DRAFT

Initial Study and Mitigated Negative Declaration

Campbell Gulch Diversion Reconstruction Project

Community of Camptonville, California

Lead Agency:

Camptonville Community Services District
P.O. BOX 327
Camptonville, CA 95922

Prepared by:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS
55 Hanover Lane, Suite A
Chico, California 95973

October 2023

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DRAFT MITIGATED NEGATIVE DECLARATION

Lead Agency: Camptonville Community Service District

Project Proponent: Camptonville Community Services District

Project Location: The Project Area is located in the Community of Camptonville on a Community-owned parcel of land and within the Campbell Gulch Creek and street right-of-way easements of the Project Site access road that includes:

- Diversion Structure Project component: Campbell Gulch
- Transmission Pipeline Project component: Campbell Gulch
- Access Road Project component: access road of Mountain House Road

The Project is located in the northern half of Section 1 of Township 18 North, Range 8 East, (Mount Diablo Principal Meridian). The approximate center of the Site is located at latitude 39.457617º and longitude -121.037712º.

Project Description: As the community's only reliable source of potable water, CWD has determined that the existing diversion infrastructure, originally built to collect surface water from Campbell Gulch, must be replaced with an improved system to ensure the CWD can continue providing an adequate water supply to its customers. The proposed improvements to the facility include: remove the existing diversion structure; construction of a new cast-in-place concrete spillway intake structure with screening to prevent the intake of vegetative growth, excess leafy debris, or ice; removal of an existing exposed conveyance pipeline within the creek bed approximately 650 feet downstream of the diversion; and installation of 60' linear feet of a 6" PVC conveyance pipeline at a minimum depth of 5 feet below the streambed of Campbell Gulch where the old pipeline is removed. The new pipeline will be installed by trenching through Campbell Gulch. Aggregate base rock and large rocks up to twelve inches in diameter will be imported to be used as fill material for the proposed diversion structure, access road, and stream channels.

Prior to the in-stream construction activities at the diversion structure and pipeline replacement locations, Campbell Gulch flows must be diverted upstream from the Project area via a temporary coffer dam and pipeline diversion system and then released downstream from the Project area. The use of a small pump (1-2hp) may be required to aid the dewatering where the water supply conveyance pipe crosses Campbell Gulch.

In addition, CWD proposes improvements to the site access road to provide a safe, reliable route to the new diversion structure. Prior to the installation of the new diversion structure and transmission pipeline, regrading and shaping of the surrounding terrain are required to prepare

the site for the placement of materials and to provide suitable construction access. Clearing and grubbing of trees, fallen wood, and debris are required to ensure the workers have a safe working environment, free of hazardous conditions.
The Project Site consists of three locations: the diversion structure study area (Figure 2), the transmission pipeline replacement study area (Figure 3) and the staging area study area (Figure 4), resulting in a total potential disturbance area of approximately 1.86-acre.

Public Review Period: To Be Determined

Mitigation Measures Incorporated into the Project to Avoid Significant Effects:

Biological Resources

BIO-1: Special Status Plants.

- Perform focused plant surveys of the Project site according to CDFW, California Native Plant Society (CNPS), and USFWS protocols prior to construction (California Department of Fish and Game 2009; CNPS 2001, USFWS 1996). Surveys shall be conducted by a qualified biologist according to the blooming period for target species and timed according to the appropriate phenological stage for identifying target species. Known reference populations will be visited and/or local herbaria records should be reviewed, if available, prior to surveys to confirm the phenological stage of the target species. If no special-status plants are found within the Project site, no further measures pertaining to special-status plants are necessary.
- If special-status plants are identified within 25-feet of the Project site, implement the following measures:

  The Project will avoid occurrences of special-status plant species by establishing and clearly demarcating avoidance zones around the plant occurrences prior to construction. Avoidance zones should include the extent of the special-status plants plus a minimum 25-foot buffer, unless otherwise determined by a qualified biologist, and should be maintained until the completion of construction. Additional measures such as seed collection and/or transplantation may be developed in consultation with CDFW and the CEQA Lead Agency if special-status plant species are found within the Project site and avoidance of the species is not possible.

Timing/Implementation: *Prior to and during construction activities*

Monitoring/Enforcement: *Camptonville Community Services District*

BIO-2: Foothill Yellow-Legged Frog (Northeast/Northern Sierra Clade).

Northeast/Northern Sierra clade of FYLF has the potential to occur within the riparian corridor of Campbell Gulch within the mixed coniferous forest habitat of the Study Area. Implementation of the following measure would avoid or minimize impacts to FYLF:

- A qualified biologist shall conduct a preconstruction survey for all life stages of foothill yellow-legged frog between April 1 – September 30 within five days prior to ground or vegetation disturbance within 50-feet of Campbell Gulch. The preconstruction survey will be conducted after 10:00 am. The preconstruction survey will not be conducted during inclement weather (rainstorms or unseasonably cold weather). A preconstruction survey report will be prepared including methods, results, and recommendations sections. If foothill yellow-legged frog is not observed, then no further action is required.
- If foothill yellow-legged frog at any life stage is observed during the preconstruction survey or during the course of construction, then a Foothill Yellow-Legged Frog Capture and Relocation Plan will be prepared and submitted to CDFW for approval. CDFW approval of the Capture and Relocation Plan and relocation activities will occur prior to initiation of Project activities within 50 feet of Campbell Gulch. The Capture and Relocation Plan will include equipment decontamination methods, capture and relocation methods, and details of the location where individuals will be relocated to.
- If foothill yellow-legged frog at any life stage is observed during the preconstruction survey or during the course of construction, then Project activities will be immediately halted within 100 feet of the observation, individuals will be allowed to leave on their own volition, and CDFW will be consulted. Project activities will resume once written authorization has been obtained from CDFW. The Project will either develop avoidance and minimization measures in coordination with CDFW or obtain an Incidental Take Permit from CDFW to document compliance with the California ESA.

Timing/Implementation: *Prior to and during construction activities*

Monitoring/Enforcement: *Camptonville Community Services District*

BIO-3: California Spotted Owl.

California spotted owl has the potential to occur within the Study Area and there is one CNDDB occurrence of California spotted owl within 0.25 miles of the Study Area. If nesting California spotted owl are present within 0.25 miles of the Project, the Project could result in harassment to nesting individuals. In order to avoid impacts to California spotted owl, the following avoidance and minimization measures are recommended:

- Project activities shall be conducted October through February, outside of the California spotted owl nesting season. The California spotted owl nesting season is March through September.
- If Project activities are to occur during the California spotted owl nesting season, then "Disturbance-Only Project" surveys according to the USFWS 2012 northern spotted owl survey protocol shall be conducted by a qualified biologist (USFWS 2012). "Disturbance-

Only Project" surveys include a one-year six visit survey that covers all spotted owl habitat within 0.25 mile from the Project area.

- Alternative to conducting the protocol surveys, the lead agency may conduct an informal consultation with the USFWS to seek recommendations for what California spotted owl avoidance and minimization measures would be appropriate for the Project.

Timing/Implementation: *Prior to and during construction activities*

Monitoring/Enforcement: *Camptonville Community Services District*

BIO-4: Great Gray Owl.

Great gray owl has a low potential to occur within the Study Area. The following measures are recommended to avoid and minimize potential impacts to great gray owl:

- Project activities shall be conducted between June 15 and March 15th, outside of the great gray owl nesting season. The great gray nesting season is late March to mid-June.
- If Project activities are to occur during the great gray nesting season (March 15 to June 15), then preconstruction surveys shall be conducted according to the May 2000 Survey Protocol for the Great Gray Owl in the Sierra Nevada of California (Beck and Winter 2000).
- Alternative to conducting the protocol surveys, the lead agency may consult with CDFW to seek recommendations for what great gray owl avoidance and minimization measures would be appropriate for the Project.

Timing/Implementation: *Prior to and during construction activities*

Monitoring/Enforcement: *Camptonville Community Services District*

BIO-5: Nesting Birds and Raptors.

Cooper's hawk, olive-sided flycatcher, oak titmouse, evening grosbeak, yellow warbler, and black-throated gray warbler as well as common species of birds and raptors have the potential to nest within the Study Area. The following measure is recommended to avoid or minimize potential impacts to nesting birds and raptors protected by MBTA and California Fish and Game Code:

- Project activities shall be conducted October through January, outside of the typical bird nesting season (generally February 1 through September 30).
- If Project activities are to occur during the nesting season (generally February 1 through September 30), conduct a preconstruction nesting bird survey of all suitable nesting habitat within 14 days of the commencement of Project activities in a given area of Project activities. The survey shall be conducted within a 500-foot radius of Project work areas for raptors and within a 100-foot radius for other nesting birds. If any active nests are observed, these nests shall be designated a sensitive area and protected by a no-disturbance buffer established by a qualified biologist until a qualified biologist has

determined that the young have fledged and are no longer reliant upon the nest or parental care for survival. A Preconstruction Nesting Bird Survey Report will be prepared by a qualified biologist that includes surveyors' names and affiliation, dates and times of surveys, methods, results, and recommendations. If there is a lapse in Project activities of 15 days or longer for areas that have been surveyed, then additional nesting bird survey(s) will be conducted.

Timing/Implementation: *Prior to and during construction activities*

Monitoring/Enforcement: *Camptonville Community Services District*

BIO-6: Waters of the U.S./State

Impacts to Campbell Gulch from diversion structure repairs are proposed. To minimize the proposed impacts to potentially jurisdictional Waters of the U.S./State, the following measures are recommended:

- Obtain verification of Waters of the U.S./State from the USACE and/or Waters of the State from the Central Valley RWQCB.
- A permit authorization under Section 404 of the federal CWA (Section 404 Permit) must be obtained from USACE prior to discharging any dredged or fill materials into any Waters of the U.S. Final AMMs will be developed as part of the Section 404 Permit process to ensure no-net-loss of wetland function and values.
- A permit authorization from the Central Valley RWQCB pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Act must be obtained prior to the discharge of material in an area that could affect Waters of the U.S./State. Mitigation requirements for discharge to Waters of the U.S./State will be developed in consultation with the Central Valley RWQCB.
- A Streambed Alteration Agreement (SAA) from CDFW pursuant to Section 1602 of the California Fish and Game Code must be obtained for impacts to features (e.g., the bed, channel, or bank of any river, stream, or lake) that may be subject to Section 1600 of the Fish and Game Code. The construction contractor shall adhere to all conditions outlined in Section 1602 SAA.

Timing/Implementation: *Prior to and during construction activities*

Monitoring/Enforcement: *Camptonville Community Services District*

Cultural Resources

CUL-1: If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as

appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead agencies. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines or a historic property under Section 106 NHPA, if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either:

    1. is not a Historical Resource under CEQA or a Historic Property under Section 106; or that

    2. the treatment measures have been completed to their satisfaction.

If the find includes human remains, or remains that are potentially human, they shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Sutter County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 will be implemented. If the coroner determines the remains are Native American and not the result of a crime scene, the coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the Project (Section 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (Section 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

Timing/Implementation: *During construction*

Monitoring/Enforcement: *Camptonville Community Services District*

Geology and Soils

GEO-1: If paleontological or other geologically sensitive resources are identified during any phase of project development, the construction manager shall cease operation at the site of the discovery and immediately notify CCSD. CCSD shall retain a qualified paleontologist to provide an evaluation of the find and to prescribe mitigation measures to reduce impacts to a less-than-significant level. In considering any suggested mitigation proposed by the consulting paleontologist, CCSD shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for paleontological resources is carried out.

Timing/Implementation: *During construction*

Monitoring/Enforcement: *Camptonville Community Services District*

Noise

NOI-1: The following measures shall be applied to the Project during construction:

1. All construction equipment, fixed or mobile, will be equipped with properly operating and maintained mufflers, consistent with manufacturer standards.
2. All stationary construction equipment will be placed so that emitted noise is directed away from the noise sensitive receptors near the Project Area (the residences to the east and west of the site).
3. As applicable, shut off all equipment when not in use.
4. Equipment staging shall be located in areas that create the greatest distance between construction-related noise/vibration sources and sensitive receptors to the east and west of the site.
5. Jackhammers, pneumatic equipment, and all other portable stationary noise sources will be directed away from the residences to the east and west of the site to the extent possible. Either one-inch plywood or sound blankets can be utilized for this purpose. They should reach up from the ground and block the line of sight between equipment and the nearest off-site residences. The shielding should be without holes and cracks.
6. No amplified music and/or voice will be allowed on the construction site.

Timing/Implementation: *During construction*

Monitoring/Enforcement: *Camptonville Community Services District*

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Description
AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
AMSL	Above Mean Sea Level
ANSI	American National Standards Institute
APE	Area of Potential Effect
ARD	Aquatic Resources Delineation
BCC	Bird of Conservation Concern
BEN|EN	Bennett Engineering Services
BLM	Bureau of Land Management
BMPs	Best Management Practices
BP	Before Present
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
CalRecycle	California Department of Resources and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	California Code of Regulations
CCSD	Camptonville Community Service District
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations

Term	Description
CGS	California Geological Survey
CH_4	Methane
CNEL	Community Noise Equivalent Level
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	carbon dioxide equivalent
CRHR	California Register of Historic Resources
CRPR	California Rare Plant Rank
CT	California Endangered Species Act listed, Threatened
CWA	Clean Water Act
CWD	Camptonville Water District
DMR	Division of Mine Reclamation
DOC	Department of Conservation
DOF	California Department of Finance
DPM	Diesel Particulate Matter
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FPT	Formally Proposed for Federal Endangered Species Act as Threatened
FRAQMD	Feather River Air Quality Management District
FTA	Federal Transit Administration
FYLF	Foothill Yellow-Legged Frog
GHG	Greenhouse Gas
GLO	General Land Office
gpm	Gallons Per Minute
HMP	Hazardous Materials Business Plan
IS	Initial Study
MBTA	Migratory Bird Treaty Act
MDD	Maximum Daily Demand
MLD	Most Likely Descendent
MND	Mitigated Negative Declaration
MOA	Memorandum of Agreement
MRZ	Mineral Resource Zone
N_2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NIOSH	National Institute for Occupational Safety and Health
NOI	Notice of Intent
NO_x	Nitric Oxide
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places

Term	Description
NSVAB	Northern Sacramento Valley Air Basin
NWI	National Wetland Inventory
OHWM	Ordinary High-Water Mark
PG&E	Pacific Gas & Electric Company
PGA	Peak Ground Acceleration
PM_{10}	Particulate matter with a diameter of 10 microns or less
$PM_{2.5}$	Particulate matter with a diameter of 2.5 microns or less
PPV	Peak Particle Velocity
PRC	Public Resource Code
PVC	Polyvinyl Chloride
RCNM	Roadway Noise Construction Model
ROG	Reactive Organic Gases
ROW	Right of Way
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SR	State Route
SSC	Species of Special Concern
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TCRs	Tribal Cultural Resources
UCMP	University of California Museum of Paleontology
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VMT	Vehicle Mile Traveled
YCSD	Yuba County Sheriff's Department
YCWA	Yuba County Water Agency
YSRWMA	Yuba-Sutter Regional Waste Management Authority

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1.0 BACKGROUND

1.1 Summary

Project Title:	Camptonville Community Services District (CCSD) Campbell Gulch Diversion Structure Reconstruction Project
Lead Agency Name and Address:	Camptonville Community Services District 15333 Cleveland Avenue Camptonville, California 95922
Contact Person and Phone Number:	Richard DicKard, Board Member (530) 288-3479
Project Owner:	Camptonville Community Services District
Project Location:	▪ The diversion structure and its access road are located on District property. The transmission pipe crossing is located on private property and the District has an existing easement for access, maintenance, and repairs. The Project is located in the northern half of Section 01, Township 18 North, and Range 08 East (Mount Diablo Base and Meridian) (Figure 1). The approximate center of the Site is located at latitude 39.457617° and longitude -121.037712°.
General Plan Designation:	Natural Resources
Zoning:	Agricultural/Residential District 20 Acres (AG-20)

