise.

b) ***Less than Significant Impact.*** Construction activity can result in varying degrees of ground-borne vibration, depending on the type of soil, equipment, and methods employed. Operation of construction equipment can cause ground vibrations that spread through the ground and diminish in strength with distance. Buildings on the soil near the construction site respond to these vibrations with varying results, ranging from no perceptible effects at the lowest levels, low rumbling sounds and perceptible vibrations at moderate levels, and slight damage at the highest levels. While ground vibrations from construction activities do not often reach the levels that can damage structures, fragile buildings must receive special consideration.

There are no structures of historical significance in the vicinity of the proposed Project alignment that would be impacted by the proposed Project (refer to the Section 2.2.5, *Cultural Resources* for additional details about historic resources). However, sensitive receptors are located as close as 90 feet from the Project's proposed pipeline alignment. Therefore, the analysis below uses the construction vibration criteria for buildings of conventional construction and vibration levels that could generate human annoyance to assess impacts.

Construction vibration may generate perceptible vibration when impact equipment or heavy earth moving equipment are used. Construction equipment expected to be used for proposed Project construction are shown in Table NOI-3 and do not include any high vibration generating equipment such as pile drivers.

As shown in Tables NOI-1 and NOI-2, the FTA and Caltrans have adopted vibration standards that are used to evaluate potential impacts related to sensitive receiving land uses from vibration. The FTA identifies 0.2 in/sec PPV as the level at which potential damage could result to buildings of conventional construction. Caltrans identifies 0.24 in/sec PPV as the level at which vibration is distinctly perceivable to humans.

No extreme vibration generating equipment such as pile drivers and drills are anticipated to be used for project construction. A vibroplate machine and a jumping jack would be used for compaction of backfill materials; however, specific vibration levels for these equipment are not available. Conservatively assuming that the equipment would generate as much vibration as a vibratory roller, and using ground-borne vibration levels for standard types of construction equipment provided by the FTA, vibration levels from the operation of these equipment would attenuate to 0.031 in/sec PPV at the nearest sensitive receptors 90 feet from construction activities (FTA, 2018). The attenuated vibration level at the nearest receptor would be lower than the building damage and human annoyance

vibration thresholds of 0.2 in/sec and 0.24 in/sec, respectively. Therefore, operation of construction equipment would result in less-than-significant vibration impacts at nearby residences. Vibration impacts from other equipment such as bulldozers, loaded trucks and jackhammers would be lower. Further, the operation and location of each piece of construction equipment at the proposed Project site would not be constant throughout the day, equipment would be operating at different locations within the Project site and would not always be operating concurrently. Consequently, vibration levels during the majority of the construction period at the nearest off-site residences would be much lower. Therefore, ground-borne vibration impacts during construction would be less than significant.

Once operational, the proposed Project would not include any new sources of vibration. Therefore, the proposed Project would have no operational impacts with regard to ground-borne noise and vibration.

c) ***No Impact.*** There are no private airstrips located in the vicinity of the proposed Project site. The proposed Project site is located 0.9 miles north of the Yuba County Airport and 1.25 miles east of the Sutter County Airport. However, the proposed Project site is not within the 65 dBA CNEL contours for either airport (SACOG, 2021). Therefore, people working in the proposed Project area would not be exposed to excessive aircraft noise levels. There would be no impact.

References

California Department of Transportation (Caltrans). 2009. Technical Noise Supplement, November 2009. Available: https://www.gsweventcenter.com/Draft_SEIR_References/2013_0709_DOT_Technical_Noise_2009.pdf.

———. 2013. Transportation and Construction Vibration Guidance Manual, September 2013.

Federal Highway Administration (FHWA). 2017. Default Noise Emission Reference Levels and Usage Factors, last updated August 24, 2017. Available: https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm.

Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual, September 2018. Available: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/noise-and-vibration.

Sacramento Area County of Governments (SACOG). 2021. Open Data Portal. Airport Noise Contours. Published January 5, 2021. Available online: https://data.sacog.org/datasets/airport-noise-contours/explore?location=38.782348%2C-120.926828%2C8.92.

Yuba County Community Development and Services Agency. 2011. Yuba County 2030 General Plan: Chapter 6 – Public Health and Safety Element, adopted June 7, 2011. Available: https://www.yuba.org/departments/community_development/planning_department/general_plan.php.

2.2.14 Population and Housing

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XIV. POPULATION AND HOUSING — 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?	☐	☐	☐	☒

Discussion

As of 2019, the population in Yuba County is estimated to be 78,668 persons, which represents an increase of 9 percent over the past decade. Urban and suburban development in the unincorporated valley areas of Yuba County (not related to agriculture mining or some natural or cultural resource oriented purpose) is prohibited in areas outside of the Valley Growth Boundary (Policy CD1.1) defined in the Yuba County General Plan (Yuba County, 2011). The proposed Project is located within the Valley Growth Boundary.

a) ***Less than Significant Impact.*** As a water conveyance project, the proposed Project is consistent with Yuba County General Plan Housing Element Implementation Program H-3.1.5, Water and Sewer Capacity Improvements, which seeks to make water available to new approved developments to ensure that infrastructure needs are met (Yuba County, 2014). As proposed, the Project would serve future housing including the Cedar Lane Permanent Supportive Housing complex, soon to be constructed on the north side of Feather River Boulevard, east of Alicia Avenue. The Cedar Lane Project is a planned affordable housing project within the Valley Growth Boundary identified in the Yuba County General Plan (Yuba County, 2011). The Cedar Lane Project was recently certified by Yuba County Community Development and Services Agency (Yuba County, 2020).

   The proposed Project could indirectly contribute to growth through the extension of water conveyance infrastructure; however, this is planned growth supporting the Yuba County General Plan Implementation Program H-3.1.5. The proposed Project's indirect effects contributing to growth would not be substantial and as such, would be considered less than significant.

b) ***No Impact.*** No displacement of people or housing would occur as part of the proposed Project. Therefore, there would be no impact pertaining to this criterion.

References

Yuba County Community Development and Services Agency. 2011. Yuba County 2030 General Plan. Adopted June 7, 2011. https://www.yuba.org/departments/community_development/planning_department/general_plan.php.

———. 2014. Yuba County 2013-2021 Housing Element Update. Adopted January 14, 2014. Resolution No. 2014-03. https://www.yuba.org/Yuba-County-FINAL-HE_1-14-14[1].pdf.

———. 2020. RNC Environmental, LLC. Cedar Lane Permanent Supportive Housing Linda, California. NEPA Environmental Assessment. https://www.yuba.org/Linda-CedarLane%20NEPA%20ERR%20checklist.pdf.

2.2.15 Public Services

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XV. PUBLIC SERVICES —				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☐	☒
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☐	☒

Discussion

The proposed Project would serve an approved housing development, but would not increase population necessitating the construction of new or improved governmental facilities.

a.i) ***Less than Significant Impact.*** The Linda Fire Protection District covers a service area of 52 square miles including the communities of Linda, Plumas Lake, Arboga, and portions of Olivehurst. The Linda Fire Protection District, located approximately 2 miles east of the proposed Project, has 14 full time staff members and relies heavily on its paid call firefighters to respond to over 4,000 emergency calls per year. The Linda Fire Protection District also participates in the California mutual aid system (Linda Fire, 2021).

As the proposed pipeline would improve fire flows and be connected to new fire hydrants that could be accessed in the event of a fire, the proposed Project would include minor infrastructure improvements to aid with local fire response. Other than the 4 new fire hydrants and improved hydraulic conveyance, no additional public facilities are proposed or required as part of the proposed Project. Physical impacts would not be substantial during construction or operation of the proposed Project. Impacts associated with construction would be considered less than significant.

a.ii) ***No Impact***. The Yuba County Sheriff's Department is headquartered in Marysville and is comprised of multiple divisions, providing law enforcement services to unincorporated communities in Yuba County. The Yuba Sheriff's Department operates several substations, including one in Linda and one in Olivehurst.

During construction, materials and equipment would be secured at the proposed Project staging area on Alicia Avenue. Construction may require some coordination with local

law enforcement as part of a traffic control plan. However, as no alteration of public service facilities for police protection would occur as part of the proposed Project, there would be no impact.

a.iii) ***No Impact.*** There are four primary schools within two miles of the Project's proposed pipeline alignment. The closest public school is Cedar Lane Elementary, approximately 0.25 miles north of the western terminus of the proposed Project pipeline. In 2019-2020 there were 548 students enrolled at Cedar Lane Elementary, which serves kindergarten through sixth grade. New Life Christian School is a private educational institution, located 0.25 miles southeast of the Project, serving kindergarten through 12th grade. Yuba Community College is located approximately 2 miles east of the proposed Project's pipeline. The proposed Project would not include or otherwise require the construction of schools. There would be no impact pertaining to this criterion.

a.iv-v) ***No Impact.*** The proposed Project consists of a water conveyance pipeline that would improve water availability for fire protection and serve previously approved development. LCWD does not have planning jurisdiction to approve residential development. No additional housing is proposed for construction as part of the proposed Project. No parks, libraries, or other public facilities would be required to be constructed, nor are any proposed as part of this proposed Project. Therefore, there would be no impact pertaining to parks or other public services.

References

Linda Fire Protection District (Linda Fire). 2021. https://www.lindafire.org/.