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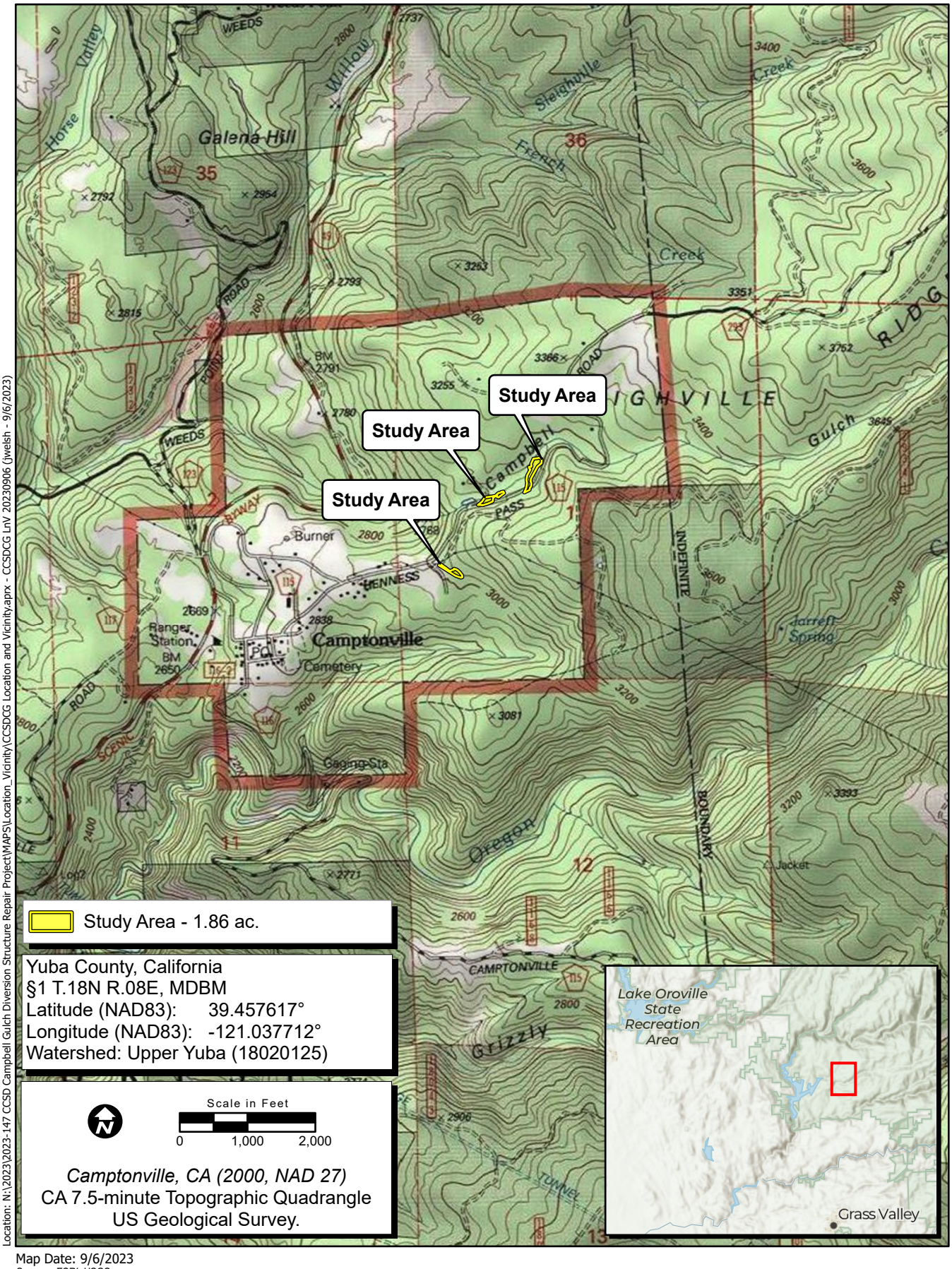

Location: N:\2023\2023-147 CCSD Campbell Gulch Diversion Structure Repair Project\MAPS\Location_Vicinity\CCSDCG Location and Vicinity.aprx - CCSDCG LnV 20230906 (jwelsh - 9/6/2023)

Map Date: 9/6/2023
Sources: ESRI, USGS

Figure 1. Regional Location and Vicinity

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2023-147 CCSD Campbell Gulch Diversion Structure Repair Project

1.2 Introduction

The CCSD is the Lead Agency for this Initial Study (IS). ECORP prepared the IS to identify and assess the anticipated environmental impacts of the CCSD Campbell Gulch Diversion Reconstruction Project (Project or Proposed Project). This document has been prepared to satisfy the California Environmental Quality Act (CEQA) (Public Resource Code [PRC], Section 21000 et seq.) and state CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. A CEQA IS is generally used to determine which CEQA document is appropriate for a Project (Negative Declaration, Mitigated Negative Declaration [MND], or Environmental Impact Report [EIR]).

1.3 Lead Agency

The lead agency is the public agency with primary responsibility over a proposed project. Where two or more public agencies will be involved with a project, CEQA Guidelines Section 15051 provides criteria for identifying the lead agency. In accordance with CEQA Guidelines Section 15051(b)(1), "the lead agency will normally be the agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose." Based on the criteria above, the Community Services District is the lead agency for the Proposed Project.

1.4 Purpose and Document Organization

The purpose of this IS is to evaluate the potential environmental impacts of the Proposed Project. This document is divided into the following sections:

- **1.0 Introduction** – This section provides an introduction and describes the purpose and organization of the document. This section provides general information regarding the Project, including the Project title, lead agency and address, contact person, brief description of the Project location, General Plan land use designation, zoning district, identification of surrounding land uses.
- **2.0 Project Description** – This section provides a detailed description of the proposed Project, as well as the identification of other public agencies whose review, approval, and/or permits may be required. Also listed in this section is a checklist of the environmental factors that are potentially affected by the Project.
- **3.0 Environmental Factors Potentially Affected and Determinations** – This section is a summary of the environmental topic areas that were found to potentially impact the environment.
- **4.0 Environmental Checklist and Discussion** – This section describes the environmental setting and overview for each of the environmental subject areas, evaluates a range of impacts classified as "no impact," "less than significant impact," "less than significant impact with mitigation incorporated," and "potentially significant impact" in response to the environmental checklist.
- **5.0 List of Preparers** – This section lists the names of documents preparers.

- **6.0 Bibliography** – This section identifies documents, websites, people, and other sources consulted during the preparation of this Initial Study.
- **7.0 List of Appendices** – This section provides a list of document appendices.

1.5 Project Location and Surrounding Land Uses

The Project Site is located in the unincorporated community of Camptonville, CA in Yuba County (County). The community boundaries cover approximately 550 acres (approximately 0.86 square miles). The diversion structure and its access road are located on District property located north of and adjacent to Mountain House Road, approximately 680 feet northeast of the intersection of Mountain House Road and Mackey Lane, just outside of the limits of the community. The transmission pipe crossing is located on private property and the District has an existing easement for access, maintenance, and repairs. Adjacent uses include rural single-family homes scattered throughout the heavily-wooded forestland, with Tahoe National Forest surrounding the entirety of the community of Camptonville and the Project Site.

1.6 Environmental Setting

The unincorporated community of Camptonville and the Project Site are located in the northeastern portion of Yuba County, east of the Bullard's Bar Reservoir, nestled within the Sierra Nevada mountains (Figure 1). Nevada City is approximately 13.5 miles south of Camptonville and Oroville is approximately 28 miles west of the community and the Project Site. Other nearby communities include Weeds Point, Oak Valley, North San Juan, Greenville, and Goodyears Bar. Bullard's Bar Reservoir's northeastern shoreline is located approximately 2.25 miles to the west of the Project Site. The community of Camptonville is surrounded by forest lands and the Tahoe National Forest in Yuba County, with some rural-scale residences among this predominantly forest landscape. The land is predominately sloping mountain terrain with steep ravines and valleys throughout.

Camptonville is a relatively small mountain community located at approximately 2,860 feet above sea level, with an estimated 2020 population of 158 (City Population 2023). The Project Site is located on the eastern edge of the community, approximately 670 feet northeast of the Mountain House Road and Mackey Lane intersection. Surrounding uses include single-family rural residences, a vineyard at the southern end of Mackey Lane, and Tahoe National Forest land to the east (Figure 1).

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2.0 PROJECT DESCRIPTION

2.1 Project Background

The Camptonville Water District (CWD) is a subsidiary agency of the CCSD and is tasked with providing potable water to approximately 180 residents of the Town of Camptonville. The CWD's two groundwater wells, Well A and Well B, suffer from water quality and supply issues respectively and are therefore unable to meet the community's supply or drought-induced backup supply needs. As a result, in 1990, the CWD constructed the Campbell Gulch Diversion Structure (CGDS), approximately 0.5-mile northeast of the CCSD's water treatment plant, to collect surface water from the perennial creek flow of Campbell Gulch, to meet the CWD's MDD Maximum Daily Demand (MDD) for the Town of Camptonville.

Currently, this diversion structure is in a dangerously deteriorated state. High winter flows of Campbell Gulch have resulted in damaging overflow conditions at the facility, including the erosion of a portion of the existing diversion structure's foundation, areas of the creek's banks upstream from the diversion structure, and the steep and windy access road that does not fully extend to the existing diversion structure.

As the community's only reliable source of potable water, CWD has determined that the existing diversion infrastructure must be replaced with an improved system to ensure the CWD can continue providing an adequate water supply to its customers. The proposed improvements to the facility include: remove the existing diversion structure; construction of a new cast-in-place concrete spillway intake structure with screening to prevent the intake of vegetative growth, excess leafy debris, or ice; removal of an existing exposed conveyance pipeline within the creek bed approximately 650 feet downstream of the diversion; and installation of 60' linear feet of a 6" PVC conveyance pipeline at a minimum depth of 5 feet below the streambed of Campbell Gulch where the old pipeline is removed. The new pipeline will be installed by trenching through Campbell Gulch. Aggregate base rock and large rocks up to twelve inches in diameter will be imported to be used as fill material for the proposed diversion structure, access road, and stream channels. (see Figures, 5, 6 and 7).

Prior to the in-stream construction activities at the diversion structure and pipeline replacement locations, Campbell Gulch flows must be diverted upstream from the Project area via a temporary coffer dam and pipeline diversion system and then released downstream from the Project area. The use of a small pump (1-2hp) may be required to aid the dewatering where the water supply conveyance pipe crosses Campbell Gulch. At the diversion structure, the temporary water diversion can be accomplished via gravity flow. The contractor would be required to submit a dewatering plan for approval prior to the commencement of construction.

In addition, CWD proposes improvements to the site access road to provide a safe, reliable route to the new diversion structure. Prior to the installation of the new diversion structure and transmission pipeline, regrading and shaping of the surrounding terrain are required to prepare the site for the placement of materials and to provide suitable construction access. Clearing and grubbing of trees, fallen wood, and debris are required to ensure the workers have a safe working environment, free of hazardous conditions.

The Project Site consists of three locations: the diversion structure study area (Figure 2), the transmission pipeline replacement study area (Figure 3) and the staging area study area (Figure 4), resulting in a total potential disturbance area of approximately 1.86-acre.

Map Contents

Study Area - 1.86 ac.

Reference Coordinate

Sample Point

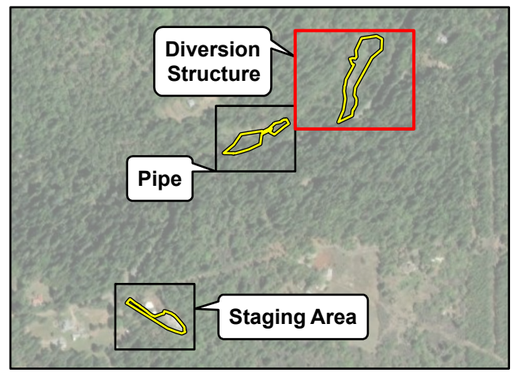
OHWM

Aquatic Resource Type

Creek - 0.106 ac.

Photo Source: Maxar (2021)
Boundary Source: Bennett Engineering & ECORP
Delineator(s): Dan Machek
Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet

Subject to U.S. Army Corps of Engineers verification. This exhibit depicts information and data produced in accord with the wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 as well as the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program as amended on February 10, 2016, and conforms to Sacramento District specifications. However, feature boundaries have not been legally surveyed and may be subject to minor adjustments if more accurate locations are required.
The acreage value for each feature has been rounded to the nearest 1/1000 decimal. Summation of these values may not equal the total potential Waters of the U.S. acreage reported.



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Map Date: 9/6/2023

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Scale in Feet
0 20 40

Figure 2. Diversion Structure Study Area

2023-147 CCSD Campbell Gulch Diversion Structure Repair Project

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Map Contents

- Study Area - 1.86 ac.
- Reference Coordinate

Sample Point

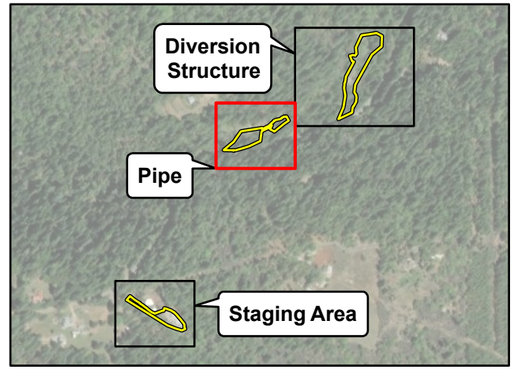
- OHWM

Aquatic Resource Type

- Creek - 0.106 ac.

Photo Source: Maxar (2021)
Boundary Source: Bennett Engineering & ECORP
Delineator(s): Dan Machek
Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet

Subject to U.S. Army Corps of Engineers verification. This exhibit depicts information and data produced in accord with the wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 as well as the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program as amended on February 10, 2016, and conforms to Sacramento District specifications. However, feature boundaries have not been legally surveyed and may be subject to minor adjustments if more accurate locations are required.
The acreage value for each feature has been rounded to the nearest 1/1000 decimal. Summation of these values may not equal the total potential Waters of the U.S. acreage reported.



Location: N:\2023\2023-147 CCSD Campbell Gulch Diversion Structure Repair Project\MAPS\Aquatic_Resources\CCSDCG Aquatic Resources.aprx - CCSDCG ARD 20230901 (jwelsh - 9/6/2023)

Map Date: 9/6/2023

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 20 40

Figure 3. Transmission Pipeline Study Area

2023-147 CCSD Campbell Gulch Diversion Structure Repair Project

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Map Contents

- Study Area - 1.86 ac.
- Reference Coordinate

Photo Source: Maxar (2021)
Boundary Source: Bennett Engineering & ECORP
Delineator(s): Dan Machek
Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet

Subject to U.S. Army Corps of Engineers verification. This exhibit depicts information and data produced in accord with the wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 as well as the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program as amended on February 10, 2016, and conforms to Sacramento District specifications. However, feature boundaries have not been legally surveyed and may be subject to minor adjustments if more accurate locations are required.
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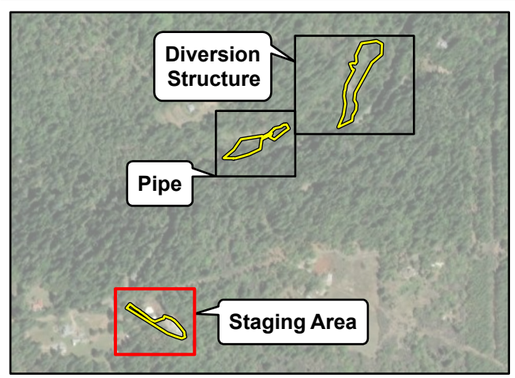

Location: N:\2023\2023-147 CCSD Campbell Gulch Diversion Structure Repair Project\MAPS\Aquatic_Resources\CCSDCG Aquatic Resources.aprx - CCSDCG ARD 20230901 (jwelsh - 9/6/2023)

Map Date: 9/6/2023

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 20 40

Figure 4. Staging Area Study Area

2023-147 CCSD Campbell Gulch Diversion Structure Repair Project

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2.2 Employees and Construction

On average, there will be approximately 5 employees at the Project Site during construction. Construction is anticipated to start in May 2024 and take approximately 3 months to complete. To prepare the project site and access road, approximately one week of clearing and grubbing with an excavator, operator, and a sawyer to remove the damaged infrastructure and debris is required. The intake piping earthwork and diversion structure replacement will require an excavator and loader for up to 3 weeks; 5 days for placing rebar and forms; 2 days with a concrete mixing truck for the pouring of the concrete diversion structure; one week to place fill material, erosion control, fencing, and other appurtenances to stabilize the site once the diversion structure is constructed. Access road work is estimated to require an excavator and loader for up to 12 days, and a compactor for two days. At the completion of this infrastructure improvement project, it is anticipated that the restoration of the access road, partially improved by a past project, will be completed.