2.2.16 Recreation

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XVI. RECREATION —				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Discussion

a), b) ***No Impact.*** Recreational resources in the vicinity of the proposed Project include Friendship Park managed by Yuba County. Friendship Park, located on Alicia Avenue approximately 0.25 miles south of the proposed Project, contains open space, playgrounds, baseball diamonds, basketball and tennis courts, a skate park and BBQ facilities (Yuba County, 2021). There are several points of access for fishing and light recreation along the Feather River within two miles of the proposed Project including Riverfront Park and Shanghai Bend in Yuba City. No additional recreational facilities are proposed or required as part of the proposed Project.

The proposed Project is a water conveyance pipeline and does not include recreational components. The proposed Project's construction and operation would not increase the use of neighborhood parks or other recreational facilities and there would be no impact.

References

Yuba County, 2021. Yuba County Community Parks. https://www.yuba.org/departments/community_development/community_parks.php.

2.2.17 Transportation

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XVII. TRANSPORTATION — 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

The majority of the regional commutes in Yuba County occur through personal automobile use. Yuba County roadways in the study area directly impacted by the proposed Project include North Beale Road (at the northern terminus of the Project's proposed pipeline) and Feather River Boulevard, where the majority of proposed Project construction would occur, and Alicia Avenue, where the proposed Project staging would take place. The proposed Project's pipeline would be installed in a trenched position within Feather River Boulevard, which crosses under the grade-separated overpasses of the Union Pacific Railroad and SR 70.

Regional Roadway Network

SR 70 is one of the backbones of Yuba County's regional roadway network, which serves the majority of the County's population in Marysville, Wheatland, and unincorporated Yuba County (Yuba County, 2011). The remainder of the roadway network in the vicinity of the proposed Project is formed by local roads, arterials such as North Beale Road, and collector roadways such as Feather River Boulevard, both of which contain interchanges connecting to SR 70.

Yuba-Sutter Transit

Potentially effected transit routes include Yuba Sutter Transit Route 6 (Linda Shuttle) and Route 3 (Olivehurst to Yuba College), both of which traverse portions of the proposed Project alignment along Feather River Boulevard. There are approximately 5 bus stops along the proposed 0.5-mile pipeline alignment.

Yuba-Sutter Transit is currently planning a new transit facility to serve as its operations center and provide enhanced transit services for the regional community (Yuba-Sutter Transit, 2021). Two of the top three sites under consideration are located in Linda, within 0.5 and 2.5 miles of the proposed Project, respectively. The timing for construction of the Yuba-Sutter Transit Next Generation Transit facility is not anticipated to present any conflicts or overlap with construction of the proposed Project.

Bicycle and Pedestrian Facilities

Yuba County Department of Public Works is in the process of updating its roadways and surface streets as part of the complete streets program with a transition to accessibility upgrades pursuant to the Americans with Disability Act (ADA). In 2009, the Department of Public Works installed a sidewalk, bike lane, and transit stop on Feather River Boulevard along the SR 70 underpass from North Beale Road to Garden Avenue, to improve pedestrian safety (YCDPW, 2019). The North Beale Road Complete Streets Phase II Project is currently out to bid. Alicia Avenue, where the proposed staging area is located is currently undeveloped. There are two elementary schools within 0.25 miles of the proposed Project. Cedar Lane Elementary is located approximately 800-feet northwest of the Project's proposed staging area.

a) ***Less than Significant Impact.*** The proposed Project would be located in Feather River Boulevard, which is an existing transit corridor for Yuba Sutter Transit. Route 6 (Linda Shuttle) and Route 3 (Olivehurst to Yuba College) both of which utilize Feather River Boulevard for portions of the bus routes serving the Yuba County region. An existing bus stop is located at the North Beale and Feather River Blvd. intersection, where the Project's proposed pipeline would connect to the existing water main. During construction, lane closures would occur within Feather River Blvd. which could generate temporary delays or other temporary transit conflicts, during the trenching and excavation phase.

   As required by Yuba County as part of the encroachment permit process, a traffic control plan would be developed to provide for public safety during construction and reduce potential circulation conflicts. The traffic control plan would be required to coordinate movement through and around the proposed Project site, provide and clearly mark appropriate detours, and control potential circulation conflicts, ensuring safe travel for all modes affected by proposed Project construction, including vehicle, pedestrian, bicycle, and transit movements. With implementation of the traffic control plan, temporary circulation and transit impacts associated with construction of the proposed Project would not be anticipated to conflict with any plan, ordinance or policy addressing the circulation system and this impact would be less than significant.

   Following construction, the new water pipeline would be maintained and operated by LCWD in a manner consistent with existing facilities and water infrastructure. Compared to baseline conditions, any increase in vehicle miles traveled (VMT), during operation and maintenance of the proposed Project would be considered negligible. Further, maintenance activities that may affect circulation via temporary lane closures are required to be conducted in conformance with all relevant safety standards related to work within the County right of way. For these reasons, proposed Project operations would not conflict with any plan, ordinance or policy addressing the circulation system and this impact would be less than significant.

b) ***Less than Significant Impact.*** Although there is no housing proposed as part of the proposed Project, the proposed Project would serve to provide water for residential and other community uses. Construction of the proposed Project would involve the use of heavy equipment and labor, which would generate a temporary increase in VMT during

the 45-day construction period. Consistent with the trends in Yuba County, it is assumed that the majority of construction workers would travel to the site by car or truck to conduct the trenching, excavation, and other construction activities, on a daily basis. The temporary VMT impacts resulting from proposed Project construction would be considered less than significant.

As described above, maintenance and operation of the new water pipeline would be conducted by LCWD in a manner consistent with existing water infrastructure operations and would be anticipated to occur infrequently. Compared to baseline conditions, any increase in VMT, during operation and maintenance of the proposed Project would be considered negligible. Therefore, VMT impacts associated with proposed Project would be less than significant.

c) ***Less than Significant Impact.*** The proposed Project would include construction at a busy intersection (at Feather River Boulevard and North Beale), which presents a situation where potential hazards could occur. As previously discussed a traffic control plan would be developed and implemented as part of the Yuba County encroachment permit process.

The proposed Project would be required to conform to Yuba County Standards, which are designed to minimize conflicts and allow for safe circulation of roadways and other modes of transportation. The majority of project elements would be constructed in a subsurface position. The Project's proposed fire hydrants would be designed in a manner consistent with LCWD and Yuba County Standards, which would reduce the potential for hazards.

Following construction, all roadways and associated infrastructure would be returned to its pre-construction condition, consistent with the requirements under the Yuba County encroachment permit. Operation of the proposed Project would not present any ongoing design conflicts, nor would the proposed Project be incompatible with existing uses of the surface streets or otherwise generate hazards. Therefore, impacts primarily associated with design and incompatibility with transportation uses would be considered less than significant, with no mitigation required.

d) ***Less than Significant Impact.*** Lane closures required for the proposed Project's pipeline trenching and excavation near the intersection of Feather River Boulevard and SR 70 (at the SR 70 interchange) could generate traffic congestion in this area, which may impact local circulation if the SR 70 needs to be utilized as an evacuation route in the event of an emergency. If major evacuation routes are impeded due to proposed Project construction, that would be considered a significant impact. During construction, the southbound SR 70 off-ramp (leading into town) would be temporarily closed; however, the onramp to southbound SR 70 (leading out of town) would remain open. Therefore, the proposed Project would not significantly disrupt circulation or conflict with an established route for evacuation during an emergency.

As discussed under Question a), as lane closures would be a required element of proposed Project construction, minor delays and/or traffic conflicts are anticipated to occur during the 45-day construction phase. However, with implementation of the traffic

control plan (subject to review and approval by Yuba County) safe circulation through the route would be provided for and potential transit and traffic conflicts would be addressed during construction. The traffic control plan would provide for a comprehensive approach including consultation with Yuba County and emergency response providers to allow for adequate circulation in the event of an emergency. Implementation of a traffic control plan would reduce potential conflicts associated with ingress and egress of emergency response and evacuation routes. Therefore, impacts related to emergency access would be less than significant with no mitigation required.

References

Yuba County Department of Public Works (YCDPW). 2019. Yuba County Self-Evaluation and Transition Plan for the Public Right-of-Way. April. https://www.yuba.org/Yuba%20County/Community%20Development/Public%20Works/Documents/ADA%20Transition%20Plan%202019.pdf.

Yuba County Planning Department. 2011.Yuba County General Plan 2030 Environmental Impact Report. SCH# 2010062054.

Yuba-Sutter Transit, 2021. Final Draft of the Yuba Sutter Next Generation Transit Facility Plan, February. https://www.yubasuttertransit.com/next-generation-transit-facility-plan.

2.2.18 Tribal Cultural Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XVIII. TRIBAL CULTURAL RESOURCES —				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
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.	☐	☒	☐	☐

Discussion

a.i/ii) ***Less than Significant with Mitigation.*** Tribal cultural resources are: 1) sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed, or determined to be eligible for listing in the California Register of Historical Resources (California Register), or local register of historical resources, as defined in PRC Section 5020.1(k); or, 2) a resource determined by the lead CEQA agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c). For a cultural landscape to be considered a tribal cultural resource, it must be geographically defined in terms of the size and scope of the landscape (PRC Section 21074[b]). A historical resource, as defined in PRC Section 21084.1, unique archaeological resource, as defined in PRC Section 21083.2(g), or non-unique archaeological resource, as defined in PRC Section 21083.2(h), may also be a tribal cultural resource.