2.3 Regulatory Requirements, Permits, and Approvals

The following Proposed Project requires the following approvals and regulatory permits for implementation.

2.3.1 Lead Agency Approval

The CCSD is the lead agency for the Proposed Project. In order to approve the Project, the CCSD must first adopt the IS/MND, approve the Project, and file a Notice of Determination within 5 working days. The Board will consider the information contained in the IS/MND in making its decision to approve or deny the Project. The IS/MND is intended to disclose to the public the Project's details, analyses of the Proposed Project's potential environment impacts, and identification of feasible mitigation that will reduce potentially significant impacts to less than significant levels.

In addition to the above Camptonville Community Service District actions, the Project may require approvals, permits, and entitlements from other public agencies for which this Initial Study may be used, including, without limitation, the following (Table 2.1):

- California Department of Fish and Wildlife (CDFW), Region 2
- California Regional Water Quality Control Board (RWQCB), Region 5
- Feather River Air Quality Management District (FRAQMD)
- United States Army Corp of Engineers
- National Marine Fisheries Service
- Yuba County Community Development Department

2.4 Consultation with California Native American Tribe(s)

Assembly Bill (AB) 52 requires that prior to the release of a CEQA document for a project, an agency begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if:

1. the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and

2. the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation. The CCSD has not received any consultation requests from a Native American tribe. Further information on potential Tribal Cultural Resources in the Project area is provided in Section 4.18 of this Initial Study.

3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED AND DETERMINATION

3.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by the Project, involving at least one impact that is a *Potentially Significant Impact,* as indicated by the checklist on the following pages.

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

Determination

On the basis of this initial evaluation:

I find that the Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	☐
I find that although the 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 Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	☐
I find that the 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 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 Project, nothing further is required.	☐

Richard DicKard
Board Member

Date

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4.0 ENVIRONMENTAL CHECKLIST AND DISCUSSION

4.1 Aesthetics

4.1.1 Environmental Setting

The Proposed Project is located in the northeastern portion of Yuba County in the community of Camptonville. Camptonville is in the Sierra Nevada foothills, situated between State Route (SR) 49 to the west, with New Bullards Bar Reservoir beyond; the Yuba-Sierra County boundary to the east, with the Sierra Nevada Mountains and rural areas of Sierra County beyond; the North Fork of the Yuba River to the north, and unincorporated rural areas of Yuba County to the south. The land surrounding the Project is predominately sloping mountainous and foothill terrain, ranging in elevation from approximately 3,105 to 3,140 feet Above Mean Sea Level (AMSL).

4.1.1.1 State Scenic Highways

The California Scenic Highway Program protects and enhances the scenic beauty of California's highways and adjacent corridors. A highway can be designated as scenic based on how much natural beauty can be seen by users of the highway, the quality of the scenic landscape, and if development impacts the enjoyment of the view (California Department of Transportation [Caltrans] 2023). The Project site is approximately 2,200 feet west of SR 49. Although SR 49 is eligible for the California Scenic Highway Program, according to the Final 2030 Yuba County 3020 General Plan Environmental Impact Report (AECOM 2011) there are no officially designated State Scenic Highways in Yuba County. In addition, SR 49 is not in the viewshed of this Project due to the mountainous terrain and dense forest surrounding the Project Site.

4.1.1.2 Visual Character of the Project Site

The Project includes the demolition and replacement of an existing creek diversion structure; replacement of approximately 20 feet of exposed water conveyance pipeline with new pipeline buried beneath the Campbell Gulch; and safety improvements to the Project access road. Visual character of the Site varies between Western Sierra foothill oak-pine woodland and riparian forest. As the Project would involve the demolition of the existing diversion structure and transmission pipeline within and around the Campbell Gulch with an improved replacement diversion structure and buried pipeline, the Project improves the visual character of the Project Vicinity.

4.1.2 Lighting

Individuals have a range of reactions to the perceived effects of lighting on the environment. As such, whether light is obtrusive is generally based on perception, but is also a function of the actual amount of light emitted from a source. The following are examples of light levels, expressed in foot-candles (fc):[1]

Direct sunlight - 10,000	Covered parking lot - 5
Full daylight - 1,000	Gas station canopy - 12.5
Twilight - 1	Department store - 40
Full moon - 0.1	Grocery store – 50

Typical nighttime street lighting requirements are 1 to 3 fc, which is generally considered to be unobtrusive. A typical example of glare effects is the car headlight. Vision is impaired when viewed directly in front of a vehicle with the headlights on full beam, resulting in disabling glare. However, when viewed from the side, the same headlights would not impair vision.

4.1.2.1 Spill Light

Spill light or light trespass is the light that illuminates surfaces beyond the property line. Typically, spill lighting is from a more horizontal source such as streetlights and way-finding/security lighting than sky glow, which emanates from a more vertical source into the atmosphere. Spill light can be accurately calculated, and the effects of spill light can be measured for general understanding and comparison. However, light that is considered to be obtrusive is debatable. A spill light impact is generally considered significant if the increase in spill lighting would exceed 1 foot-candle at the property line of the nearest sensitive receptor, sky glow is perceptibly increased, or glare is at a level such that it impairs vision.

4.1.2.2 Sky Glow

Sky glow is the light that illuminates the sky above the horizon and reflects off moisture and other tiny atmospheric particles. Sky glow would be considered a significant impact if it were a permanent addition to the environment. Control features are available on the light sources to reduce sky glow and glare from nighttime lighting. These control features direct light downward, thereby reducing the spill of light that causes sky glow and reducing glare.

4.1.2.3 Glare

Glare can be described as direct or reflected light, which can then result in discomfort or disability. A well-designed lighting system controls light to provide maximum useful on-field illumination with minimal destructive offsite glare.

[1] Foot-candle (fc): A unit of measure of the intensity of light falling on a surface, equal to one lumen per square foot and originally defined with reference to a standardized candle burning at one foot from a given surface. One fc = 0.01609696 watts. Source: Engineering Toolbox, n.d.

4.1.3 Aesthetics (I) Environmental Checklist and Discussion

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐

No Impact.

The Yuba County 2030 General Plan identifies visual resources in the mountainous regions of the County to include ridgelines, mountain valleys, reservoirs and other waterbodies, and forest. The majority of the County's policies pertain to development projects with regards to the protection of scenic vistas. However, Policy NR9.7 aims to protect scenic resources by directing new construction projects to be designed in a manner to avoid excessive cut and fil by following the natural contour of the subject site. The Proposed Project consists of excavation activities (minor in nature) within the banks of the Campbell Gulch. Adhering to the County's General Plan policies and best management practices associated with streambed alterations would ensure the Project's impacts to the surrounding scenic forest vistas are negligible. As such, the Project would have a less than significant impact on a scenic vista.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒

No Impact.

The Proposed Project is not located within the vicinity of an officially designated scenic highway. No impact would occur.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

All Project construction work would be located within the Campbell Gulch ravine, downhill and out of view from any public viewpoint along the road in closest proximity, Mountain House Road. Therefore, the Project would have no impact in this area.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Would the Project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

No Impact.

The Project includes the demolition and replacement of a diversion structure, water supply pipeline segments and safety improvements to the Project site access road. The Project activities do not include new sources of light or glare. The Project would have no impact in this area.

4.1.4 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.2 Agriculture and Forestry Resources

4.2.1 Environmental Setting

The California Department of Conservation (DOC) manages the Farmland Mapping and Monitoring Program, which identifies and maps significant farmland. Farmland is classified using a system of five categories including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land. The classification of farmland as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance is based on the suitability of soils for agricultural production, as determined by a soil survey conducted by the Natural Resources Conservation Service (NRCS). The DOC manages the interactive California Important Farmland Finder website (DOC 2023a), which identifies the Project Site as being within an area of Urban and Built-Up Land and Other Land.

This site is not identified as being under a Williamson Act contract and there are no farming activities on the Site as the Project area is located within a creek surrounded by forested areas identified as Other Land.

4.2.2 Agriculture and Forestry Resources (II) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

The DOC identifies the Project Site as Other Land. As such, the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland). The Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

No Impact.

This Site is not subject to a Williamson Act contract. There are no Williamson Act contract lands within the vicinity of the Project Site. The Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
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))?	☐	☐	☐	☒

No Impact.

The Project Site is designated Natural Resources in the 2030 Yuba County General Plan (Yuba County 2011) and zoned Agricultural/Residential District 20 Acres (AG-20). Although the Site is not zoned forest land, timberland, or Timberland Production, the Natural Resources designation in the General Plan Land Use Diagram is further defined as Forest Land in the Natural Resources Element of the General Plan.

However, as the nature of the Proposed Project includes demolition and replacement of an existing diversion structure, water transmission pipeline, and access road safety improvements, the Project would not conflict with the existing zoning or cause for rezoning of the land. Therefore, there would be no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

Less Than Significant Impact.

As discussed in impact c) above, the Project consists of minor work on an existing creek diversion structure and associated features that would not result in the loss of, or conversion of forest land to non-forest land. Therefore, the Project would have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

Less Than Significant Impact.

The Project Site is identified as Urban and Built-Up Land and Other Land by the DOC. As discussed in impact c) the Project is the replacement of existing water diversion facilities and would not extend to those areas under existing agricultural use or forest land within the Project vicinity. The Project would have a less than significant impact in this area.

4.2.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.3 Air Quality

This assessment was prepared using methods and assumptions recommended in the rules and regulations of the Feather River Air Quality Management District (FRAQMD). Regional and local existing conditions are presented, along with pertinent pollutant emissions standards and regulations. The purpose of this assessment is to estimate criteria air pollutants attributable to the Project and determine the level of impact the Project would have on the environment.

4.3.1 Environmental Setting

The Project Area is located in unincorporated Yuba County, near the community of Camptonville, California. The California Air Resources Board (CARB) divides the state into air basins that share similar meteorological and topographical features. The Proposed Project is located in the Northern Sacramento Valley Air Basin (NSVAB), which includes the counties of Butte, Colusa, Glenn, Shasta, Sutter, Tehama, and Yuba. The air basin is relatively flat, bordered by mountains to the east, west, and north and by the San Joaquin Valley to the south. Hot, dry summers and mild, rainy winters characterize the Mediterranean climate of the Sacramento Valley. Because the valley is a bowl-like shape, this can trap pollutants and a temperature inversion layer can create unhealthy pollution concentrations.

Both the U.S. Environmental Protection Agency (USEPA) and CARB have established ambient air quality standards for common pollutants. These ambient air quality standards establish safe levels of contaminants that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called criteria pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are ozone (O_3), carbon monoxide (CO), particulate matter (PM), oxides of nitrogen (NO_x), sulfur dioxide (SO_2), and lead. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas.

The air quality regulating authority in Yuba County is FRAQMD. The agency's primary responsibility is ensuring that the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are attained and maintained in the Yuba and Sutter Counties, within the NSVAB. The unique mountain-encompassed geography with its potential for trapped pollutants underscores the importance of the FRAQMD regulating air pollution. The attainment status for the Yuba County portion of the NSVAB, which encompasses the Project Area, is included in Table 4.3-1.

Table 4.3-1. Attainment Status of Criteria Pollutants in the Yuba County Portion of the NSVAB

Pollutant	State Designation	Federal Designation
O_3	Nonattainment	Unclassified/Attainment
PM^{10}	Nonattainment	Unclassified
$PM^{2.5}$	Nonattainment	Unclassified/Attainment
CO	Unclassified	Unclassified/Attainment
NO_2	Attainment	Unclassified/Attainment
SO_2	Attainment	Unclassified/Attainment

Note: CO = Carbon Monoxide; NO_2 = Nitrous Oxide; NSVAB = Northern Sacramento Valley Air Basin; O_3 = Ozone; $PM_{2.5}$ = Coarse Particulate Matter; PM_{10} = Fine Particulate Matter; SO_2 = Sulfur Dioxide
Source: CARB 2022

The FRAQMD is responsible for adopting or creating a comprehensive plan to reduce the emissions of these criteria pollutants. They also enforce rules and regulations, inspect and issue permits for stationary sources of air pollutants, respond to citizen complaints, monitor ambient air quality and meteorological

conditions, award grants to reduce motor vehicle emissions, and conduct public education campaigns. The FRAQMD coordinates work from government agencies, businesses, and private citizens to achieve and maintain healthy air quality (FRAQMD 2010).

4.3.2 Air Quality (III) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒

No Impact.

As part of its enforcement responsibilities, the USEPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the California Clean Air Act requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the NAAQS and CAAQS. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

As previously mentioned, the Project Site is located within the Yuba County portion of the NSVAB, which is under the jurisdiction of the FRAQMD. The FRAQMD is required, pursuant to the Clean Air Act, to reduce emissions of criteria pollutants for which the NSVAB in nonattainment. The FRAQMD attains and maintains air quality conditions in Yuba County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. Their current strategies are included in the *Northern Sacramento Valley Planning Area Triennial Air Quality Attainment Plan* (2021), which contains mechanisms to achieve O_3 standards. These pollutant control strategies are based on the latest scientific and technical information and planning assumptions, updated emission inventory methodologies for various source categories, and the latest population growth projections and associated vehicle miles traveled projections for the region. FRAQMD's latest population growth forecasts were defined in consultation with local governments and with reference to local general plans. A project conforms with the FRAQMD attainment plans if it complies with all applicable district rules and regulations, complies with all control measures from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan).

FRAQMD growth projections for the unincorporated Yuba County are based on the Yuba County General Plan. As such, projects that propose development consistent with the growth anticipated by the respective general plan of the jurisdiction in which the project is located would be consistent with FRAQMD air quality planning. If a project, however, proposes a project that increases the population density than that assumed in the general plan, the project may conflict with FRAQMD air quality planning efforts and could result in a significant impact on air quality. The Project is proposing the removal and replacement of the

Campbell Gulch Diversion Structure and an existing water pipeline. It would not increase the number of homes or jobs and would not contribute to emissions once the construction of the upgrades is complete. Additionally, to comply with all applicable FRAQMD rules and regulations, the Proposed Project would also have to adhere to the daily and annual thresholds for individual pollutants. As demonstrated below, the Proposed Project construction phase would not surpass any of the FRAQMD's significance thresholds. The Project would not conflict with the Northern Sacramento Valley Planning Area Triennial Air Quality Attainment Plan. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐

Less Than Significant Impact.

Emissions associated with Project construction would be temporary and short-term but have the potential to represent a significant air quality impact. Two basic sources of short-term emissions will be generated through Project construction: operation of the heavy-duty equipment (i.e., excavators, loaders, haul trucks) and the creation of fugitive dust during excavation. Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive PM emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts. The dry climate of the area during the summer months creates a high potential for dust generation.

Construction-generated emissions associated with the Proposed Project were calculated using the California Air Pollution Control Officers Association California Emissions Estimator Model (CalEEMod), version 2022.1.1.14. CalEEMod is a statewide land use emissions computer model designed to quantify potential criterial pollutant emissions associated with both construction and operations from a variety of land use projects. Project construction-generated air pollutant emissions were calculated using CalEEMod model defaults for Yuba County. Appendix A provides more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted daily and maximum emissions attributable to Project construction are summarized in Table 4.3-2. Such emissions are short-term and of temporary duration, lasting only as long as Project construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the FRAQMD's thresholds of significance.

Table 4.3-2. Unmitigated Construction-Related Emissions

Activity	ROG[1]	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Daily Emissions (pounds per day)						
Phase 1 – Vegetation Clearing	1.76	16.1	18	0.04	1.17	0.83
Phase 2 – Material Import	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 – Diversion Structure & Water Pipeline Removal	0.58	6.15	9.01	0.01	0.29	0.27
Phase 3 – Diversion Structure & Water Pipeline Installation	0.55	5.26	4.49	0.01	0.21	0.19
Maximum Emissions	1.76	16.1	18	0.04	1.17	0.83
FRAQMD Daily Significance Threshold	25	25	-	-	80	-
Exceed FRAQMD Daily Threshold?	No	No	No	No	No	No
Annual Emissions (tons per year)						
Total Construction Period	0.06	0.66	0.76	0.00	0.05	0.03
FRAQMD Annual Significance Threshold	*4.5*	*4.5*	-	-	-	-
Exceed FRAQMD Annual Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: California Energy Emissions Model (CalEEMod) Version 2022.1.1.14. Refer to Appendix A for Model Data Outputs.

Notes: CO = Carbon Monoxide; FRAQMD = Feather River Air Quality Management District; NO_x = Nitrous Oxide; ROG = Reactive Organic Gases; PM_{10} = Fine Particulate Matter; $PM_{2.5}$ = Coarse Particulate Matter; SO_2 = Sulfur Dioxide.

Construction emissions taken from the season (summer or winter) with the highest output. Emission calculations account for the export of 5,556 cubic yards of soil material daily during the vegetation clearing and diversion structure/water pipeline removal phases and import of 6,152 cubic yards of soil material daily during the material import and diversion structure/water pipeline phase.

As shown in Table 4.3-2, Project emissions would not exceed the FRAQMD's significance thresholds during construction. Therefore, criteria pollutant emissions generated during Project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard, and no health effects from Project criteria pollutants would occur. This impact is less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐

Less Than Significant Impact.

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest sensitive receptor to the Project Site is a single-family residence located approximately 415 feet east and another located 480 feet northwest of the Project Site.

4.3.2.1 Construction-Generated Air Contaminants

Construction-related activities would result in temporary, short-term Project-generated emissions of Diesel Particulate Matter (DPM), ROG, NO_x, CO, and PM_{10} from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); paving; and other miscellaneous activities. The Yuba County portion of the NSVAB is listed as nonattainment for the California standards of O_3, PM_{10}, and $PM_{2.5}$ (CARB 2022). Thus, existing O_3, PM_{10}, and $PM_{2.5}$ are at unhealthy levels during certain periods.

The health effects associated with O_3 are generally associated with reduced lung function. Since the Project would not involve construction activities that would result in high levels of O_3 precursor emissions (ROG or NOx) in excess of the FRAQMD thresholds, the Project is not anticipated to substantially contribute to regional O_3 concentrations and the associated health impacts.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. The Project would not involve construction activities that would result in CO emissions in that would pose a health risk to the nearby residences. The exposure from construction would be temporary and due to air flow within the area, would not result in a concentrated exposure to CO. Thus, the Project's CO emissions would not contribute to the health effects associated with this pollutant.

PM_{10} and $PM_{2.5}$ contain microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. PM exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing. For construction activity, DPM is the primary Toxic Air Contaminant (TAC) of concern. The potential cancer risk from the inhalation of DPM outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs. PM_{10} exhaust is considered a surrogate for DPM as all diesel exhaust is considered to be DPM and PM_{10} exhaust contains $PM_{2.5}$ exhaust as a subset. As with O_3 and NO_x, the Project would not generate emissions of PM_{10} that would exceed the FRAQMD's thresholds. Accordingly, the Project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause any increase in related regional health effects for these pollutants.

In summary, Project construction would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants.

4.3.2.2 Operational Air Contaminants

The Proposed Project involves the removal and replacement of a diversion structure and existing water pipeline and does not include an operational phase.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Less Than Significant Impact.

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

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

During construction, the Proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the Project Area. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the

emission sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, construction odors would not adversely affect a substantial number of people to odor emissions.

Land uses commonly considered to be potential sources of obnoxious odorous emissions include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Proposed Project does not include any uses identified as being associated with odors. The diversion structure and water pipeline would not emit odors.

4.3.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.4 Biological Resources

The following information was provided by the Biological Resources Assessment completed by ECORP Consulting, Inc. (2023a). This document is included as Appendix B of this IS/MND. In addition, ECORP Consulting, Inc. conducted an Aquatic Resources Delineation (ARD) for the proposed Campbell Gulch Diversion Structure Repair Project (Appendix C). The information provided below is an abridged version of these reports and is provided here to afford a brief context of the potential biological resources in the Project Area.

4.4.1 Environmental Setting

The Study Area is located within mountainous terrain of rural Yuba County situated at an elevational range of approximately 3,010 to 3,140 feet above mean sea level in the Northern High Sierra Nevada subregion of the Sierra Nevada floristic region of California (Appendix B). The Study Area is adjacent to Mountain House Road in Campbell Gulch in unincorporated Yuba County, directly east of the town limits of Camptonville, California. The diversion structure and its access road are located on District property. The transmission pipe crossing is located on private property and the District has an existing easement for access, maintenance, and repairs. The adjacent land uses include rural residential properties that are forested with mixed coniferous trees. U.S. Forest Service land is to the north, east, and south of the Study Area. The Town of Camptonville and State Route 49 are to the west of the Study Area.

4.4.1.1 Site Vegetation

There are two vegetation communities within the Study Area. These are Disturbed and Mixed Coniferous Forest.

Developed/Disturbed

The disturbed land cover type is defined as historically or recently disturbed sites where barren rock or soil dominates the ground layer, and tree and shrub cover is typically sparse or absent. The disturbed land cover type occurs within the access roads and Camptonville Water District Facility on Mackey Lane.

Mixed Coniferous Forest

Mixed coniferous forest occurs is the dominant vegetation community within the Study Area (Figure 2 of Appendix B). The mixed coniferous forest within the Study Area is dominated by incense cedar (*Calocedrus decurrens),* Douglas fir (*Pseudotsuga menziesii*), ponderosa pine (*Pinus ponderosa*), bigleaf maple (*Acer macrophyllum*), tanoak (*Notholithocarpus densiflorus*) in the overstory and the regenerative sapling layer. Sierra plum (*Prunus subcordata*), white fir (*Abies concolor*), Pacific madrone (*Arbutus menziesii*), black oak (*Quercus kelloggii*), Pacific yew (*Taxus brevifolia*), and beaked hazelnut (*Corylus cornuta*) were the dominant subcanopy tree species. California blackberry (*Rubus ursinus*), common snowberry (*Symphoricarpos albus*) are the dominant shrubs present within the Study Area. Examples of dominant herbaceous species observed include fowl bluegrass (*Poa palustris*), American trailplant (*Adenocaulon bicolor*), coastal brookfoam (*Boykinia occidentalis*), and a sedge species (*Carex* sp.). Riparian vegetation, such as bigleaf maple, Sierra plum, California blackberry, Himalayan blackberry (*Rubus armeniacus*), California sword fern (*Polystichum californicum*), Western lady fern (*Athyrium filix-femina var. cyclosorum*), coastal brookfoam, and a sedge species, occur on the banks of Campbell Gulch. The riparian vegetation is moderately dense.

The mixed coniferous forest vegetation community most resembles the Ponderosa pine – Incense Cedar – Douglas fir forest and woodland Alliance as characterized by the Manual of California Vegetation.

4.4.1.2 Wildlife Observations, Movement Corridors, and Nursery Sites

The Study Area is located along Campbell Gulch in a mixed conifer forest within a rural residential area outside of the Camptonville town limits. The Study Area may provide minimal migratory opportunities for wildlife but due to the proximity to the Town of Camptonville and the regular human activities around the Study Area wildlife is likely utilizing adjacent areas more frequently. There are several areas adjacent to the Study Area that would provide higher quality opportunities for wildlife movement including the U.S. Forest Service land surrounding the community of Camptonville, which is more likely to provide wildlife movement and migration corridors and potential nursery sites. The Study Area is approximately 3.25 miles south of the North Fork of the Yuba River and 3.75 miles north of the Middle Fork of the Yuba River in relation to CA Essential Habitat Connectivity; and is 2.25 miles to the east of New Bullard's Bar Reservoir that could provide potential nursery sites for waterbird rookeries.

For the purposes of this analysis, nursery sites include but are not limited to concentrations of nest or den sites such as heron rookeries or bat maternity roosts. This data is available through CDFW's Biogeographic Information and Observation System database or as occurrence records in the CNDDB and is supplemented with the results of the field reconnaissance. No nursery sites have been documented within the Study Area and none were observed during the site reconnaissance.

4.4.1.3 Aquatic Features

A total of 0.106 acre of aquatic resources have been mapped within the Study Area (Table 4.4-1). The Ordinary High-Water Mark (OHWM) determination data forms and a list of plant species observed within

the Study Area are included as Appendix C. A discussion of the aquatic resources is presented below, and the ARD map is presented on Figure 4 of Appendix C.

Representative site photographs and the U.S. Army Corps of Engineers (USACE) Operations and Maintenance Business Information Link Regulatory Module aquatic resources table of potential Waters of the U.S. are included in Appendix C.

Table 4.4-1. Aquatic Resources

Type	Acreage[1]
Wetlands:	
None	N/A
Other Waters:	
Perennial Creek	0.106
Total:	0.106

[1]Acreages represent a calculated estimation and are subject to modification following the U.S. Army Corps of Engineers (USACE) verification process.

Other Waters

Perennial Creek (Campbell Gulch)

Perennial streams are larger-order streams that have continuous flow of surface water throughout the year in at least parts of its catchment during a normal rainfall season. Groundwater is the primary source of water for stream flow. Runoff from precipitation is a supplemental source of water for stream flow. Perennial streams have tributaries of lower-order streams flowing into them such as smaller perennial, intermittent, and ephemeral streams. They are dominated by hydrophytic vegetation that can withstand periods of inundation and thrive off of groundwater associated with the shallow water table. Campbell Gulch is a perennial creek that exhibits a bed and bank, OHWM, and flow continuously throughout the year (Figure 4 of Appendix C).

Campbell Gulch was moderately vegetated below the OHWM within the Study Area. Plant species observed below the OHWM within the Study Area include California spikenard (*Aralia californica*), western lady fern, coastal brookfoam, sedge species (*Carex* sp.), California sword fern, California blackberry, Himalayan blackberry, Santa Barbara sedge (*Carex barbarae*), and American brooklime (*Veronica americana*). Campbell Gulch was heavily vegetated above the OHWM within the Study Area. Plant species observed above the OHWM of Campbell Gulch include bigleaf maple, tanoak, Sierra plum, incense cedar in the tree stratum; and fowl bluegrass, American trail plant, California blackberry, Himalayan blackberry, snowberry, western lady fern, and California sword fern in the understory.

Campbell Gulch is approximately 9 to 15 feet wide within the Study Area and had 2 to 6 inches of flowing water present during the site visit. The water depth in the reach above the diversion structure to the next upstream riffle is artificially deep due to the diversion structure damming water behind it. OHWM data was taken in the riffle upstream of the pool behind the diversion structure to represent natural conditions.

The OHWM was delineated in the field based on the presence of scour, exposed roots, change in plant community, and break in bed and bank.

Campbell Gulch would likely be considered a Water of the U.S. under the current revised definition following the *Sackett* decision as it appears to have a permanent surface connection to an existing Traditional Navigable Waterway, the Feather River, via Willow Creek, New Bullards Bar Reservoir, and the Yuba River.

A total of 0.106 acre of aquatic resources have been mapped within the Study Area. This acreage represents a calculated estimation of the extent of aquatic resources within the Study Area and is subject to modification following USACE review and/or the verification process. The placement of dredged or fill material into jurisdictional features would require a permit pursuant to Section 404 of the federal Clean Water Act (CWA) and certification or waiver in compliance with Section 401 of the CWA.

4.4.1.4 Critical Habitat and Sensitive Natural Communities

No Critical Habitat is present within or adjacent to the Study Area. One sensitive natural community, Darlingtonia Seep, was identified as having potential to occur within the Study Area based on the literature review (Appendix B). No seeps were observed within the Study Area. The riparian corridor of Campbell Gulch may be considered a sensitive natural community by CDFW.

4.4.2 Evaluation of Special-Status Species

A list of the special-status plant and wildlife species identified in the database inquiries as potentially occurring within the Study Area is provided in Table 4.4-2. Included in this table is the listing status for each species, a brief habitat description, and a determination on the potential to occur within the Study Area. Following the table is a brief description and discussion of each special-status species that is known to occur in the Study Area or is considered to potentially occur within the Study Area.

Table 4.4-2 Special-Status Plant and Wildlife Species Identified as Potentially Occurring Within the Study Area

Common Name *Scientific Name*	Status			Habitat	Potential for Occurrence
	ESA	California ESA/ NPPA	Other		
Plants					
Green shield-moss (*Buxbaumia viridis*)	–	–	2B.2	Fallen, decorticated wood or humus in lower montane, subalpine, and upper montane coniferous forests. Elevation: 3,200'-7,220' Bloom Period: N/A	Potential to occur. Wood and humus within the Study Area may provide suitable habitat.
Sierra arching sedge *(Carex cyrtostachya)*	–	–	1B.2	Meadows and seeps, marshes and swamps, in mesic areas of lower montane coniferous forest, and margins of riparian forests. Elevation: 2,000'–4,460' Bloom Period: May–August	Potential to occur. The streambanks within the Study Area may provide suitable habitat for this species.
Mosquin's clarkia (*Clarkia mosquinii*)	–	–	1B.1	Rocky soils and roadsides of cismontane woodland and lower montane coniferous forest. Elevation: 605'–4,890' Bloom Period: May–July	Low potential to occur. The roadsides may provide marginally suitable habitat.
Minute pocket moss (*Fissidens pauperculus*)	–	–	1B.2	Damp soil, dry streambeds, and stream banks in north coast coniferous forest and redwood communities. Elevation: 35'–3,360' Bloom Period: N/A	Potential to occur. The streambanks within the Study Area may provide suitable habitat.
Inundated bog-clubmoss (*Lycopodiella inundata*)	–	–	2B.2	Coastal bogs and fens, mesic areas of lower montane coniferous forest, and lake margins of marshes and swamps. Elevation: 15'-3,280' Bloom Period: N/A	Low potential to occur. The streambanks within the Study Area may provide marginally suitable habitat.
Flexuose thread moss (*Pohlia flexuosa*)	–	–	2B.1	Roadsides and rocky seeps within lower montane coniferous forest. Elevation: 3,115'-3,365' Bloom Period: N/A	Potential to occur. The disturbed soils and streambanks within the Study Area may provide suitable habitat.

Table 4.4-2 Special-Status Plant and Wildlife Species Identified as Potentially Occurring Within the Study Area

Common Name *Scientific Name*	Status			Habitat	Potential for Occurrence
	ESA	California ESA/ NPPA	Other		
Brownish beaked-rush *(Rhynchospora capitellata)*	–	–	2B.2	Mesic areas in lower montane coniferous forest, upper montane coniferous forests, meadows, seeps, marshes, and swamps. Elevation: 150'–6,560' Bloom Period: July–August	Low potential to occur. The streambanks within the Study Area may provide marginally suitable habitat.
Siskiyou jellyskin lichen (*Scytinium siskiyouensis*)	–	–	1B.1	Epiphytic, usually on the bark of plants in the Fagaceae family, such as *Quercus* or *Chrysolepis,* in lower montane coniferous forest, and North Coast coniferous forest. Elevation: 2,085'–4,790' Bloom Period: N/A	Potential to occur. The trees within the Study Area may provide suitable habitat.
True's mountain jewelflower (*Streptanthus tortuosus* ssp. *truei*)	–	–	1B.1	Partial shade on steep rocky slopes within lower montane coniferous forest. Elevation: 2,510'–2,820' Bloom Period: June–July	Low potential to occur. The conifer forest within the Study Area may provide marginally suitable habitat.
Amphibian					
Foothill yellow-legged frog Northeast/Northern Sierra Clade (*Rana boylii*)	–	CT	SSC	Partly shaded shallow streams and riffles in variety of habitats. Needs cobble-sized substrate for egg-laying and at least 15 weeks of permanent water to attain metamorphosis. Can be active all year in warmer locations; become inactive or hibernate in colder climates. Yuba River to Middle Fork American River and Sutter Buttes. Survey Period: May–October.	Potential to Occur. Suitable habitat occurs within Campbell Gulch within the Study Area and multiple CNDDB occurrences are recorded within one mile of the Study Area.