Through background research at the North Central Information Center of the California Historical Resources Information System, no known archaeological resources that could be considered tribal cultural resources, listed or determined eligible for listing in the California Register, or included in a local register of historical resources as defined in PRC Section 5020.1(k), pursuant to PRC Section 21074(a)(1), would be impacted by the proposed Project.

ESA contacted the Native American Heritage Commission (NAHC) on April 26, 2021 to request a database search of their Sacred Lands File and provide a list of Native

American tribes to contact who might have interest in the proposed Project area and vicinity. On behalf of LCWD, ESA contacted tribes by letter on April 26, 2021 to provide notification of a project as required under PRC Section 21080.3.1 and Chapter 532 Statutes of 2014 (i.e. Assembly Bill 52). LCWD requested a response in writing within 30 days, pursuant to PRC Section 21080.3.1(d) if the tribe would like consultation regarding possible significant effects to tribal cultural resources.

The United Auburn Indian Community (UAIC) responded by email on May 11, 2021. UAIC commented that they are unaware of any sites of cultural or religious significance in the proposed Project area, but noted that the general vicinity is considered sensitive for buried tribal cultural resources. No additional responses have been received.

If any previously unrecorded cultural materials are identified during ground-disturbing construction activities and are found to qualify as a tribal cultural resource pursuant to PRC Section 21074(a)(1) (determined to be eligible for listing in the California Register or in a local register of historical resources), any impacts to the resource resulting from the proposed Project could be potentially significant. Any such potential significant impacts would be reduced to a less-than-significant level by implementing **Mitigation Measure CUL-1, Cultural Awareness Training, Mitigation Measure CUL-2, Inadvertent Discovery of Cultural Materials, and Mitigation Measure CUL-3, Inadvertent Discovery of Human Remains** (refer to Section 2.2.5, *Cultural Resources* for the text of the mitigation measures). These mitigation measures would ensure worker training and that work halt in the vicinity of a find until a qualified archaeologist can make an assessment and provide additional recommendations if necessary, including contacting Native American tribes.

References

Galvin Preservation Associates, *P-58-001372,* State of California Department of Recreation 523 Form set, On file at the North Central Information Center, California State University, Sacramento, California, 2011.

Jones & Stokes, *P-58-001372,* State of California Department of Recreation 523 Form set, On file at the North Central Information Center, California State University, Sacramento, California, 2004.

North Central Information Center, Database search File No. YUB-21-20. On file, ESA, 2021.

Peak and Associates, Inc., *Determination of Eligiblity and Effect for the Cedar Lane Permanent Supportive Housing Project.* February 4, 2020.

Pritchard, W. E., *P-58-000182,* State of California Department of Recreation 523 Form set, On file at the North Central Information Center, California State University, Sacramento, California, 1977.

2.2.19 Utilities and Service Systems

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XIX. UTILITIES AND SERVICE SYSTEMS — 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?	☐	☐	☐	☒

Discussion

a) ***Less than Significant Impact.*** No wastewater treatment, natural gas, electrical, or telecommunication facilities are proposed as part of the proposed Project, nor would the proposed Project require the construction or expansion of such facilities. The proposed Project includes the construction and operation of a new 10-inch diameter, 2,700 linear foot water pipeline. The construction and operation of the proposed Project is not anticipated to result in significant environmental effects with respect to this criterion. Impacts would be less than significant.

b) ***No Impact.*** The proposed Project would involve installation of a water conveyance pipeline to serve approved residential and commercial construction and improve the LCWD water system's ability to meet fire flow standards in the surrounding area. The proposed Project would not require water resources during construction. Operation of the proposed Project is anticipated to require water to provide adequate emergency fire flows and to serve approved residential development. As water supplies have been determined by LCWD to be sufficient, there would be no impact under this criterion.

c) ***No Impact.*** The proposed Project would not result in the generation of wastewater. There would be no impact under this criterion.

d) ***Less than Significant Impact.*** The proposed Project is anticipated to produce limited volumes of soils from soil trench excavation during construction. These soils would be temporarily stockpiled at the staging area during construction and would subsequently be handled in conformance with Yuba County solid waste management standards and the CALGreen code requirements which require that nonresidential building projects recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste. Solid waste would be appropriately disposed of at an approved landfill such as the Recology Ostrom Road Landfill, located at 5900 Ostrom Road Wheatland, CA 95692 The landfill is permitted to accept 3,000 tons of material daily and has a remaining capacity of approximately 39,223,000 cubic yards and is permitted through 2066 (CalRecycle, 2007). During construction, soil waste would be disposed of in an approved landfill such as the Ostrom landfill, described above or otherwise reused in conformance with applicable regulations. Although the proposed Project could increase the total waste generation in the area, the incremental contribution of the proposed Project's excavation spoils could be reasonably accommodated by the landfill. Therefore, the impact would be less than significant.

e) ***No Impact.*** As described above, LCWD or its contractor would dispose of waste generated during construction (which would consist primarily of spoils from soil trench excavation) consistent with applicable federal, state, and local recycling, reduction, and waste requirements and polices. Following construction, the proposed Project would not generate solid waste. Therefore, the proposed Project would not result in any impacts related to conflicts with statutes and regulations regarding solid waste.

References

CalRecycle. 2007. Solid Waste Information System (SWIS) Facility Site Activity Details Recology Ostrom Road Landfill (58-AA-0011). https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/733?siteID=4075.

2.2.20 Wildfire

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XX. WILDFIRE — 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?	☐	☐	☒	☐

Discussion

a) ***Less than Significant Impact.*** As discussed in Section 2.2.9, *Hazards and Hazardous Materials*, there are no specific evacuation routes discussed in either the Yuba County Emergency Operations Plan or the Yuba County Multi-Hazard Mitigation Plan (Yuba County 2015a, 2015b). SR 70 is identified as a major transportation corridor and a primary evacuation route in Yuba County in the Public Health and Safety Element (Yuba County Planning Department, 2011). As described in the Project Description, the proposed Project is located is along Feather River Boulevard. Feather River Boulevard is not considered a major roadway or a designated evacuation route in Yuba County, but the boulevard is considered a collector roadway. During construction, lane closures would occur within Feather River Boulevard, which could generate temporary delays along surface streets near the proposed Project during the trenching and excavation phase. Traffic congestion created by lane closures could impact local circulation if the SR 70 needs to be utilized as an evacuation route in the event of an emergency, which is a situation that could result in a significant impact. As required by Yuba County as part of the encroachment permit process, a traffic control plan would be developed to provide for public safety during construction and reduce potential circulation conflicts and ensure adequate emergency access. Therefore, the proposed Project would not result in significant impacts to emergency evacuation

The CAL FIRE Nevada-Yuba-Placer Unit Strategic Fire Plan contains standards and proposed projects that relate to identifying and reducing wildland fire hazards in the region, promoting land use planning processes that reduce wildland fire hazards, and developing the resources necessary to implement fire prevention strategies. The proposed Project would not conflict with the implementation of any of these standards or projects

(CAL FIRE, 2020). The proposed Project would not interfere or impede an emergency response or evacuation plan, and the impact would be less than significant.

b/c) ***Less than Significant Impact***. The proposed Project is not located in a SRA and is in an area where CAL FIRE has not provided recommended fire hazard severity mapping; therefore, the proposed Project is not in a VHFHSZ (CAL FIRE, 2007). The proposed Project would not include residential structures or require additional staffing. As no residential buildings would be constructed as part of the proposed Project, there would be no occupants subjected to the hazards associated with increased fire risk such the possibility of pollutant concentrations from wildfire or the uncontrollable spread of wildfire. However, the proposed Project is located adjacent to existing communities. Therefore, the following analysis focuses on the potential for proposed Project construction to increase the exposure of these communities to wildfire risks.

During proposed Project construction, heavy equipment, such as excavators, dozers, and dump trucks, would be used. The primary fire hazards from proposed Project construction would involve the use of vehicles and equipment. The presence and use of heavy equipment and vehicles would introduce a slight risk of ignition, as heat or sparks from construction vehicles and equipment could ignite dry vegetation and cause a fire, particularly during the drier, warmer conditions. However, as noted in Section 2.2.9, *Hazards and Hazardous Materials*, contractors would be required to comply with hazardous materials storage and fire protection and prevention regulations, as defined in Title 8 of the California Code of Regulations. Additionally, contractors would be required to adhere all guidelines included in the Hazardous Materials Management Plan that is required by the California Fire Code, as Part 9 of Title 24 in the California Code of Regulations; which would minimize the risk for ignition, and reduce the risk of wildland fires. With adherence to existing regulations, impacts would be less than significant; no mitigation required.

As implemented, operation and maintenance of the proposed Project would reduce the future risk of the spread of wildfire to surrounding communities as the proposed Project would provide fire hydrants and improve the system's ability to meet fire flows in the area, creating a more reliable fire protection water supply for existing and new infrastructure. Therefore, during the operations and maintenance phase, the proposed Project would reduce fire risk and have no adverse impacts.

d) ***Less than Significant Impact.*** The proposed Project is located in a relatively flat roadway and would not result in changes to drainage patterns which could exacerbate downslope or downstream flooding and expose people or structures to associated risks. As identified in the Project Description and discussed in Section 2.2.10, *Hydrology and Water Quality*, BMPs and an erosion control plan would further reduce potential impacts related to construction stormwater runoff.