Table 4.4-2 Special-Status Plant and Wildlife Species Identified as Potentially Occurring Within the Study Area

Common Name *Scientific Name*	Status			Habitat	Potential for Occurrence
	ESA	California ESA/ NPPA	Other		
Birds					
California spotted owl *(Strix occidentalis occidentalis)*	FPT	–	BCC, SSC	Found in the southern Cascade Range and northern Sierra Nevada from Pit River, Shasta County south to Tehachapi Mountains, Kern County, in the coastal ranges from Monterey County to Santa Barbara County, in Transverse and Peninsular Ranges south to northern Baja California. At lower elevations, they breed in hardwood forests and coniferous forests at higher elevations. They use forests with greater complexity and structure. Nesting: March-September	Potential to Occur. Moderately suitable habitat occurs within the Study Area and there is a CNDDB occurrence within 0.25 mile of the Study Area.

Status Codes:

FPT	Formally Proposed for federal Endangered Species Act (ESA) listing as Threatened
BCC	U.S. Fish and Wildlife Service (USFWS) Bird of Conservation Concern (2021)
CT	California ESA- or Native Plant Protection Act- (NPPA) listed, Threatened
SSC	California Department of Fish and Wildlife (CDFW) Species of Special Concern
CNDDB	Species that is tracked by CDFW's California Natural Diversity Database (CNDDB) but does not have any of the above special-status designations otherwise
1B	California Rare Plant Rank (CRPR)/Rare or Endangered in California and elsewhere
2B	CRPR/Plants rare, threatened, or endangered in California but more common elsewhere
0.1	Threat Rank/Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
0.2	Threat Rank/Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)

4.4.2.1 Plants

A total of 18 special-status plant species were identified as having the potential to occur within the Study Area based on the database inquiries (Table 4.4-2). Upon further analysis and after the reconnaissance site visit, nine plant species were determined to be absent due to the lack of suitable habitat or the Study Area was outside the known range for the species. No further discussion of these species is provided in the analysis. Brief descriptions of the remaining nine special-status plant species with the potential to occur within the Study Area are provided below.

Green Shield-Moss

Green shield-moss (*Buxbaumia viridis*) is not listed pursuant to either the federal or California ESAs but is designated as a California Rare Plant Rank (CRPR) 2B.2 species. This species is a moss that occurs on fallen, decorticated wood or humus in lower montane coniferous forest, subalpine coniferous forest, and upper montane coniferous forest. Green shield-moss is known to occur at elevations ranging from 3,200 to 7,220 feet AMSL. The current range in California for green shield-moss includes Del Norte, Humboldt, Modoc, Plumas, Trinity, and Yuba counties.

There are no CNDDB occurrences of green shield-moss within 5 miles of the Study Area. The fallen, decorticated wood and humus in the mixed coniferous forest within the Study Area provides suitable habitat for this species. Green shield-moss has the potential to occur within the Study Area.

Sierra Arching Sedge

Sierra arching sedge (*Carex cyrtostachya*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 1B.2 species. This species is a perennial herb that occurs in meadows and seeps, marshes, and swamps, in mesic areas of lower montane coniferous forest, and margins of riparian forest. Sierra arching sedge blooms from May through August and is known to occur at elevations ranging from 2,000 to 4,460 feet AMSL. Sierra arching sedge is endemic to California; the current range of this species includes Butte, El Dorado, and Yuba counties.

There are no CNDDB occurrences of Sierra arching sedge within 5 miles of the Study Area. The streambanks of Campbell Gulch within the mixed coniferous forest of the Study Area provide suitable habitat for this species. Sierra arching sedge has the potential to occur within the Study Area).

Mosquin's Clarkia

Mosquin's clarkia (*Clarkia mosquinii*) is not listed pursuant to the federal ESA, is listed as endangered pursuant to the California ESA, and is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs on roadsides and on rocky soils in cismontane woodland and lower montane coniferous forest. Mosquin's clarkia blooms from May through July and it is known to occur at elevations ranging from 605 to 4,890 feet AMSL. Mosquin's clarkia is endemic to California; the current range of this species includes Butte, Plumas, and Yuba counties.

There are no CNDDB occurrences of Mosquin's clarkia within 5 miles of the Study Area (Appendix B). The roadsides and rocky soils of the mixed coniferous forest within the Study Area provides marginally suitable habitat for this species. Mosquin's clarkia has a low potential to occur within the Study Area.

Minute Pocket Moss

Minute pocket moss (*Fissidens pauperculus*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 1B.2 species. This species is a moss that occurs on damp coastal soil in North Coast coniferous forest. Minute pocket moss is known to occur at elevations ranging from 35 to 3,360 feet AMSL. The current range in California for minute pocket moss includes Alameda, Butte, Del Norte, Humboldt, Marin, Mendocino, San Mateo, Santa Cruz, Sonoma, and Yuba counties.

There are no CNDDB occurrences of minute pocket moss within 5 miles of the Study Area (Appendix B). The streambanks of Campbell Gulch within the mixed coniferous forest of the Study Area provide suitable habitat for this species. Minute pocket moss has the potential to occur within the Study Area

Inundated Bog-Clubmoss

Inundated bog-clubmoss (*Lycopodiella inundata*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 2B.2 species. This species is a perennial rhizomatous herb that occurs in coastal bogs and fens, mesic areas of lower montane coniferous forest, and lake margins of marshes and swamps. Inundated bog-clubmoss blooms from June to September and is known to occur at elevations ranging from 15 to 3,280 feet AMSL. The current range in California for inundated bog-clubmoss includes Humboldt and Nevada counties.

There are no CNDDB occurrences of inundated bog-clubmoss within 5 miles of the Study Area (Appendix B). The streambanks of Campbell Gulch within the mixed coniferous forest of the Study Area provide marginally suitable habitat for this species. Inundated bog-clubmoss has a low potential to occur within the Study Area.

Flexuose Thread Moss

Flexuose thread moss (*Pohlia flexuosa*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 2B.1 species. This species is a moss that occurs on roadsides and in rocky seeps in lower montane coniferous forest. Flexuose thread moss is known to occur at elevations ranging from 3,115 to 3,365 feet AMSL. The current range for this species in California includes Yuba County (Appendix B).

There are no CNDDB occurrences of flexuose thread moss within 5 miles of the Study Area (Appendix B). The streambanks of Campbell Gulch within the mixed coniferous forest of the Study Area provide suitable habitat for this species. Flexuose thread moss has the potential to occur within the Study Area

Brownish Beaked-Rush

Brownish beaked-rush (*Rhynchospora capitellata*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 2B.2 species. This species is an herbaceous perennial that occurs in

mesic areas in lower montane coniferous forest, meadows, seeps, marshes, swamps, and upper montane coniferous forest. Brownish beaked-rush blooms from July through August and is known to occur at elevations ranging from 150 to 6,560 feet AMSL. The current range of this species in California includes Butte, El Dorado, Mariposa, Nevada, Plumas, Sonoma, Tehama, Trinity, Tuolumne, and Yuba counties; distribution or identity is uncertain in Sonoma County, but it is presumed extirpated if it was once present there).

There are no CNDDB occurrences of brownish beaked-rush within 5 miles of the Study Area. The streambanks of Campbell Gulch within the mixed coniferous forest of the Study Area provide marginally suitable habitat for this species. Brownish beaked-rush has a low potential to occur within the Study Area.

Siskiyou Jellyskin Lichen

Siskiyou jellyskin lichen (*Scytinium siskiyouensis*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 1B.1 species. This species is a foliose lichen that is epiphytic and usually occurs on the bark of plants in the Fagaceae family, such as *Quercus* or *Chrysolepis,* in lower montane coniferous forest and North Coast coniferous forest. Siskiyou jellyskin lichen is known to occur at elevations ranging from 2,085 and 4,790 feet AMSL. The current range of this species in California includes Butte, Humboldt, Monterey, Plumas, Shasta, Tehama, Trinity, and Tuolumne counties.

There are no CNDDB occurrences of Siskiyou jellyskin lichen within 5 miles of the Study Area (Appendix B). The trees within the mixed coniferous forest of the Study Area provide suitable habitat for this species. Siskiyou jellyskin lichen has the potential to occur within the Study Area.

True's Mountain Jewelflower

True's mountain jewelflower (*Streptanthus tortuosus* ssp. *truei*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 1B.1 species. This species is an herbaceous perennial that occurs in partial shade on steep rocky slopes in lower montane coniferous forest. True's mountain jewelflower blooms from June through July and is known to occur at elevations ranging from 2,510 to 2,820 feet AMSL. The current range of this species in California includes Nevada and Sierra counties.

There are three CNDDB occurrences of True's mountain jewelflower within 5 miles of the Study Area. The conifer forest within the Study Area may provide marginally suitable habitat for this species. True's mountain jewelflower has a low potential to occur within the Study Area.

4.4.2.2 Invertebrates

Two special-status invertebrate species were identified as having potential to occur in the Study Area based on the database inquiries. However, upon further analysis and after the site visit, both species were considered to be absent from the Study Area due to the lack of suitable habitat and/or because the Study Area is outside of the known geographic range for these species. No further discussion of these species is provided within this assessment.

4.4.2.3 Fish

No special-status fish species were identified as having potential to occur in the vicinity of the Study Area based on the database inquiries and literature review.

4.4.2.4 Amphibians

A total of five special-status amphibian species were identified as having the potential to occur within the Study Area based on the database inquiries. Upon further analysis and after the reconnaissance site visit, four amphibian species were determined to be absent due to the lack of suitable habitat or the Study Area was outside the known range for the species. No further discussion of these species is provided in the analysis. A brief description of the remaining one special-status amphibian species with the potential to occur within the Study Area is provided below.

Foothill Yellow-Legged Frog (Northeast/Northern Sierra Clade)

Recent genetic work has described six genetic clades of the Foothill Yellow-Legged Frog (FYLF) subdivided by geography. The California Department of Fish and Wildlife, in their recent Staff Summary Report for listing the species used these clades as the basis for analyzing the foothill yellow-legged frog across its range in California. CDFW recognizes clades from northwest/north coast, north Feather River/upper Feather River, northeast/northern Sierra, west/central coast, east/southern Sierra, and the southwest/south coast.

The Northeast/Northern Sierra clade of FYLF is listed as threatened pursuant to the California ESA and is considered a California Species of Special Concern (SSC) across its range. The Northeast/Northern Sierra clade of FYLF generally occurs in Sutter, Yuba, Sierra, Nevada, and Placer counties. The northern portion of the clade boundary extends into Plumas County and coincides with the northern boundary of the Upper Yuba Watershed (Appendix B). The southern portion of the clade boundary extends into El Dorado County and coincides with the southern boundary of the North Fork American Watershed.

Foothill yellow-legged frogs occupy rocky streams in valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow plant communities. They are rarely found far from water and will often dive into water to take refuge under rocks or sediment when disturbed.

Moyle implicated the bullfrog (*Lithobates catesbeianus*) as a cause of the observed reduction of yellow-legged frog populations in the Central Valley and in the Sierra Nevada. The introduction of nonnative fishes, including centrarchids (e.g., bass, sunfish), known to eat eggs of ranid frogs (Appendix B), and stocking of salmonids (trout) in streams where they historically did not exist, may also contribute to the disappearance or reduction of native frog populations in Sierra streams. Additional human-related impacts to foothill yellow-legged frogs and their habitat include the construction and maintenance of dams and reservoirs and resultant controlled stream flows, recreation, and livestock grazing. A chytrid fungus (*Batrachochytrium dendrobatidis*), which can be fatal to metamorphic and adult frogs, has become increasingly common in the Sierra Nevada, and has been shown to delay growth of foothill yellow-legged frogs.

There are approximately 50 CNDDB occurrences of FYLF located within 5 miles of the Study Area. There is suitable aquatic habitat within and adjacent to the Study Area. Foothill yellow-legged frog has potential to occur within the Study Area.

4.4.2.5 Reptiles

Two special-status reptile species were identified as having potential to occur in the Study Area based on the database inquiries. However, upon further analysis and after the site visit, both species were considered to be absent from the Study Area due to the lack of suitable habitat and/or because the Study Area is outside of the known geographic range for these species. No further discussion of these species is provided within this assessment.

4.4.2.6 Birds

A total of 14 special-status bird species were identified as having the potential to occur within the Study Area based on the database inquiries. Upon further analysis and after the reconnaissance site visit, six species of birds were determined to be absent due to the lack of suitable habitat or the Study Area was outside the known range for the species. No further discussion of these species is provided in the analysis. A brief description of the remaining eight special-status bird species with the potential to occur within the Study Area is provided below.

Cooper's Hawk

The Cooper's hawk (*Accipiter cooperii*) is not listed pursuant to either the California or federal ESAs; however, it is a CDFW Watch List species. Typical nesting and foraging habitats include riparian woodland, dense oak woodland, and other woodlands near water. Cooper's hawks nest throughout California from Siskiyou County to San Diego County and includes the Central Valley (Appendix B). Breeding occurs from March through July, with a peak from May through July.

There are no CNDDB occurrences of Cooper's hawk within 5 miles of the Study Area (Appendix B). The riparian woodland within the mixed coniferous forest of the Study Area provides suitable habitat for this species. Cooper's hawk has the potential to occur within the Study Area.

California Spotted Owl

The California spotted owl (*Strix occidentalis occidentalis*) is proposed to be listed as threatened pursuant to the federal ESA. This is a subspecies of spotted owl, which occurs primarily on the west slope of the Sierra Nevada range, with isolated metapopulations along the central California coastal range and Southern California. A year-round resident in most of its range, breeding range occurs from 1,000 feet to almost 8,000 feet, with some birds migrating to lower elevations in the winter. This is an owl primarily of dense Ponderosa pine and mixed coniferous forest, with old-growth trees, snags, a complex canopy, and abundant woody debris. Wintering may occur in blue oak (*Quercus douglasii*)-gray pine (*Pinus sabiniana*) foothill riparian forests. California spotted owls do not build their own nest, but rather use naturally occurring platforms, cliffs, and abandoned common raven (*Corvus corax*), raptor, or squirrel nests. Nesting occurs from March through September.

There are 22 CNDDB records of California spotted owl nesting pairs within five miles of the Study Area with one record of a California spotted owl nesting pair approximately 1/4 mile from the Study Area. The mixed coniferous forests within the Study Area provide suitable habitat for California spotted owl.

Great Gray Owl

The great gray owl (*Strix nebulosa*) is listed as an endangered species under the California ESA but is not listed under the federal ESA. In North America, great gray owls are found from Alaska through Canada and into Washington, Idaho, Montana south through the Cascade and Sierra Nevada ranges to east-central California, west-central Nevada, and northwestern Wyoming. In California, breeding habitat generally includes pine and fir forests adjacent to montane meadows between 750 and 2,250 meters (2,461 and 7,382 feet) AMSL; in central Oregon, breeding habitat included meadow systems associated with coniferous forests; and in northeastern Oregon, breeding habitat included all forest types. Great gray owls nest in broken-topped dead trees, old raptor nests, mistletoe brooms, and human-made platforms. Breeding season occurs from March through July.

There is one CNDDB occurrence of great gray owl within 5 miles of the Study Area (Appendix B). The mixed coniferous forest within the Study Area provides marginally suitable nesting habitat for this species; however, a meadow (approximately 20 acres in size) occurs within 440 yards to the northeast of the Study Area. Great gray owl has a low potential to occur within the Study Area.

Olive-Sided Flycatcher

The olive-sided flycatcher (*Contopus cooperi*) is not listed pursuant to either the California or federal ESAs but is a CDFW SSC and a USFWS Bird of Conservation Concern (BCC). In the western U.S., olive-sided flycatchers breed from Washington south throughout California, except the Central Valley, eastern deserts, and mountains of Southern California. This species breeds in late-successional coniferous forests including Ponderosa pine woodlands, black oak woodlands, mixed coniferous forests, and Jeffrey pine forests, usually at mid to high elevations. They use edges and clearings surrounding dense forests, foraging primarily on bees and wasps. Nesting occurs during May through August.

There are no CNDDB occurrences of olive-sided flycatcher within 5 miles of the Study Area (Appendix B). The mixed coniferous forest within the Study Area provides suitable breeding habitat for this species. Olive-sided flycatcher has the potential to occur within the Study Area.