As discussed under Question b, proposed Project construction has the potential to increase wildfire risk as a result of increased sources of ignition. However, as described

above the Project site is generally flat; therefore, ignition on the Project site would not lead to post-fire flooding or landslides. Impacts would be less than significant.

References

California Department of Forestry and Fire Protection (CAL FIRE), 2007. Very High Fire Hazard Severity Zones in LRA Map, Yuba County. https://osfm.fire.ca.gov/media/6850/fhszs_map58.pdf. Accessed May 20, 2020.

———. 2020. Nevada-Yuba- Placer Unit Strategic Fire Plan. Accessed May 21, 2020. Available: https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/fire-plan/.

Yuba County, 2015a. Yuba County Emergency Operations Plan. Adopted August 2015.

———. 2015b. Yuba County Multi-Jurisdictional Local Hazard Mitigation Plan (MHMP). Final March 2015.

Yuba County Planning Department, 2011.Yuba County General Plan 2030 Environmental Impact Report. SCH# 2010062054.

2.2.21 Mandatory Findings of Significance

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XXI. MANDATORY FINDINGS OF SIGNIFICANCE —				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion

a) ***Less than Significant with Mitigation.*** The impact analyses in the resource sections provided in this Initial Study demonstrate that the proposed Project would not significantly degrade the quality of the environment. Potential impacts, associated with biological and cultural resources would be reduced to less than significant levels with implementation of the identified mitigation measures in the respective sections. Potential impacts to biological resources would be reduced to less than significant levels with implementation of **Mitigation Measures NOI-1**, Construction Noise Reduction Measures, as described in the Section 2.2.13, *Noise*. With implementation of the recommended measures, the proposed Project would not degrade the quality of the environment, substantially reduce habitat, or threaten a plant or animal community. **Mitigation Measures CUL-1 and CUL-2** would be implemented to ensure that inadvertent discovery of cultural or tribal cultural resources would be handled appropriately resulting in a less than significant impact.

b) ***Less than Significant with Mitigation.*** CEQA Guidelines Section 15130 requires a discussion of the cumulative impacts of a project when the project's incremental contribution to a significant cumulative effect is "cumulatively considerable," meaning that the project's incremental effects are considerable when viewed along with the effects of past, current, and reasonably foreseeable future projects. An incremental, project-specific contribution to a cumulative impact is less than cumulatively considerable, and thus is not significant, if, for example, the project is required to implement mitigation measures designed to alleviate the cumulative impact.

Consistent with CEQA Guidelines Section 15130(b), the environmental analysis presented in this document includes an evaluation of past, present, and reasonably anticipated future projects that could produce related or cumulative impacts, including those projects outside the control of the Lead Agency (LCWD) and also considered regional planning documents to evaluate potential effects of the proposed Project's implementation within a regional context. Existing conditions within the cumulative impacts area of effect reflect a combination of the natural condition and the effects of past actions in the affected area. The following factors also were used to determine an appropriate list of projects to be considered in this cumulative analysis:

Similar Environmental Impacts—A relevant project is defined as a "reasonably foreseeable" project that would contribute to effects on resources also affected by the proposed Project. For the purpose of this analysis, relevant projects with potential similar environmental impacts include, for example, other public utility-related projects.

Geographic Scope—The appropriate geographic area of cumulative consideration is identified on a resource-by-resource basis as dictated by relevant physical and/or environmental boundaries (such as the extent of the groundwater basin or the roadways traveled by Project vehicles).

Timing and Temporal Scope—Incremental impacts of the proposed Project could combine with the incremental impacts of other projects to cause or contribute to cumulative effects if the proposed Project's construction, operation, and maintenance periods coincide in terms of timing with the effects of the other projects.

A review of Yuba County and LCWD projects was conducted as part of this Initial Study to determine if construction of projects in the past, present, and proposed in the reasonably foreseeable future would present potential cumulative impacts that could increase the effects of the proposed Project. Roadway improvements such as the "complete streets" projects (discussed in the Section 2.2.17, *Transportation* of this Initial Study) are currently underway in unincorporated Yuba County in close proximity to the proposed Project. Housing is also proposed for construction in the vicinity of the Project. The Cedar Lane Housing project would not be constructed within the same timeframe as the proposed Project. However, there are other projects that could be built in Linda and Olivehurst, as noted in the recently updated Yuba County Public Draft Housing Element (Yuba County, 2021). Similarly, LCWD is currently engaged in upgrades to their wastewater facility located on Mirna Avenue in Linda, approximately 1.3 miles southwest of the proposed Project. The facility upgrades are likely to include incremental increases in traffic, noise, and similar impacts as those identified during construction of the proposed Project.

Some of the roadway improvements and housing projects have been recently completed, and some are likely to be constructed within the next few years. Therefore, it is reasonable to assume that traffic and noise effects from this construction may combine to result in an increased cumulative impact considering the transportation and circulation

impacts posed by the proposed Project. However, as noted in this Initial Study, a traffic control plan (subject to Yuba County review and approval) would be developed and implemented to alleviate circulation conflicts. As with the proposed Project, other proposed and approved projects would also be required to implement similar traffic control plans and reduce effects of construction and operational noise through the implementation of mitigation measures, which would reduce impacts to less than cumulatively considerable levels.

c) ***Less than Significant with Mitigation.*** As described within the Cultural Resources, Hazards and Hazardous Materials, Noise, Transportation, Tribal Cultural Resources sections, potentially significant impacts have been identified throughout the document that could affect human beings either directly or indirectly. However, as described throughout this Initial Study/Mitigated Negative Declaration, compliance with federal, state, Yuba County, and local agency standards and regulations are necessary and would be implemented along with the mitigation measures identified herein to reduce these potential impacts to less-than-significant levels.

References

Yuba County, 2021. Yuba County Housing Element Update https://www.yuba.org/departments/community_development/planning_department/housing_element_update.php.

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CHAPTER 3
Report Preparers

Lead Agency

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Brandon Carroll	Geology, Hazards and Hazardous Materials.
Jyothi Iyer	Noise and Vibration.
Jon Teofilo	Transportation.

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CHAPTER 4
Mitigation Monitoring and Reporting Program

TABLE 4-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR THE FEATHER RIVER BLVD. PIPELINE PROJECT

Resource Area	Mitigation Measures Proposed in this IS/MND	Implementing Actions/ Responsible Party	Timing
Biological Resources	**Mitigation Measure NOI-1: Construction Noise Reduction Measures.** (Refer to *Noise and Vibration* below.)	LCWD and its designated contractor shall implement noise reduction measures as described.	During all phases of project construction.
Cultural Resources	**Mitigation Measure CUL-1: Cultural Awareness Training.** Prior to project construction, on-site personnel shall attend a mandatory pre-project training led by a qualified archaeologist meeting the Secretary of the Interior Standards for Archeology. A Native American representative from a culturally-affiliated Native American tribe will be invited to provide input and co-present the training. The training will outline the general archaeological sensitivity of the area (without providing site specifics) and the procedures to follow in the event cultural materials and/or human remains are inadvertently discovered. • A cultural resource awareness brochure and training program for all personnel involved in the project shall be developed in coordination with a qualified archaeologist and a Native American representative from a culturally-affiliated Native American tribe. The brochure will be distributed to personnel prior to their start on-site. • Training shall be conducted before any stages of project implementation and construction activities begin in the project area. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. • The cultural resources awareness program will describe appropriate avoidance and minimization measures for resources that have the potential to be located in the project area and will outline what to do and whom to contact if any potential cultural materials are encountered. • The program will also underscore the requirement for confidentiality and culturally-appropriate treatment of any find of significance. Any find of significance also includes finds of significance to Native Americans, consistent with Native American tribal values.	LCWD and its designated qualified archaeologist shall implement measure as described.	Prior to an authorization to proceed or issuance of permits.
	Mitigation Measure CUL-2: Inadvertent Discovery of Cultural Materials. If pre-contact or historic-era cultural materials are inadvertently discovered, the contractor shall immediately cease all work within 100 feet of the discovery. Pre-contact cultural materials might include: obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era cultural materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. • In the event of an unanticipated discovery, a qualified archaeologist meeting the Secretary of the Interior's Standards for Archeology will assess the significance of the find and make recommendations for further evaluation and treatment as necessary. These recommendations will be documented in the project record. A Native American representative from a culturally-affiliated tribe will be notified if the find is Native American-related and invited to inspect the find to provide input. • For any recommendations made by a Native American representative that are not implemented, a justification for why the recommendation was not followed will be provided in the project record. The contractor shall not resume work until authorization is received from LCWD, the qualified archaeologist, and the Native American representative.	LCWD and its designated qualified archaeologist shall implement measure as described.	During construction, as applicable, within 24-hours of discovery.