Oak Titmouse

Oak titmouse (*Baeolophus inornatus*) are not listed and protected under either state or federal ESAs but are considered a USFWS BCC. Oak titmouse breeding range includes southwestern Oregon south through California's Coast, Transverse, and Peninsular ranges, western foothills of the Sierra Nevada, into Baja California; they are absent from the humid northwestern coastal region and the San Joaquin Valley. They are found in dry oak or oak-pine woodlands but may also use scrub oaks or other brush near woodlands. Nesting occurs during March through July.

There are no CNDDB occurrences of oak titmouse within 5 miles of the Study Area (Appendix B). The trees within the mixed coniferous forest of the Study Area provides suitable habitat for this species. Oak titmouse has the potential to occur within the Study Area.

Evening Grosbeak

The evening grosbeak (*Coccothraustes vespertinus*) is not listed and protected under either federal or California ESAs; however, it is considered a BCC according to the USFWS. In California, evening grosbeak breeding range includes the mountains of Northern California from Siskiyou and Trinity counties, and Warner Mountains on both slopes of the Cascade-Sierra axis south to Tulare County (Appendix B). Evening grosbeak nest in trees and large shrubs in open canopy mixed conifer forests, and open and closed canopy red fir forests. Nesting occurs from May through August.

There are no CNDDB occurrences of evening grosbeak within 5 miles of the Study Area (Appendix B). The trees within the mixed coniferous forest of the Study Area provides suitable breeding habitat for this species. Evening grosbeak has the potential to occur within the Study Area.

Yellow Warbler

Yellow warbler (*Setophaga petechia*) is a CDFW SSC. Yellow warbler nest from Baja California northward to Alaska and winter from Southern California to South America. Breeding occurs throughout much of California up to 8,000 feet elevation, except the Central Valley and southeastern deserts. Breeding habitat includes riparian vegetation in close proximity to water along streams and wet meadows. During migration, yellow warbler may occur in a wide variety of woodland habitats throughout California. The nesting season is May through August.

There are no CNDDB occurrences of yellow warbler within 5 miles of the Study Area. The riparian vegetation within the mixed coniferous forest of the Study Area provides suitable habitat for this species. Yellow warbler has the potential to occur within the Study Area.

Black-Throated Gray Warbler

Black-throated gray warbler (*Setophaga nigrescens*) is not listed and protected under either federal or California ESAs; however, it is considered a BCC according to the USFWS. Their breeding range includes British Columbia south into northern Mexico. In California, present primarily in mountains: Klamath to Warner mountains, North Coast Ranges south to Sonoma and Napa counties; Santa Cruz Mountains and Diablo Range of Santa Clara County, Oakland hills, Diablo Range south through Santa Barbara and Ventura counties; Cascade and Sierra Nevada ranges south through Piute and Tehachapi mountains; Transverse Ranges, San Jacinto Mountain, Palomar Mountain, Mount Laguna, Cuyamaca Mountains, and possibly Santa Ana Mountains in extreme southwest; White and Inyo mountains, Panamint and Kingston ranges, and New York Mountains in southeast. Breeding habitat includes open coniferous or mixed coniferous-deciduous woodland with brushy undergrowth, pinyon-juniper and pine-oak associates, and oak scrub. Their deep cup nests are often built on horizontal branches and constructed of a variety of plant material, feathers, and mammal fur. Nesting occurs from May through July.

There are no CNDDB occurrences of black-throated gray warbler within 5 miles of the Study Area. The mixed coniferous forest within the Study Area provides marginally suitable habitat for this species. Black-throated gray warbler has a low potential to occur within the Study Area.

Other Protected Birds

All native or naturally occurring birds and their occupied nests/eggs are protected under the federal Migratory Bird Treaty Act (MBTA). The Study Area supports suitable nesting habitat for a variety of common birds protected under these regulations.

4.4.2.7 Mammals

A total of five special-status mammal species were identified as having the potential to occur within the Study Area based on the literature review and database inquiries. Upon further analysis and after the reconnaissance site visit, four species of mammals were determined to be absent due to the lack of suitable habitat or the Study Area was outside the known range for the species. No further discussion of these species is provided in the analysis. A brief description of the remaining one special-status mammal species with the potential to occur within the Study Area is provided below.

Western Red Bat

The western red bat (*Lasiurus frantzii*) is not listed pursuant to either the California or federal ESAs; however, this species is considered an SSC by CDFW. The western red bat is easily distinguished from other western bat species by its distinctive red coloration. This species is broadly distributed with its range extending from southern British Columbia in Canada through Argentina and Chile in South America, and including much of the western U.S. This solitary species day roosts primarily in the foliage of trees or shrubs in edge habitats bordering streams or open fields, in orchards, and occasionally urban areas. They may be associated with intact riparian habitat, especially with willows, cottonwoods, and sycamores. This species may occasionally utilize caves for roosting as well. The western red bat feeds on a variety of insects and generally begins to forage 1 to 2 hours after sunset. This species is considered highly migratory; however, the timing of migration and the summer ranges of males and females may be different.

There are no CNDDB occurrences western red bat within 5 miles of the Study Area (Appendix B). The trees within the riparian corridor of the mixed coniferous forest within the Study Area provide marginally suitable habitat for this species. The western red bat has a low potential to occur within the Study Area.

4.4.3 Biological Resources (IV) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

Less Than Significant Impact With Mitigation Incorporated.

No special-status species are known to occur within the Study Area. The Project would result in temporary construction-related impacts to the riparian (perennial creek) and coniferous forest resources that provide habitat for special-status species within the Study Area. Potential impacts to these habitats include temporary disturbance associated with grading, clearing, and tree-pruning activities, as well as the temporary work conducted within the perennial creek associated with the replacement of the diversion structure and transmission pipeline. The Project would result in temporary impacts to aquatic habitat within Campbell Gulch. As such, the Project would potentially have a substantial adverse effect, either directly or through habitat modifications, on special-status species identified by CDFW, USFWS, MBTA and on aquatic resources as identified by the National Wetland Inventory (NWI). Impacts by species or habitat group are summarized below. The implementation of mitigation measures BIO-1 through BIO-6 described in Section 4.4.4 below would ensure avoidance or a reduction in impacts to species identified as a candidate, sensitive, or special status and their habitat.

Based on the field reconnaissance, the Study Area supports potential habitat for several special-status plants, amphibians, and birds. Potential effects to special-status species are summarized in the following sections by taxonomic group or species.

4.4.3.1 Special-Status Plants

There is potential for nine special-status plants to occur within the Study Area. Implementation of Mitigation Measure BIO-1 would reduce this potential impact to a less than significant level.

4.4.3.2 Special-Status Amphibians

There is potential for one special-status amphibian to occur within the Study Area. Implementation of Mitigation Measure BIO-2 would reduce this potential impact to a less than significant level.

4.4.3.3 Special-Status Birds and Migratory Bird Treaty Act-Protected Birds (Including Nesting Raptors)

The Study Area supports potential nesting habitat for eight special-status bird species in addition to raptors and other common species of birds protected under MBTA and the California Fish and Game Code. Implementation of Mitigation Measures BIO-3, BIO-4, and BIO-5 would reduce this potential impact to a less than significant level.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

Less Than Significant Impact With Mitigation Incorporated.

As previously discussed in section 4.4.1, no Critical Habitat is present within or adjacent to the Study Area. One sensitive natural community, Darlingtonia Seep, was identified as having potential to occur within the Study Area. However, no seeps were observed within the Study Area. The riparian corridor of Campbell Gulch may be considered a sensitive natural community by CDFW. Implementation of Mitigation Measure BIO-6 would reduce this potential impact to a less than significant level.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐

Less Than Significant Impact With Mitigation Incorporated.

Based on the Aquatic Resources Delineation conducted for the Proposed Project, a total of 0.106 acre of aquatic resources have been mapped within the Study Area. This acreage represents a calculated estimation of the extent of aquatic resources within the Study Area and is subject to modification following USACE review and/or the verification process. As work is proposed to be conducted within the vicinity of these resources, including the potential for the placement of dredged or fill material into jurisdictional features, implementation of mitigation measure BIO-6 would reduce potential impacts to a less than significant level.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐

Less Than Significant Impact With Mitigation Incorporated.

The Study Area provides migratory opportunities for terrestrial wildlife onsite. Project construction is likely to temporarily disturb and displace some wildlife from the vicinity of the Study Area. Some wildlife such as birds or nocturnal species are likely to continue to use the habitats opportunistically for the duration of construction. Once construction is complete, wildlife movements are expected to resume. The Project is not expected to substantially interfere with wildlife movement. There are no documented nursery sites, and no nursery sites were observed within the Study Area during the site reconnaissance.

As stated previously, some wildlife such as birds or nocturnal species are likely to continue to use the habitats opportunistically for the duration of construction. With implementation of Mitigation Measures BIO-3, BIO-4, and BIO-5, the Project would have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐

Less Than Significant Impact With Mitigation Incorporated.

The County does not have a tree preservation ordinance, but General Plan Policy NR5.5 states that the County will support cooperative restoration, development, and promotion of natural resources with the USFWS, USACE, the Bureau of Reclamation, the US Forest Service, and other public agencies with an interest in the Yuba County's water and wildlife assets. Project implementation could result in the direct or indirect impacts to protected biological resources. Implementation of mitigation measure BIO-1 would avoid, minimize, and/or compensate for potential effects to protected biological resources and would reduce this potential impact to a less than significant level.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

As discussed previously, there is no critical habitat present within the Study Area, and the Study Area is not covered by any local, regional, or state conservation plan. Therefore, the Project would not conflict with any local, regional, or state conservation plan. There would be no impact.

4.4.4 Mitigation Measures

BIO-1: Special Status Plants.

- Perform focused plant surveys of the Project site according to CDFW, California Native Plant Society (CNPS) , and USFWS protocols prior to construction (California Department of Fish and Game 2009; CNPS 2001, USFWS 1996). Surveys shall be conducted by a qualified biologist according to the blooming period for target species and timed according to the appropriate phenological stage for identifying target species. Known reference populations will be visited and/or local herbaria records should be reviewed, if available, prior to surveys to confirm the phenological stage of the target species. If no special-status plants are found within the Project site, no further measures pertaining to special-status plants are necessary.
- If special-status plants are identified within 25-feet of the Project site, implement the following measures:

  The Project will avoid occurrences of special-status plant species by establishing and clearly demarcating avoidance zones around the plant occurrences prior to construction. Avoidance zones should include the extent of the special-status plants plus a minimum 25-foot buffer, unless otherwise determined by a qualified biologist, and should be maintained until the completion of construction. Additional measures such as seed collection and/or transplantation may be developed in consultation with CDFW and the CEQA Lead Agency if special-status plant species are found within the Project site and avoidance of the species is not possible.

Timing/Implementation: *Prior to and during construction activities*

Monitoring/Enforcement: *Camptonville Community Services District*

BIO-2: Foothill Yellow-Legged Frog (Northeast/Northern Sierra Clade).

Northeast/Northern Sierra clade of FYLF has the potential to occur within the riparian corridor of Campbell Gulch within the mixed coniferous forest habitat of the Study Area. Implementation of the following measure would avoid or minimize impacts to FYLF:

- A qualified biologist shall conduct a preconstruction survey for all life stages of foothill yellow-legged frog between April 1 – September 30 within five days prior to ground or vegetation disturbance within 50-feet of Campbell Gulch. The preconstruction survey will be conducted after 10:00 am. The preconstruction survey will not be conducted during inclement weather (rainstorms or unseasonably cold weather). A preconstruction survey report will be prepared including methods, results, and recommendations sections. If foothill yellow-legged frog is not observed, then no further action is required.
- If foothill yellow-legged frog at any life stage is observed during the preconstruction survey or during the course of construction, then a Foothill Yellow-Legged Frog Capture and Relocation Plan will be prepared and submitted to CDFW for approval. CDFW approval of the Capture and Relocation Plan and relocation activities will occur prior to initiation of Project activities within 50 feet of Campbell Gulch. The Capture and Relocation Plan will include equipment decontamination methods, capture and relocation methods, and details of the location where individuals will be relocated to.
- If foothill yellow-legged frog at any life stage is observed during the preconstruction survey or during the course of construction, then Project activities will be immediately halted within 100 feet of the observation, individuals will be allowed to leave on their own volition, and CDFW will be consulted. Project activities will resume once written authorization has been obtained from CDFW. The Project will either develop avoidance and minimization measures in coordination with CDFW or obtain an Incidental Take Permit from CDFW to document compliance with the California ESA.

Timing/Implementation: *Prior to and during construction activities*

Monitoring/Enforcement: *Camptonville Community Services District*

BIO-3: California Spotted Owl.

California spotted owl has the potential to occur within the Study Area and there is one CNDDB occurrence of California spotted owl within 0.25 miles of the Study Area. If nesting California spotted owl are present within 0.25 miles of the Project, the Project could result in harassment to nesting individuals. In order to avoid impacts to California spotted owl, the following avoidance and minimization measures are recommended:

- Project activities shall be conducted October through February, outside of the California spotted owl nesting season. The California spotted owl nesting season is March through September.
- If Project activities are to occur during the California spotted owl nesting season, then "Disturbance-Only Project" surveys according to the USFWS 2012 northern spotted owl

survey protocol shall be conducted by a qualified biologist (USFWS 2012). "Disturbance-Only Project" surveys include a one-year six visit survey that covers all spotted owl habitat within 0.25 mile from the Project area.

- Alternative to conducting the protocol surveys, the lead agency may conduct an informal consultation with the USFWS to seek recommendations for what California spotted owl avoidance and minimization measures would be appropriate for the Project.

Timing/Implementation: *Prior to and during construction activities*

Monitoring/Enforcement: *Camptonville Community Services District*

BIO-4: Great Gray Owl.

Great gray owl has a low potential to occur within the Study Area. The following measures are recommended to avoid and minimize potential impacts to great gray owl:

- Project activities shall be conducted between June 15 and March 15th, outside of the great gray owl nesting season. The great gray nesting season is late March to mid-June.
- If Project activities are to occur during the great gray nesting season (March 15 to June 15), then preconstruction surveys shall be conducted according to the May 2000 Survey Protocol for the Great Gray Owl in the Sierra Nevada of California (Beck and Winter 2000).
- Alternative to conducting the protocol surveys, the lead agency may consult with CDFW to seeks recommendations for what great gray owl avoidance and minimization measures would be appropriate for the Project.

Timing/Implementation: *Prior to and during construction activities*

Monitoring/Enforcement: *Camptonville Community Services District*

BIO-5: Nesting Birds and Raptors.

Cooper's hawk, olive-sided flycatcher, oak titmouse, evening grosbeak, yellow warbler, and black-throated gray warbler as well as common species of birds and raptors have the potential to nest within the Study Area. The following measure is recommended to avoid or minimize potential impacts to nesting birds and raptors protected by MBTA and California Fish and Game Code:

- Project activities shall be conducted October through January, outside of the typical bird nesting season (generally February 1 through September 30).
- If Project activities are to occur during the nesting season (generally February 1 through September 30), conduct a preconstruction nesting bird survey of all suitable nesting habitat within 14 days of the commencement of Project activities in a given area of Project activities. The survey shall be conducted within a 500-foot radius of Project work areas for raptors and within a 100-foot radius for other nesting birds. If any active nests are observed, these nests shall be designated a sensitive area and protected by a no-

disturbance buffer established by a qualified biologist until a qualified biologist has determined that the young have fledged and are no longer reliant upon the nest or parental care for survival. A Preconstruction Nesting Bird Survey Report will be prepared by a qualified biologist that includes surveyors' names and affiliation, dates and times of surveys, methods, results, and recommendations. If there is a lapse in Project activities of 15 days or longer for areas that have been surveyed, then additional nesting bird survey(s) will be conducted.