TABLE 4-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM FOR THE FEATHER RIVER BLVD. PIPELINE PROJECT

Resource Area	Mitigation Measures Proposed in this IS/MND	Implementing Actions/ Responsible Party	Timing
Cultural Resources (cont.)	If it is determined that the Project could damage a historical resource, a unique archaeological resource, or a tribal cultural resource pursuant to CEQA, mitigation shall be implemented with a preference for preservation in place. This may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If the resource cannot be avoided, a qualified archaeologist, in conjunction with a Native American representative, and LCWD, will discuss treatment, as appropriate. This shall include documentation of the resource and may include data recovery (according to PRC Section 21083.2), if deemed appropriate, or other actions such as treating the resource with culturally appropriate dignity and protecting the cultural character and integrity of the resource (according to PRC Section 21084.3).		
	Mitigation Measure CUL-3: Inadvertent Discovery of Human Remains. In the event that human remains are encountered, ground disturbing activities at that location shall cease immediately. There shall be no further excavation or disturbance of the site, or any nearby areas reasonably suspected to overlie adjacent human remains, until the County Coroner makes a determination of whether an investigation of the cause of death is required or that the remains are Native American. If the coroner determines that the remains are Native American, then the Native American Heritage Commission in Sacramento shall be contacted within 24 hours (by County Coroner), along with the Most Likely Descendant(s) of the deceased Native American (by Native American Heritage Commission), and disposition of the remains shall be in accordance with all applicable laws and regulations.	LCWD and its designated qualified archaeologist shall implement measure as described.	During construction, as applicable, within 24-hours of discovery.
Noise and Vibration	**Mitigation Measure NOI-1: Construction Noise Reduction Measures.** The following noise reduction measures shall be implemented to reduce the impact of temporary construction-related noise on nearby receptors: 1. Require construction equipment and trucks used for project construction to utilize the best available noise control techniques (including mufflers, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds). 2. Turn off construction equipment when not in use, where applicable. 3. Locate stationary equipment, construction staging areas, and construction material areas as far from sensitive receptors as possible. 4. Require any impact equipment (e.g., jack hammers, pavement breakers, etc.) used for project construction be hydraulically or electrical powered wherever feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatically powered tools is unavoidable, the use of an exhaust muffler on the compressed air exhaust is recommended to lower noise levels from the exhaust by up to about 10 dBA. When feasible, external jackets on the impact equipment should also be incorporated to achieve a further reduction of 5 dBA. In the event that external jackets on impact equipment are not feasible, other best management practices shall be employed to reduce noise by 5 dBA. Whenever feasible, require the use of quieter procedures. 5. When construction takes place within 100 feet of sensitive receptors, use specific techniques such as, but not limited to, restrictions on construction timing, use of sound blankets on construction equipment, and the use of temporary walls and noise barriers to block and deflect noise.	LCWD or its designated contractor shall implement the measure as described.	During all phases of project construction.

TABLE 4-1 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM FOR THE FEATHER RIVER BLVD. PIPELINE PROJECT

Resource Area	Mitigation Measures Proposed in this IS/MND	Implementing Actions/ Responsible Party	Timing
Tribal Cultural Resources	**Mitigation Measures CUL-1, CUL-2, and CUL-3**: See *Cultural Resources* above.	LCWD and its designated qualified archaeologist shall implement measure as described.	Prior to an authorization to proceed or issuance of permits. During construction, as applicable, within 24-hours of discovery.

Appendix A
Air Quality Emissions Calculations

LCWD Feather River Blvd Pipeline Project

Feather River AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	5.40	1000sqft	0.12	5,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	67
Climate Zone	3			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

LCWD Feather River Blvd Pipeline Project - Feather River AQMD Air District, Annual

Project Characteristics -

Land Use - provided by applicant - surface area of pipeline excavation

Construction Phase - schedule provided by applicant

Off-road Equipment - no construction phase

Off-road Equipment - no equipment - just truck trips

Off-road Equipment - No demo

Off-road Equipment - defaults used - no data provided

Off-road Equipment - no equipment - just truck trips

Off-road Equipment - defaults used - no info provided

Trips and VMT - assumes 10 workers per day, 10 pieces of equipment for mob/demob, 2 water trucks per day, 10 CY-capacity trucks for hauling. default trip lengths.

Grading - according to applicant - excavated material will be offhauled and backfill will be imported. 900 cubic yards is length x width x depth of excavation. 2700 ft x 2 ft x 4.5 ft. default for acres graded

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	2.00	30.00
tblConstructionPhase	NumDays	1.00	3.00
tblConstructionPhase	NumDays	1.00	3.00
tblGrading	AcresOfGrading	0.00	0.50
tblGrading	AcresOfGrading	0.00	1.50
tblGrading	MaterialExported	0.00	900.00
tblGrading	MaterialImported	0.00	900.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	4.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00

tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblTripsAndVMT	HaulingTripNumber	225.00	360.00
tblTripsAndVMT	VendorTripNumber	0.00	7.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	1.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	7.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	20.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	2.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	20.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0171	0.1819	0.1517	4.1000e-004	0.0193	7.2000e-003	0.0265	8.2000e-003	6.8500e-003	0.0151	0.0000	36.7097	36.7097	4.4400e-003	0.0000	36.8207
Maximum	**0.0171**	**0.1819**	**0.1517**	**4.1000e-004**	**0.0193**	**7.2000e-003**	**0.0265**	**8.2000e-003**	**6.8500e-003**	**0.0151**	**0.0000**	**36.7097**	**36.7097**	**4.4400e-003**	**0.0000**	**36.8207**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0171	0.1819	0.1517	4.1000e-004	0.0193	7.2000e-003	0.0265	8.2000e-003	6.8500e-003	0.0151	0.0000	36.7097	36.7097	4.4400e-003	0.0000	36.8207
Maximum	**0.0171**	**0.1819**	**0.1517**	**4.1000e-004**	**0.0193**	**7.2000e-003**	**0.0265**	**8.2000e-003**	**6.8500e-003**	**0.0151**	**0.0000**	**36.7097**	**36.7097**	**4.4400e-003**	**0.0000**	**36.8207**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-2-2021	9-30-2021	0.1974	0.1974
		Highest	0.1974	0.1974

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.4000e-004	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.4000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.0000**	**1.0000e-004**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.4000e-004	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.4000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.0000**	**1.0000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

LCWD Feather River Blvd Pipeline Project - Feather River AQMD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/2/2021	8/1/2021	5	0	
2	Mobilization	Site Preparation	8/2/2021	8/4/2021	5	3	
3	Excavation and Backfill	Grading	8/5/2021	9/15/2021	5	30	
4	Building Construction	Building Construction	8/19/2021	8/18/2021	5	0	
5	Paving	Paving	9/16/2021	9/22/2021	5	5	
6	Demobilization	Site Preparation	9/23/2021	9/27/2021	5	3	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.12

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

LCWD Feather River Blvd Pipeline Project - Feather River AQMD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	0.00	81	0.73
Demolition	Rubber Tired Dozers	1	0.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	0.00	97	0.37
Mobilization	Graders	1	0.00	187	0.41
Mobilization	Tractors/Loaders/Backhoes	1	0.00	97	0.37
Excavation and Backfill	Concrete/Industrial Saws	1	8.00	81	0.73
Excavation and Backfill	Rubber Tired Dozers	1	1.00	247	0.40
Excavation and Backfill	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	0.00	231	0.29
Building Construction	Forklifts	2	0.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	0.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Demobilization	Air Compressors	1	0.00	78	0.48
Demobilization	Graders	1	0.00	187	0.41
Demobilization	Tractors/Loaders/Backhoes	1	0.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Mobilization	2	20.00	7.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavation and Backfill	4	20.00	4.00	360.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demobilization	3	20.00	7.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Mobilization - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Mobilization - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.1800e-003	2.3000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2891	0.2891	2.0000e-005	0.0000	0.2895
Worker	1.1000e-004	9.0000e-005	8.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1925	0.1925	1.0000e-005	0.0000	0.1926
Total	**1.5000e-004**	**1.2700e-003**	**1.0700e-003**	**0.0000**	**3.1000e-004**	**0.0000**	**3.1000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.4815**	**0.4815**	**3.0000e-005**	**0.0000**	**0.4822**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Mobilization - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.1800e-003	2.3000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2891	0.2891	2.0000e-005	0.0000	0.2895
Worker	1.1000e-004	9.0000e-005	8.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1925	0.1925	1.0000e-005	0.0000	0.1926
Total	**1.5000e-004**	**1.2700e-003**	**1.0700e-003**	**0.0000**	**3.1000e-004**	**0.0000**	**3.1000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.4815**	**0.4815**	**3.0000e-005**	**0.0000**	**0.4822**

3.4 Excavation and Backfill - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0115	0.0000	0.0115	6.2300e-003	0.0000	6.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0120	0.1088	0.1135	1.8000e-004		6.1100e-003	6.1100e-003		5.8300e-003	5.8300e-003	0.0000	15.6140	15.6140	2.9100e-003	0.0000	15.6868
Total	**0.0120**	**0.1088**	**0.1135**	**1.8000e-004**	**0.0115**	**6.1100e-003**	**0.0176**	**6.2300e-003**	**5.8300e-003**	**0.0121**	**0.0000**	**15.6140**	**15.6140**	**2.9100e-003**	**0.0000**	**15.6868**