Timing/Implementation: *Prior to and during construction activities*

Monitoring/Enforcement: *Camptonville Community Services District*

BIO-6: Waters of the U.S./State

Impacts to Campbell Gulch from diversion structure repairs are proposed. To minimize the proposed impacts to potentially jurisdictional Waters of the U.S./State, the following measures are recommended:

- Obtain verification of Waters of the U.S./State from the USACE and/or Waters of the State from the Central Valley RWQCB.
- A permit authorization under Section 404 of the federal CWA (Section 404 Permit) must be obtained from USACE prior to discharging any dredged or fill materials into any Waters of the U.S. Final AMMs will be developed as part of the Section 404 Permit process to ensure no-net-loss of wetland function and values.
- A permit authorization from the Central Valley RWQCB pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Act must be obtained prior to the discharge of material in an area that could affect Waters of the U.S./State. Mitigation requirements for discharge to Waters of the U.S./State will be developed in consultation with the Central Valley RWQCB.
- A Streambed Alteration Agreement (SAA) from CDFW pursuant to Section 1602 of the California Fish and Game Code must be obtained for impacts to features (e.g., the bed, channel, or bank of any river, stream, or lake) that may be subject to Section 1600 of the Fish and Game Code. The construction contractor shall adhere to all conditions outlined in Section 1602 SAA.

Timing/Implementation: *Prior to and during construction activities*

Monitoring/Enforcement: *Camptonville Community Services District*

4.5 Cultural Resources

4.5.1 Cultural Resources Inventory and Evaluation Report

An Archaeological Resources Inventory Report was prepared by ECORP Consulting (2023c) for the Proposed Project to identify potentially eligible cultural resources (i.e., archaeological sites and historic buildings, structures, and objects) that could be affected by the Project. The information provided below is

an abridged version of this report and is provided here to afford a brief context of the potential cultural resources in the Project Area.

4.5.2 Regulatory Context

The CEQA lead agency for this project is Camptonville Community Services District. The National Environmental Policy Act (NEPA) or Section 106 lead agency for this project is the USACE.

A review of the regulatory context is provided below; however, the inclusion of any of these laws and regulations in this report does not make a law or regulation apply when it otherwise would not. Similarly, the omission of any other laws and regulations from this section does not mean that they do not apply. Rather, the purpose of this section is to provide context in explaining why the study was carried out in the manner documented herein.

4.5.2.1 National Environmental Policy Act

NEPA establishes national policy for the protection and enhancement of the environment. Part of the function of the federal government in protecting the environment is to "preserve important historic, cultural, and natural aspects of our national heritage." Cultural resources need not be determined eligible for the National Register of Historic Places (NRHP) through the National Historic Preservation Act (NHPA) of 1966 (as amended) to receive consideration under NEPA. NEPA is implemented by regulations of the Council on Environmental Quality (40 Code of Federal Regulations [CFR] 1500-1508).

The definition of *effects* in the NEPA regulations includes adverse and beneficial effects on historic and cultural resources (40 CFR 1508.8). Therefore, the *Environmental Consequences* section of an Environmental Impact Statement [see 40 CFR 1502.16(f)] must analyze potential effects to historic or cultural resources that could result from the proposed action and each alternative. In considering whether an alternative may "significantly affect the quality of the human environment," a federal agency must consider, among other things:

- Unique characteristics of the geographic area, such as proximity to historic or cultural resources (40 CFR 1508.27(b)(3)), and
- The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the NRHP (40 CFR 1508.27(b)(8)).

Therefore, because historic properties are a subset of *cultural resources*, they are one aspect of the *human environment* defined by NEPA regulations.

4.5.2.2 National Historic Preservation Act

The federal law that covers cultural resources that could be affected by federal undertakings is the NHPA of 1966, as amended. Section 106 of the NHPA requires that federal agencies take into account the effects of a federal undertaking on properties listed in or eligible for the NRHP. The agencies must afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on the undertaking. A federal undertaking is defined in 36 CFR 800.16(y):

> "A federal undertaking means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license, or approval."

The regulations that stipulate the procedures for complying with Section 106 are in 36 CFR 800. The Section 106 regulations require:

- definition of the APE;
- identification of cultural resources within the APE;
- evaluation of the identified resources in the APE using NRHP eligibility criteria;
- determination of whether the effects of the undertaking or project on eligible resources will be adverse; and
- agreement on and implementation of efforts to resolve adverse effects, if necessary.

The federal agency must seek comment from the State Historic Preservation Officer (SHPO) and, in some cases, the ACHP, for its determinations of eligibility, effects, and proposed mitigation measures. Section 106 procedures for a specific project can be modified by negotiation of a Memorandum of Agreement or Programmatic Agreement between the federal agency, the SHPO, and, in some cases, the project proponent.

Effects to a cultural resource are potentially adverse if the lead federal agency, with the SHPO's concurrence, determines the resource eligible for the NRHP, making it a Historic Property, and if application of the Criteria of Adverse Effects (36 CFR 800.5[a][2] et seq.) results in the conclusion that the effects will be adverse. The NRHP eligibility criteria, contained in 36 CFR 63, are as follows:

> The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess aspects of integrity of location, design, setting, materials, workmanship, feeling, association, and
>
> A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> B. that are associated with the lives of persons significant in our past; or
>
> C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> D. that have yielded, or may be likely to yield, information important in prehistory.

In addition, the resource must be at least 50 years old, barring exceptional circumstances (36 CFR 60.4). Resources that are eligible for, or listed on, the NRHP are *historic properties*.

Regulations implementing Section 106 of the NHPA (36 CFR 800.5) require that the federal agency, in consultation with the SHPO, apply the Criteria of Adverse Effect to historic properties within the APE. According to 36 CFR 800.5(a)(1):

> "An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association."

4.5.2.3 California Environmental Quality Act

CEQA is the state law that applies to a project's impacts on cultural resources. A project is an activity that may cause a direct or indirect physical change in the environment and that is undertaken or funded by a state or local agency, or requires a permit, license, or lease from a state or local agency. CEQA requires that impacts to Historical Resources be identified and, if the impacts will be significant, then apply mitigation measures to reduce the impacts.

A Historical Resource is a resource that 1) is listed in or has been determined eligible for listing in the California Register of Historical Resources (CRHR) by the State Historical Resources Commission, or has been determined historically significant by the CEQA lead agency because it meets the eligibility criteria for the CRHR, 2) is included in a local register of historical resources, as defined in Public Resources Code (PRC) 5020.1(k), or 3), and has been identified as significant in a historical resources survey, as defined in PRC 5024.1(g) (CCR Title 14, Section 15064.5(a)).

The eligibility criteria for the CRHR are as follows (CCR Title 14, Section 4852(b)):

(1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;

(2) It is associated with the lives of persons important to local, California, or national history;

(3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or

(4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition, the resource must retain integrity, which is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association (CCR Title 14, Section 4852(c)). Resources that have been determined eligible for the NRHP are automatically eligible for the CRHR.

Impacts to a Historical Resource, as defined by CEQA (listed in an official historic inventory or survey or eligible for the CRHR), are significant if the resource is demolished or destroyed or if the characteristics that made the resource eligible are materially impaired (CCR Title 14, Section 15064.5(b)). Demolition or alteration of eligible buildings, structures, and features that they would no longer be eligible would result in a significant impact. Whole or partial destruction of eligible archaeological sites would result in a

significant impact. In addition to impacts from construction resulting in destruction or physical alteration of an eligible resource, impacts to the integrity of setting (sometimes termed *visual impacts*) of physical features in the Project Area could also result in significant impacts.

Tribal Cultural Resources (TCRs) are defined in Section 21074 of the California PRC as sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either included in or determined to be eligible for inclusion in the CRHR, or are included in a local register of historical resources as defined in subdivision (k) of Section 5020.1, or are a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. Section 1(b)(4) of Assembly Bill (AB) 52 established that only California Native American tribes, as defined in Section 21073 of the California PRC, are experts in the identification of TCRs and impacts thereto. Because ECORP does not meet the definition of a California Native American tribe, it only addresses information in this report for which it is qualified to identify and evaluate, and that which is needed to inform the cultural resources section of CEQA documents. This report, therefore, does not identify or evaluate TCRs. Should California Native American tribes ascribe additional importance to or interpretation of archaeological resources described herein, or provide information about non-archeological TCRs, that information is documented separately in the AB 52 tribal consultation record between the tribe(s) and lead agency and summarized in the TCRs section of the CEQA document, if applicable.

4.5.2.4 U.S. Army Corps of Engineers Regulations

The project would affect waters of the United States; therefore, the project proponent must meet requirements of Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899 and/or Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972, and is therefore, seeking authorization from the U.S. Army Corps of Engineers. The USACE Sacramento District provides guidance for preparation of Section 106 reports in "2020 Sacramento District Regulatory Branch Guidelines for Compliance with Section 106 of the NHPA of 1966, as amended." Apart from the requirements of the NHPA, all historic properties are subject to consideration under the USACE's NEPA processes (33 CFR Part 325, Appendix D), and the USACE's public interest review requirements contained in 33 CFR 320.4. Therefore, historic properties are included as a factor in the district engineer's decision on each CWA 404 permit application.

If the Project or activity is found to have an adverse effect on NRHP-designated historic properties, the district engineer will coordinate with the SHPO to seek ways to avoid or reduce effects on designated historic properties. At any time during CWA 404 permit processing, the district engineer may consult with the involved parties to discuss and consider possible alternatives or measures to avoid or minimize adverse effects of a proposed activity in accordance with the procedures described in 33 CFR Part 325, Appendix D. If the consultation results in a mutual agreement among the SHPO, the permit applicant, and the district engineer regarding the treatment of designated historic properties, then the district engineer may formalize that agreement either through special conditions added to the CWA 404 permit or by signing a Memorandum of Agreement (MOA) with these parties. Such a MOA will constitute the

comments of the SHPO and the ACHP. The criteria involved in making an adverse effect determination are described fully in 33 CFR Part 325, Appendix D.

The USACE district engineer, in accordance with 33 CFR 320.4, shall weigh all factors, including the effects of the undertaking on historic properties and any comments of the ACHP and the SHPO, and any views of other interested parties, in making a decision about a permit application. The district engineer will add permit conditions to avoid or reduce effects on historic properties that are determined necessary in accordance with 33 CFR 325.4. The district engineer will consider the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 Federal Register 44716) for making decisions. If permitting the project would cause irrevocable loss of important scientific, prehistoric, historical, or archeological data, the district engineer, in accordance with the Archeological and Historic Preservation Act, will advise the Secretary of the Interior of the extent of loss of data, implementation of plans to mitigate such a loss, and the inclusion of permit conditions for mitigation.

4.5.2.5 Confidentiality Restrictions

Sections 6253, 6254, and 6254.10 of the California Code authorize state agencies to exclude archaeological site information from public disclosure under the Public Records Act. In addition, the California Public Records Act (Government Code § 6250 et seq.) and California's open meeting laws (The Brown Act, Government Code § 54950 et seq.) protect the confidentiality of Native American cultural place information. Because the disclosure of information about the location of cultural resources is prohibited by the Archaeological Resources Protection Act of 1979 (16 U.S. Code 552 470hh) and Section 307103 of the NHPA, it is exempted from disclosure under Exemption 3 of the federal Freedom of Information Act (5 U.S. Code 552) Likewise, the Information Centers of the California Historical Resources Information System maintained by the Office of Historic Preservation prohibit public dissemination of records search information.

4.5.3 Environmental Setting

Elevations range from 3,000 to 3,200 feet above mean sea level. The Project Area is located in Campbell Gulch, a channel running roughly northeast to southwest and draining to the west into New Bullard's Bar reservoir. To the northeast, the channel is bounded by the Sleighville Ridge. A narrow ledge separates this channel from the roughly parallel Oregon creek to the southeast. These channels are tributaries to the middle fork of the Yuba River.

The NRCS Web Soil Survey (2023) indicates that the Project Area is located on Jocal-Sites Mariposa Complex soils and Sites-Jocal complex soils. The eastern and middle Project Area are composed of Sites-Jocal Complex soils, 2 to 30 percent slopes; this soil type is well-drained and is composed of 55 percent Jocal clay loam, 35 percent Jocal loam, and 10 percent minor constituents. This soil typically has a profile consisting of clay loam from the surface to about 9 inches deep, followed by a layer of clay from 9 inches to 45 inches deep, with a final layer of weathered bedrock from about 45 to about 55 inches deep. Paralithic bedrock is the restrictive layer, usually encountered between 45 to 60 inches deep. The water table is typically 80 inches deep or deeper. The western Project Area is composed of Jocal-Sites-Mariposa Complex soil, 2 to 30 percent slopes. This soil consists of 50 percent sites clay loam and similar soils, with

20 percent mariposa gravelly loam, 15 percent similar soils, and 15 percent minor components. The parent material for this soil is metasedimentary alluvium. A typical profile consists of loam from the surface to about 18 inches deep, followed by clay loam from about 18 inches to about 70 inches deep; below that is un-weathered bedrock from about 70 to 80 inches deep.

According to Saucedo and Wagner (1992), the geology of the Project Area is composed primarily of metavolcanic rocks from the Miocene to Pliocene era.

While areas along perennial water ways, such as Campbell Gulch, generally have an increased potential for containing buried pre-contact archaeological sites due to the presence of alluvium and the likelihood of pre-contact archaeological sites located along perennial waterways. However, Campbell Gulch, due to the steep hills on either side of the channel, the alluvial deposits left by flood events, would also be washed back into the waterway during rain events. Therefore, the overall likelihood of buried deposits is low (ECORP 2023c).

4.5.3.1 Area of Potential Affects

The Area of Potential Effects (APE) consists of the horizontal and vertical limits of a project and includes the area within which significant impacts or adverse effects to Historical Resources or Historic Properties could occur as a result of the project. The APE is defined for projects subject to regulations implementing Section 106 (federal law and regulations). For projects subject to the CEQA review, the term Project Area is used rather than APE. The terms Project Area and APE are interchangeable for the purpose of this document.

The horizontal APE consists of all areas where activities associated with a project are proposed and, in the case of this project, equals the Project Area subject to environmental review under the NEPA and CEQA. This includes areas proposed for demolition, vegetation removal, construction, grading, trenching, stockpiling, staging, paving, directional drilling, and other elements in the official Project description. The horizontal APE is illustrated in Figure 1 of Appendix D and represents the survey coverage area.

The vertical APE is described as the maximum depth below the surface to which excavations for project foundations and facilities will extend. Therefore, the vertical APE for this project includes all subsurface areas where archaeological deposits could be affected. The subsurface vertical APE varies across the project. This study assumes the depth of ground disturbance will not exceed 20 feet below the current surface, and therefore, a review of geologic and soils maps was necessary to determine the potential for buried archaeological sites that cannot be seen on the surface.

The vertical APE also is described as the maximum height of structures that could impact the physical integrity and integrity of setting of cultural resources, including districts and traditional cultural properties. For this Project, the above-surface vertical APE is assumed to be up to 50 feet above the surface based on similar water control structures.

4.5.3.2 Records Search

The records search consisted of a review of previous research and literature, records on file with the North-Central Information Center for previously recorded resources, and historical aerial photographs and maps of the vicinity.

After the original records search request was submitted, the Client submitted a new, larger Proposed Project Area to ECORP. This new Proposed Project Area falls within the original 0.5-mile search radius; therefore, any previously recorded resources and reports would be found by the original records search results. Thus, the current records search data will be adequate for this document.

Previous Research

Thirteen previous cultural resource investigations have been conducted in or within a 0.5-mile radius of the property, covering 100 percent of the total area surrounding the property within the records search radius (Table 4.5-1). Of the 13 studies, three were conducted within the current Project Area and the other ten were within the original 0.5-mile radius. Table 4.5-1 lists the reports located within 0.5 mile of the original Project Area. These studies revealed the presence of pre-contact sites, including lithic scatters, habitation sites, and caves, and historical sites, including historic trails, historic roads, a historic highway, a water box, and Tribal Historic Properties. The previous studies were conducted between 1984 and 2022 and vary in size from 1.3 acres to 296 linear miles.