3.4 Excavation and Backfill - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3600e-003	0.0460	7.1400e-003	1.5000e-004	3.0400e-003	1.6000e-004	3.2000e-003	8.4000e-004	1.5000e-004	9.9000e-004	0.0000	13.8871	13.8871	6.2000e-004	0.0000	13.9026
Vendor	2.1000e-004	6.7600e-003	1.3300e-003	2.0000e-005	3.9000e-004	2.0000e-005	4.1000e-004	1.1000e-004	2.0000e-005	1.3000e-004	0.0000	1.6518	1.6518	1.1000e-004	0.0000	1.6545
Worker	1.1000e-003	8.7000e-004	8.4200e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3800e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9248	1.9248	6.0000e-005	0.0000	1.9263
Total	**2.6700e-003**	**0.0536**	**0.0169**	**1.9000e-004**	**5.8000e-003**	**1.9000e-004**	**5.9900e-003**	**1.5800e-003**	**1.8000e-004**	**1.7600e-003**	**0.0000**	**17.4637**	**17.4637**	**7.9000e-004**	**0.0000**	**17.4833**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0115	0.0000	0.0115	6.2300e-003	0.0000	6.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0120	0.1088	0.1135	1.8000e-004		6.1100e-003	6.1100e-003		5.8300e-003	5.8300e-003	0.0000	15.6140	15.6140	2.9100e-003	0.0000	15.6867
Total	**0.0120**	**0.1088**	**0.1135**	**1.8000e-004**	**0.0115**	**6.1100e-003**	**0.0176**	**6.2300e-003**	**5.8300e-003**	**0.0121**	**0.0000**	**15.6140**	**15.6140**	**2.9100e-003**	**0.0000**	**15.6867**

3.4 Excavation and Backfill - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3600e-003	0.0460	7.1400e-003	1.5000e-004	3.0400e-003	1.6000e-004	3.2000e-003	8.4000e-004	1.5000e-004	9.9000e-004	0.0000	13.8871	13.8871	6.2000e-004	0.0000	13.9026
Vendor	2.1000e-004	6.7600e-003	1.3300e-003	2.0000e-005	3.9000e-004	2.0000e-005	4.1000e-004	1.1000e-004	2.0000e-005	1.3000e-004	0.0000	1.6518	1.6518	1.1000e-004	0.0000	1.6545
Worker	1.1000e-003	8.7000e-004	8.4200e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3800e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.9248	1.9248	6.0000e-005	0.0000	1.9263
Total	**2.6700e-003**	**0.0536**	**0.0169**	**1.9000e-004**	**5.8000e-003**	**1.9000e-004**	**5.9900e-003**	**1.5800e-003**	**1.8000e-004**	**1.7600e-003**	**0.0000**	**17.4637**	**17.4637**	**7.9000e-004**	**0.0000**	**17.4833**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.8000e-003	0.0168	0.0177	3.0000e-005		8.8000e-004	8.8000e-004		8.2000e-004	8.2000e-004	0.0000	2.3481	2.3481	6.8000e-004	0.0000	2.3652
Paving	1.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.9600e-003**	**0.0168**	**0.0177**	**3.0000e-005**		**8.8000e-004**	**8.8000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.3481**	**2.3481**	**6.8000e-004**	**0.0000**	**2.3652**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.5000e-004	1.4000e-003	0.0000	3.9000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3208	0.3208	1.0000e-005	0.0000	0.3211
Total	**1.8000e-004**	**1.5000e-004**	**1.4000e-003**	**0.0000**	**3.9000e-004**	**0.0000**	**4.0000e-004**	**1.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3208**	**0.3208**	**1.0000e-005**	**0.0000**	**0.3211**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.8000e-003	0.0168	0.0177	3.0000e-005		8.8000e-004	8.8000e-004		8.2000e-004	8.2000e-004	0.0000	2.3481	2.3481	6.8000e-004	0.0000	2.3652
Paving	1.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.9600e-003**	**0.0168**	**0.0177**	**3.0000e-005**		**8.8000e-004**	**8.8000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.3481**	**2.3481**	**6.8000e-004**	**0.0000**	**2.3652**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.5000e-004	1.4000e-003	0.0000	3.9000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3208	0.3208	1.0000e-005	0.0000	0.3211
Total	**1.8000e-004**	**1.5000e-004**	**1.4000e-003**	**0.0000**	**3.9000e-004**	**0.0000**	**4.0000e-004**	**1.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3208**	**0.3208**	**1.0000e-005**	**0.0000**	**0.3211**

3.7 Demobilization - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.0000e-004	0.0000	8.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.0000e-004**	**0.0000**	**8.0000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Demobilization - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.1800e-003	2.3000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2891	0.2891	2.0000e-005	0.0000	0.2895
Worker	1.1000e-004	9.0000e-005	8.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1925	0.1925	1.0000e-005	0.0000	0.1926
Total	**1.5000e-004**	**1.2700e-003**	**1.0700e-003**	**0.0000**	**3.1000e-004**	**0.0000**	**3.1000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.4815**	**0.4815**	**3.0000e-005**	**0.0000**	**0.4822**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.0000e-004	0.0000	8.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.0000e-004**	**0.0000**	**8.0000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Demobilization - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.1800e-003	2.3000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2891	0.2891	2.0000e-005	0.0000	0.2895
Worker	1.1000e-004	9.0000e-005	8.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1925	0.1925	1.0000e-005	0.0000	0.1926
Total	**1.5000e-004**	**1.2700e-003**	**1.0700e-003**	**0.0000**	**3.1000e-004**	**0.0000**	**3.1000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.4815**	**0.4815**	**3.0000e-005**	**0.0000**	**0.4822**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.557359	0.027554	0.168081	0.110809	0.027273	0.005750	0.020698	0.074029	0.001179	0.001040	0.004352	0.001063	0.000813

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.4000e-004	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.0000e-004
Unmitigated	5.4000e-004	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.9000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.0000e-004
Total	**5.4000e-004**	**0.0000**	**5.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.0000**	**1.0000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.9000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.0000e-004
Total	**5.4000e-004**	**0.0000**	**5.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.0000**	**1.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B
Biological Resources

TABLE BIO-1
SPECIAL-STATUS SPECIES WITH A POTENTIAL FOR OCCURRENCE NEAR THE PROJECT SITE

Scientific Name	Common Name	Status			Habitat Requirements	Likelihood of Occurrence in the Project Site	Proposed Project Environmental Consequences
		Federal	State	Other			
Plants							
Astragalus tener var. *ferrisiae*	Ferris' milk-vetch	None	None	1B.1	Annual herb found in vernally mesic meadows and subalkaline flats from 5–250 feet. Known from the Sacramento Valley. Blooms April through May (CNPS 2021, Jepson 2021).	**None.** No suitable habitat.	No Effect
Delphinium recurvatum	recurved larkspur	None	None	1B.2	Perennial herb found in alkaline chenopod scrub, cismontane woodland, and valley and foothill grassland from 10 to 2,450 ft. Known from Alameda, Butte, Contra Costa, Colusa, Fresno, Glenn, Kings, Kern, Madera, Merced, Monterey, San Joaquin, San Luis Obispo, Solano, and Tulare cos. Blooms March through June (CNPS 2021). Grows in poorly drained, fine, alkaline soils (Baldwin et al. 2012).	**None.** No alkaline soils.	No Effect
Downingia pusilla	dwarf downingia	None	None	2B.2	Occurs in valley and foothill grassland in mesic sites and vernal pools, typically at vernal lake or pool margins with a variety of other associates at elevations ranging from 3 to 1,460 feet. Blooming period is March through May (CNPS 2021).	**None.** No swales or mesic sites.	No Effect
Hibiscus lasiocarpos var. *occidentalis*	woolly rose-mallow	None	None	1B.2	Perennial rhizomatous herb found in freshwater marshes and swamps, often in riprap on the sides of levees, from 0 –400 feet. Known from the Central Valley and Cascade Range foothills. Blooms June through September (CNPS 2021, Jepson 2021).	**None.** No suitable habitat.	No Effect
Legenere limosa	legenere	None	None	1B.1	Occurs in beds of vernal pools at elevations ranging from 3 to 2,887 feet. Blooming period is April through June (CNPS 2021).	**None.** No suitable habitat.	No Effect
Monardella venosa	veiny monardella	None	None	1B.1	Annual herb found in heavy clay of cismontane woodland and valley and foothill grassland from 200 to 1,345 ft. Known from Butte, Sutter, Tuolumne, and Yuba cos. Blooms May through July (CNPS 2021).	**None.** Soils are sandy and fine. An old CNDDB record with a 5 mile radius overlaps the study site but it is considered possibly extirpated.	No Effect

TABLE BIO-1
SPECIAL-STATUS SPECIES WITH A POTENTIAL FOR OCCURRENCE NEAR THE PROJECT SITE

Scientific Name	Common Name	Status			Habitat Requirements	Likelihood of Occurrence in the Project Site	Proposed Project Environmental Consequences
		Federal	State	Other			
Navarretia leucocephala ssp. *bakeri*	Baker's navarretia	None	None	1B.1	An annual herb found in mesic habitats of cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland, and vernal pools from 15 to 5,700 ft. Known from the high Cascade Range, Klamath Ranges, north Coast Ranges, Sacramento Valley, and Bay Area. Blooms April through July (CNPS 2021).	**None.** No mesic habitats or vernal pools.	No Effect
Pseudobahia bahiifolia	Hartweg's golden sunburst	FE	SE	1B.1	Annual herb found in clay, often acidic soils; and loam, sandy loam and high pumice content soils, in cismontane woodland and Valley and foothill grassland from 49 to 492 ft (USFWS 2007, CNPS 2021). It occurs almost entirely in nonnative grasslands, primarily those associated with Mima mound topography. Plants are nearly always found on the upper, northeast-facing slopes of Mima mounds where grass cover is minimal. Optimal habitat also includes the north to northeast-facing slopes of small hills associated with the upland portion of vernal pool habitats (USFWS 2007). Known from Fresno, Madera, Merced, Stanislaus, and Tuolumne cos. Presumed extirpated in Yuba Co. Blooms March through April (Baldwin et al. 2012; CNPS 2021).	**None.** While marginal habitat occurs in valley grassland with sandy soil in the staging area, the Project site and staging area occur outside of the known extant geographic range for this species. This species is presumed extirpated within Yuba County. An old CNDDB record overlaps the study site but it is considered extirpated.	No Effect
Sagittaria sanfordii	Sanford's arrowhead	None	None	1B.2	Emergent perennial rhizomatous herb found in freshwater marshes, swamps, ponds, and ditches from 0–2,200 feet. Known from the Klamath Ranges, north and south coasts, Cascade Range foothills, and Central Valley. Blooms May through October, and sometimes into November (CNPS 2021, Jepson 2021).	**None.** No aquatic habitat.	No Effect
Trichocoronis wrightii var. *wrightii*	Wright's trichocoronis	None	None	2B.2	Annual herb found in meadows and seeps, marshes and swamps, riparian forest, and vernal pools form 16 to 1427 ft. Blooms May through September (CNPS 2021).	**None.** No suitable habitat.	No Effect

TABLE BIO-1
SPECIAL-STATUS SPECIES WITH A POTENTIAL FOR OCCURRENCE NEAR THE PROJECT SITE

Scientific Name	Common Name	Status			Habitat Requirements	Likelihood of Occurrence in the Project Site	Proposed Project Environmental Consequences
		Federal	State	Other			
Wildlife							
Invertebrates							
Branchinecta conservatio	conservancy fairy shrimp	FE	None	None	Occurs in swales in grassland communities and in large turbid vernal pools, where rooted vegetation is absent (USFWS 2005). Known from eight populations in CA: Vina Plains, Butte and Tehama cos.; Sacramento National Wildlife Refuge, Glenn Co.; Yolo Bypass Wildlife Area, Yolo Co.; Jepson Prairie, Solano Co.; Mapes Ranch, Stanislaus Co.; University of CA, Merced, Merced Co.; Grasslands Ecological Area, Merced Co.; and Los Padres National Forest, Ventura Co. (USFWS 2005).	**None.** No swales or vernal pools.	No Effect
Branchinecta lynchi	vernal pool fairy shrimp	FT	None	None	Occurs in vernal pools and other seasonal wetlands in open grasslands. Does not occur in areas subject to flooding from large rivers or other waterways (USFWS 2007).	**None.** No swales or vernal pools.	No Effect
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	FT	None	None	Entirely dependent on elderberry shrubs (Sambucus spp.) with stems one inch or greater in diameter at ground level for all stages of its life cycle. Typically occurs in or near riparian habitats where their elderberry host plant is more abundant (USFWS 2017).	**None.** The Project site and staging area do not contain elderberry shrubs.	No Effect
Lepidurus packardi	vernal pool tadpole shrimp	FE	None	None	Occurs in vernal pools and other seasonal wetlands in open grasslands. Does not occur in areas subject to flooding from large rivers or other waterways (USFWS 2005).	**None.** No swales or vernal pools.	No Effect

TABLE BIO-1
SPECIAL-STATUS SPECIES WITH A POTENTIAL FOR OCCURRENCE NEAR THE PROJECT SITE

Scientific Name	Common Name	Status			Habitat Requirements	Likelihood of Occurrence in the Project Site	Proposed Project Environmental Consequences
		Federal	State	Other			
Fishes							
Hypomesus transpacificus	Delta smelt	FT	SE	None	Euryhaline (tolerant of a wide salinity range) species that is confined to the San Francisco Estuary, principally in the Delta and Suisun Bay. They occur in the Delta primarily below Isleton on the Sacramento River side and below Mossdale on the San Joaquin River side. They are found seasonally throughout Suisun Bay and in small numbers in larger sloughs of Suisun marsh. They move into sloughs and channels of the western Delta (e.g., Lindsey Slough) when spawning (mainly March-April). Can be washed into San Pablo Bay during high-outflow periods, but do not establish permanent populations there (Moyle 2002).	**None.** No aquatic habitat.	No Effect
Oncorhynchus mykiss irideus pop. 11	steelhead – Central Valley DPS	FT	None	None	Anadromous salmonid historically distributed throughout the Sacramento and San Joaquin river drainages. While steelhead are found elsewhere in the Sacramento River system, the principal remaining wild populations are comprised of a few hundred fish that spawn annually in Deer and Mill Creeks in Tehama Co, and a population of unknown size in the lower Yuba River. With the possible exception of a small population in the lower Stanislaus River, steelhead appear to have been extirpated from the San Joaquin basin (Moyle 2002). Spawning occurs in small tributaries on coarse gravel beds in riffle areas (Busby et al. 1996).	**None.** No aquatic habitat.	No Effect

TABLE BIO-1
SPECIAL-STATUS SPECIES WITH A POTENTIAL FOR OCCURRENCE NEAR THE PROJECT SITE

Scientific Name	Common Name	Status			Habitat Requirements	Likelihood of Occurrence in the Project Site	Proposed Project Environmental Consequences
		Federal	State	Other			
Oncorhynchus tshawytscha pop. 11	Chinook salmon Central Valley spring-run ESA	FT	ST	None	Anadromous salmonid historically distributed throughout the Sacramento and San Joaquin river drainages. Extant populations of this ESU spawn in the Sacramento River and its tributaries. Populations in the San Joaquin River are believed to be extirpated (NMFS 2021). Though historically found in Sacramento, San Joaquin, Klamath and Eel Rivers and their larger tributaries, today populations are only known to exist in the Sacramento and Klamath drainages (Moyle 2002). Adult female chinook will prepare a spawning bed in a stream with suitable gravel composition, water depth, and velocity (NMFS 2021). Enters the Sacramento River Basin from March through September and spawns from late August to October (Moyle 2002).	**None.** No aquatic habitat.	No Effect
Pogonichthys macrolepidotus	Sacramento splittail	None	None	CSC	A cyprinid endemic to California, mainly to sloughs, lakes and rivers of the Central Valley. Spawns on shorelines of brackish water habitats, inundated floodplains, and slow-moving, shallow reaches of large rivers (USFWS 2003, 2010b). They are largely absent from the northern extent of their range. During most years, except when spawning, splittail are largely confined to the Delta, Suisun Bay, Suisun Marsh, the lower Napa River, the lower Petaluma River, and other parts of the San Francisco Estuary. Spawning can take place any time from late February to early July (Moyle 2002).	**None.** No aquatic habitat.	No Effect
Amphibians							
Spea (Scaphiopus) hammondii	western spadefoot	None	None	CSC	Valley and foothill grasslands; occasionally in valley-foothill hardwood woodlands. Requires vernal pools for breeding and egg-laying. Most of the year is spent in underground burrows up to 36 inches deep. (CWHR 2021).	**None.** No vernal pools for breeding.	No Effect

TABLE BIO-1
SPECIAL-STATUS SPECIES WITH A POTENTIAL FOR OCCURRENCE NEAR THE PROJECT SITE

Scientific Name	Common Name	Status			Habitat Requirements	Likelihood of Occurrence in the Project Site	Proposed Project Environmental Consequences
		Federal	State	Other			
Rana draytonii	California red-legged frog	FT	None	CSC	Inhabits ponds, quiet pools of streams, marshes, and riparian areas with dense, shrubby, or emergent vegetation. Requires permanent or nearly permanent pools for larval development (CWHR 2021; USFWS 2010). May use ephemeral water bodies for breeding if permanent water is nearby (Thomson et al. 2016). Occurs from near sea level to approximately 5,200 ft, though nearly all sightings have occurred below 3,500 ft. Probably extirpated from the floor of the Central Valley before 1960 (USFWS 2002).	**None.** No aquatic habitat.	No Effect
Reptiles							
Actinemys marmorata	western pond turtle	None	None	CSC	Typically inhabit ponds, slow-moving streams and rivers, irrigation ditches, and reservoirs with abundant emergent and/or riparian vegetation. Require basking sites such as partially submerged logs, rocks, mats of vegetation or open mud banks (CWHR 2021).	**Not likely –** No aquatic habitat nearby. Too far from feather river to be upland habitat.	No Effect
Thamnophis gigas	giant garter snake	FT	ST	None	Habitat requirements are: 1) adequate water during the snake's active season (early spring through mid-fall) to provide food and cover; 2) emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat during the active season; 3) grassy banks and openings in waterside vegetation for basking; and 4) higher elevation uplands for cover and refuge from flood waters during the snake's winter dormant season (USFWS 1999).	**Not likely –** No aquatic habitat nearby. Too far from feather river to be upland habitat.	No Effect
Birds							
Agelaius tricolor	tricolored blackbird	None	ST	CSC	Forages on ground in cropland and grassland. Nests near or over freshwater. Prefers emergent marsh of dense cattails or tules for nesting, but also nests in thickets of willow, blackberry, wild rose, and tall herbs. Nesting area must be large enough to support a minimum colony of about 50 pairs. Occurs primarily in the Central Valley and in coastal areas south of Sonoma County (CWHR 2021). Nesting colonies are of concern to CDFW (2021c).	**None**. No nesting habitat within project site. There is a record overlapping, but is mapped as a 1-mile radius. This species might fly over but no nesting colony potential.	No Effect

TABLE BIO-1
SPECIAL-STATUS SPECIES WITH A POTENTIAL FOR OCCURRENCE NEAR THE PROJECT SITE

Scientific Name	Common Name	Status			Habitat Requirements	Likelihood of Occurrence in the Project Site	Proposed Project Environmental Consequences
		Federal	State	Other			
Athene cunicularia	burrowing owl	None	None	CSC	Yearlong resident of open, dry grassland and desert habitat, and in grass, forb, and open shrub stages of pinyon-juniper and Ponderosa pine habitats, from sea level to 5,300 ft. Uses small mammal burrows, often those of ground squirrels, for roosting and nesting cover. Nest boxes, pipes, and culverts may be used if burrows are scarce. Occurs throughout CA except the high mountains and northwestern coastal forests (CWHR 2021). Burrowing sites and some wintering sites are of concern to CDFW (2021c).	**None.** No suitable habitat occurs in in the Project site or staging area.	No Effect
Buteo swainsoni	Swainson's hawk	None	ST	BCC	Forages in a wide variety of open habitats such as grasslands, open scrub, and agricultural fields. Nests in large, typically riparian trees, but will occasionally utilize ornamental species such as eucalyptus if they are near foraging habitat (CWHR 2021).	**None.** Although suitable nesting trees do occur along the Project corridor and in surrounding areas, construction of the Project would occur outside of nesting season. This species has been recorded within one mile of the Project location.	No Effect.
Circus hudsonius	northern harrier	None	None	CSC	Occurs in annual grassland up to lodgepole pine and alpine meadow habitat as high as 10,000 ft. Breeds from sea level to 5,700 ft in the Central Valley and Sierra Nevada Mountains, and up to 3,600 ft in northeastern California. Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetland, though seldom found in wooded areas. Uses tall grasses and forbs in wetlands, or at the wetland/field border, for cover. Roosts and nests on the ground in shrubby vegetation, usually at marsh edges. Mostly nests in emergent wetlands or along rivers or lakes, but may nest in grasslands, grain fields, or on sagebrush flats several miles from water (CWHR 2021). Nesting sites are of concern to CDFW (2021c).	**None.** No suitable habitat occurs in the Project site or staging area.	No Effect

TABLE BIO-1
SPECIAL-STATUS SPECIES WITH A POTENTIAL FOR OCCURRENCE NEAR THE PROJECT SITE

Scientific Name	Common Name	Status			Habitat Requirements	Likelihood of Occurrence in the Project Site	Proposed Project Environmental Consequences
		Federal	State	Other			
Coccyzus americanus	yellow-billed cuckoo	FT	SE	None	Uncommon to rare summer resident of valley foothill and desert riparian habitats in scattered locations in CA. Breeding populations known from the Colorado River, Sacramento and Owens valleys, along the South Fork of the Kern River (Kern Co.), along the Santa Ana River (Riverside Co.), and along the Amargosa River (Inyo & San Bernardino cos). They may also nest along San Luis Rey River (San Diego Co.). Nests in dense cover of deciduous trees and shrubs, especially willows, which usually abut a slow-moving watercourse, backwater or seep. Also utilizes adjacent orchards, especially walnuts, in the Central Valley (CWHR 2021). Nesting sites are of concern to CDFW (2021c).	**None.** No riparian vegetation present within the vicinity of the Project site or staging area.	No Effect
Elanus leucurus	white-tailed kite	None	None	FP	Rarely found away from agricultural areas. Inhabits herbaceous and open stages of many habitats. Substantial groves of dense, broad-leafed deciduous trees are used for nesting and roosting. Nest placed near top of dense oak, willow, or other tree stand located near open foraging area. Forages in open grasslands, meadows, farmlands, and emergent wetlands (CWHR 2021). Nesting sites are of concern to CDFW (2021c).	**None.** Although suitable nesting trees do occur along the Project site and in surrounding areas, construction would not occur within nesting season. This species has been recorded within 3 miles of the Project location.	No Effect
Laterallus jamaicensis corurniculus	California black rail	None	ST	FP	Year-long resident of saline, brackish, and fresh emergent wetlands in the San Francisco Bay area, Sacramento-San Joaquin Delta, coastal southern CA at Morro Bay and a few other locations, the Salton Sea, and the lower Colorado River area. Occurs most commonly in tidal emergent wetlands dominated by pickleweed, or in brackish marshes supporting bulrushes and pickleweed. Found in immediate vicinity of tidal sloughs. In freshwater habitat, usually found in bulrushes, cattails, and saltgrass. Nests are concealed in dense vegetation near upper limits of tidal flooding. Occasionally found away from wetlands in late summer and autumn. May overwinter in locations where it does not breed (CWHR 2021).	**None.** No suitable habitat.	No Effect

TABLE BIO-1
SPECIAL-STATUS SPECIES WITH A POTENTIAL FOR OCCURRENCE NEAR THE PROJECT SITE

Scientific Name	Common Name	Status			Habitat Requirements	Likelihood of Occurrence in the Project Site	Proposed Project Environmental Consequences
		Federal	State	Other			
Melospiza melodia	song sparrow ("Modesto" population)	None	None	CSC	A year-round resident that prefers emergent freshwater marshes dominated by tules and cattails as well as riparian willow thickets. Modesto song sparrows also nest in riparian forests of valley oak with sufficient understory of blackberry, along vegetated irrigation canals and levees, and in recently planted valley oak restoration sites. The Modesto song sparrow is restricted to CA, with established populations in the Sacramento Valley, Sacramento-San Joaquin River Delta, and northern San Joaquin Valley. The Modesto song sparrow thrives where extensive wetlands remain. Most abundant in the Butte Sink area of the Sacramento Valley and in the Sacramento-San Joaquin River Delta. Immediately adjacent to the Butte Sink, song sparrows breed in sparsely vegetated irrigation canals, although they are almost entirely absent from the main stem and tributaries of the Sacramento River above Sacramento (Shuford and Gardali 2008).	**None.** No suitable habitat, but there is a record less than 1 mile away – from 1915.	No Effect
Riparia riparia	bank swallow	None	ST	None	Found primarily west of California's deserts in riparian and other lowland habitats during the spring-fall period. In summer, restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine textured sandy soils, into which it digs nesting holes. Approximately 75% of the breeding population in CA occurs along banks of the Sacramento and Feather Rivers in the northern Central Valley. Other colonies are known from the central coast from Monterey to San Mateo cos., and in northeastern CA in Shasta, Siskiyou, Lassen, Plumas, and Modoc cos. Breeding colonies can have between 10 and 1,500, but typically between 100 and 200, nesting pairs (CWHR 2021). Nesting sites are of concern to CDFW (2021c).	**None.** No suitable nesting habitat. There is a nearby record 1.6 miles SW along Feather River.	No Effect
Vireo bellii pusillus	least Bell's vireo	FE	SE	None	Inhabits willow thickets and other dense riparian habitat below ± 2,000 ft. Known from canyons in San Benito and Monterey cos., coastal areas from Santa Barbara Co. south, and western edges of southern CA deserts. Usually found near water, including intermittent streams (CWHR 2021). Nesting sites are of concern to CDFW (2021c).	**None.** No suitable nesting habitat. There is a nearby record within 1 mile, from 1878. likely from along Feather River.	No Effect

TABLE BIO-1
SPECIAL-STATUS SPECIES WITH A POTENTIAL FOR OCCURRENCE NEAR THE PROJECT SITE

Scientific Name	Common Name	Status			Habitat Requirements	Likelihood of Occurrence in the Project Site	Proposed Project Environmental Consequences
		Federal	State	Other			
Mammals							
Anthrozous pallidus	pallid bat	None	None	CSC	Locally common at low elevations in a wide variety of habitats, including: grasslands, shrub lands, woodlands, and forests − from sea level up through mixed conifer forests. Most common in open, dry habitats with rocky areas for roosting. A yearlong resident in most of CA, feeding on a wide variety of insects and arachnids and foraging over open ground. Many prey items are taken on the ground. Roosts in crevices in rock outcrops, mines, caves, tree hollows, buildings, and bridges. Maternity colonies are formed around April and usually consist of 20 to 100 individuals (CWHR 2021).	**None:** While suitable foraging habitat occurs within the annual grassland and nesting habitat occurs within buildings and trees in the vicinity of the project alignment, no suitable nesting habitat occurs within the Project site.	No Effect

NOTES:

Federal:

BCC	Birds of Conservation Concern
FE	Listed as Endangered under the Federal Endangered Species Act
FT	Listed as Threatened under the Federal Endangered Species Act

State:

CSC	California Species of Special Concern
FP	Fully Protected
SE	Listed as Endangered under the California Endangered Species Act
ST	Listed as Threatened under the California Endangered Species
WL	Watch List

California Native Plant Society (CNPS):

1B	California Native Plant Society (CNPS) Ranking. Defined as plants that are rare, threatened or endangered in California and elsewhere.
2	CNPS Ranking. Defined as plants that are rare, threatened, or endangered in California, but more common elsewhere.
3	CNPS Ranking. Plants About Which We Need More Information - A Review List

Recent modifications to the CNPS Ranking System include the addition of a new Threat Code extension to listed species (e.g., List 1B.1, List 2.2 etc.). A Threat Code extension of .1 signifies that a species is seriously endangered in California; .2 is fairly endangered in California; and .3 is not very endangered in California.