Table 4.5-1. Previous Cultural Studies In or Within 0.5 Mile of the Project Area

Report Number	Author(s)	Report Title	Year	Includes Portion of the Project Area?
000835	Lisa Shapiro	Cultural Resources Investigation for the Camptonville Water Project, Yuba County, California.	1990	Yes
008310	Ronald Hutchinson	Confidential Archaeological Addendum for Timber Operations on Non Federal Lands in California for Brown THP	2002	No
008313	Andrew Funk	Archaeological and Historical Resources Survey and Impact Assessment for Seghezzi-Roadhouse Timber Harvesting Plan 2-96-236-YUB(3)	1996	No
008317	Hollis Day	Archaeological and Historical Resources Survey and Impact Assessment for Cambell Gulch Timber Harvest Plan	1995	No
008338	Jeff Haney	Negative Historical Resource Compliance Report 03-YUB-49 K.P. 9.51 (P.M. 5.91) Culvert Repair	2002	No
008339	Kevin Whitlock	Confidential Archaeological Addendum for Timber Operations on Non-Federal Lands in California for Harvey Timber Harvesting Plant	2002	No

Table 4.5-1. Previous Cultural Studies In or Within 0.5 Mile of the Project Area

Report Number	Author(s)	Report Title	Year	Includes Portion of the Project Area?
008403	Dennis Stevens	Jaybird Timber Sale	1997	Yes
008435	Terry Rogers	Archaeological and Historical Resources Survey and Impact Assessment for Bamback Timber Harvesting Plan	1996	No
008461	Dana Supernowicz	Determination of Eligibility of the Camptonville Ranger Station Tahoe National Forest (FS-05-03-1753-443)	1984	Yes
009326	Laura Leach-Palm, Bryan Larson, Paul Brandy, Jay King, Lindsay Hartman, and Pat Mikkelsen	Cultural Resources Inventory of Caltrans District 3 Rural Conventional Highways in Butte, Colusa, El Dorado, Glenn, Nevada, Placer, Sacramento, Sierra, Sutter, Yolo, and Yuba Counties	2008	No
010805	David Levy and Lucky Gillett	Archaeological and Historical Resources Survey and Impact Assessment a Supplemental Report for a Timber Harvesting Plan; Pollack THP	1994	No
012797	Theadora Fuerstenberg	Cultural Resources Final Monitoring Report for the Caltrans Hazard Tree Removal Project in Placer, Nevada, and Yuba Counties	2019	No
013993	Annie Sherfield and Aaron Whitaker	*Pike City 11011 12kV EVM CT 2021 WP2*	2022	No

The results of the records search indicate that the entire Project Area has been previously surveyed for cultural resources, most recently in 1997; however, these studies were conducted by different consultants, between 39 and 23 years ago, and under obsolete standards. Therefore, ECORP conducted a pedestrian survey of the APE for the Project under current USACE protocols.

The records search also determined that eight previously recorded pre-contact and historic-era cultural resources are located within 0.5 mile of the original Project Area (Table 4.5-2). Of these, two are believed to be associated with pre-contact Native American occupation of the vicinity; six are historic-era sites, four of which are associated with early European-American transportation and water conveyance activities, one is mining related, and one that was classified as other. There are no previously recorded cultural resources within or adjacent to the Project Area.

Table 4.5-2. Previously Recorded Cultural Resources In or Within 0.5 Mile of the Project Area					
Site Number CA-YUB-	**Primary Number P-58-**	**Recorder and Year**	**Age/ Period**	**Site Description**	**Within Project Area?**
3	21	Lange 1952	Prehistoric	Camptonville Indian Caves	No
8	26	Grosscup 1952	Prehistoric	Prehistoric Site	No
-	1758	Squier 1954	Historic	Camptonville Trail	No
-	1774	Hollis, Les and Day 1995	Historic	Concrete Water Box	No
-	1775	Funk 1996	Historic	Historic State Hwy 49 and bridge	No
-	2622	Gillett and Levy 1994	Historic	Pollack THP, site #1	No
-	2623	Gillett and Levy 1994	Historic	Pollack THP, site #2	No
1691H	2646	Lichtenstein et al. 2008	Historic	Henness Pass Road	No

Map Review and Aerial Photographs

The review of historical aerial photographs and maps of the Project Area provide information on the past land uses of the property and potential for buried archaeological sites. This information shows the property was initially used for transportation. Following is a summary of the review of historical maps and photographs.

- The 1872 Bureau of Land Management (BLM) General Land Office (GLO) Plat Map for Township 18 North, Range 8 East depicts the Project Area as undeveloped land. The town of Camptonville is depicted west of the Project Area. A road is depicted going roughly east–west from Camptonville into the southwestern quarter of Section 1. Extreme errors are present in this original survey, making it impossible to prove if anything specific is within the limited Project Area. However, it does indicate historic use of the pass as a roadway, and agricultural use of areas near the Project Area. The roads are likely precursors to the present-day Mountain House Road.
- The 1888 U.S. Geological Survey (USGS) Smartsville, California (1:125,000) depicts Camptonville and Campbell's Gulch. A winding roadway indicates the precursor to Mountain House Road adjacent to the Project Area. A line represents the waterway of Campbell's Gulch in the middle Project Area but is not labeled. New editions of this map were published regularly with few changes as recently as 1909. The 1917 edition adds an outline for Camptonville. This serves as the basis for subsequent USGS maps, which do not show any significant changes near the Project Area until 1948.
- The 1948 and 1950 USGS Camptonville, California topographic quadrangle maps (1:24,000) depict the channel for Campbell Gulch through the eastern and middle Project Areas. An unimproved roadway crosses the middle Project Area. A utility line, which runs over the western Project Area is depicted on the map. Outside of the Project Area, the present-day roadway Mountain Pass Road

is clearly depicted. To the west of the middle Project Area, a driveway connected to an unimproved road within the Project Area is visible. In the vicinity, Sleighville Ridge and a reservoir are visible.

- The 1963 BLM GLO Plat Map for Township 18 North, Range 8 East shows a winding mountain road labeled Sleighville Road Adjacent to the Project Area the southwestern and northwestern quarters of Section 1. The alignment of this road matches the present-day alignment of Mountain House Road. The western edge of the map depicts Campbell Gulch, but this feature is not depicted in-detail within the Project Area.
- Aerial photographs from 1969 show Campbell Gulch running through the eastern Project Area. The utility line depicted in the western Project Area on the 1948 and 1950 USGS maps is not visible. Mountain House Road, Mackey Lane, and the two structures just outside the middle Project Area are visible outside of the Project Area.
- Aerial photographs from 1984 show the utility line that runs through the western Project Area. Another utility line appears south of the middle Project Area, running through the middle Project Area, and connects to the northwest of the Project Area. The area between the eastern and middle Project Areas is meadowlands.
- Aerial photographs from 1993 show that the western Project Area has been cleared. The water tanks that are present in the western Project Area, are visible in modern photographs.
- The 1995 USGS Camptonville, California topographic quadrangle map (1;24,000) depicts a private driveway within the middle Project Area. In the western Project Area, Mackey Lane is depicted in its present-day configuration. An unimproved road south of the intersection of Mackey Lane and Mountain House Road is shown running to the northeast through the western Project Area.
- All other maps and aerial photographs from 1995 to 2020 depict the Project Area in its current configuration.

In sum, the area around Project Area has been used for agriculture and as a thoroughfare since at least 1872.

Sacred Lands File Coordination Methods

A search of the Sacred Lands File by the Native American Heritage Commission (NAHC) failed to indicate the presence of Native American cultural resources in the Project Area. A record of all correspondence is provided in Appendix D.

Other Interested Party Consultation Methods

ECORP has not received any responses to the letter sent to the Camptonville Historical Society as of the date of the preparation of this document (ECORP 2023c).

4.5.3.3 Field Survey

ECORP surveyed the Project Area for cultural resources on August 9, 2023. The eastern Project Area features gravel roads, pine-covered ground, and a modern diversion ditch (Figure 3 of Appendix D). The middle Project Area features pine-covered ground, and a gravel road (Figure 4 of Appendix D). The western Project Area features a modern water tank and storage building (Figure 5 Appendix D). All ground surfaces were composed of levelled terrain covered in gravel to serve as roads or parking spaces. Gravel covering the western Project Area and parts of the middle Project Area resulted in 0 percent ground visibility. The eastern Project Area and unpaved parts of the middle Project Area were partially covered by leaf litter, providing 40 to 60 percent ground visibility. The creek bed was exposed, revealing stratigraphic layers that did not indicate any evidence of subsurface deposits or buried cultural features. Modern trash covered portions of the middle Project Area. A roadway depicted on historic maps does cross the middle Project Area; however, this roadway appears to have been graded and covered in gravel within modern times. Because the Project will be using the existing roadways for access only and will not conduct any modification of the roadways, ECORP did not record them.

4.5.3.4 Potential Cultural Resources

As a result of previous investigations by other firms, no cultural resources were recorded within the APE. The 2023 survey by ECORP did not identify any new cultural resources within the Project Area. The Project Area contains a roadway noted on historic maps. However, ECORP did not record or evaluate this roadway because the Project intends to use all roadways solely for access, without modification. The surface layers of the roadway have layers of modern grading and gravel covering any older surface treatments.

4.5.3.5 Pre-Contact History

Regional

It is generally believed that human occupation of California began at least 10,000 years Before Present (BP). The archaeological record indicates that between approximately 10,000 and 8,000 BP, a predominantly hunting economy existed, characterized by archaeological sites containing numerous projectile points and butchered large animal bones. Animals that were hunted probably consisted mostly of large species still alive today. Bones of extinct species have been found but cannot definitively be associated with human artifacts.

Around 8,000 BP, there was a shift in focus from hunting toward a greater reliance on plant resources. Archaeological evidence of this trend consists of a much greater number of milling tools (e.g., metates and manos) for processing seeds and other vegetable matter. This period, which extended until around 5,000 years BP, is sometimes referred to as the Millingstone Horizon.

In sites dating to after about 5,000 BP, archaeological evidence indicates that reliance on both plant gathering and hunting continued as in the previous period, with more specialized adaptation to particular environments. Mortars and pestles were added to metates and manos for grinding seeds and other vegetable material (ECORP 2023c).

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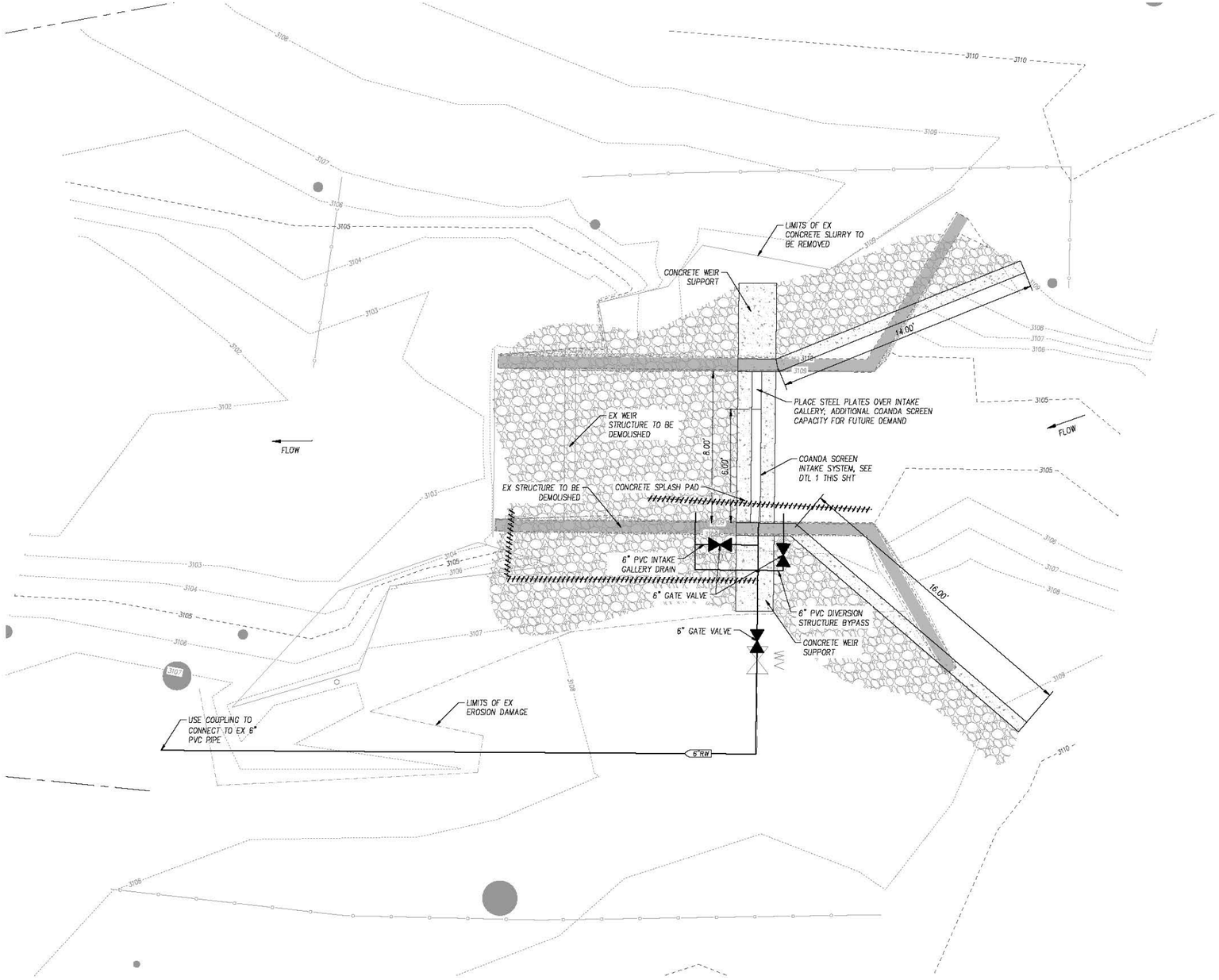
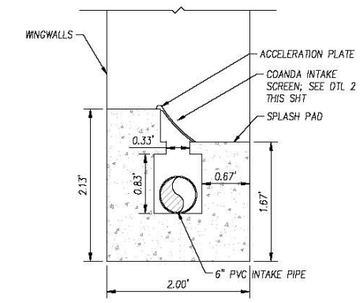
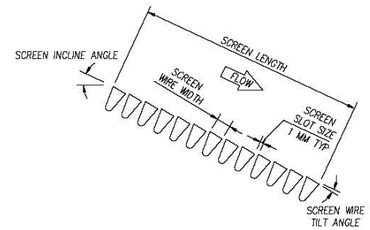
NOTES:

1. CONTRACTOR SHALL PROTECT ALL STRUCTURES AND TREES IN PLACE UNLESS OTHERWISE INDICATED.
2. CONTRACTOR SHALL VERIFY ALL UTILITIES PRIOR TO COMMENCING ALL WORK.
3. EX STRUCTURE SHALL BE DEMOLISHED.
4. CONTRACTOR SHALL ESTABLISH A COFFER DAM AND BYPASS PUMPING PRIOR TO COMMENCING ALL WORK.
5. ALL EX EROSION DAMAGE SHALL BE REPAIRED. SOIL IMPORT MAY BE NECESSARY TO FILL VOIDS.
6. ADDITIONAL RIPRAP MAY BE NECESSARY ONCE THE EX STRUCTURE IS REMOVED AND CONDITIONS ARE FURTHER ASSESSED.





1 - **COANDA INTAKE SYSTEM SECTION VIEW**
SCALE: NTS



2 - **COANDA INTAKE SCREEN DETAIL**
SCALE: NTS

NO.	REVISIONS	BY	DATE
1			
2			
3			
4			
5			
6			

BENCH MARK ELEV : XX DATUM : XX
DESCRIPTION :
X
X
X
X
X
X

DESIGN BY :	D.HARDEN
DRAWN BY :	K.SETHARES
CHECKED BY :	M.MASSARO
SCALE :	1" = 3'
DATE :	10/8/2020
PROJ NO. :	20109

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

30% SUBMITTAL
NOT FOR CONSTRUCTION
OCTOBER 2020

BEN|EN
TRUSTED ENGINEERING ADVISORS

Bennett Engineering Services
1082 Sunrise Avenue, Suite 100
Roseville, California 95661
T 916.783.4100
F 916.783.4110

CAMPBELL GULCH DIVERSION STRUCTURE REPAIR

SITE PLAN

CAMPTONVILLE COMMUNITY SERVICES DISTRICT — CALIFORNIA

C-1
2 OF 3

Login Name: bethorne
Date and Time Plotted: Oct 08, 2020 - 3:44 pm Plot Style: ###
File Name: P:\Proj\20109-Camptonville CSD-Campbell Gulch Diversion Structure Repair\03-PLANS\MASTERS\SHEETS\20109_02-C1 - SITE PLAN.dwg
XREFS: IBEX-20109_H_22x34 | 20109_XR-BASEMAP | 20109_XR-TOPO | 20109_XR-SITE

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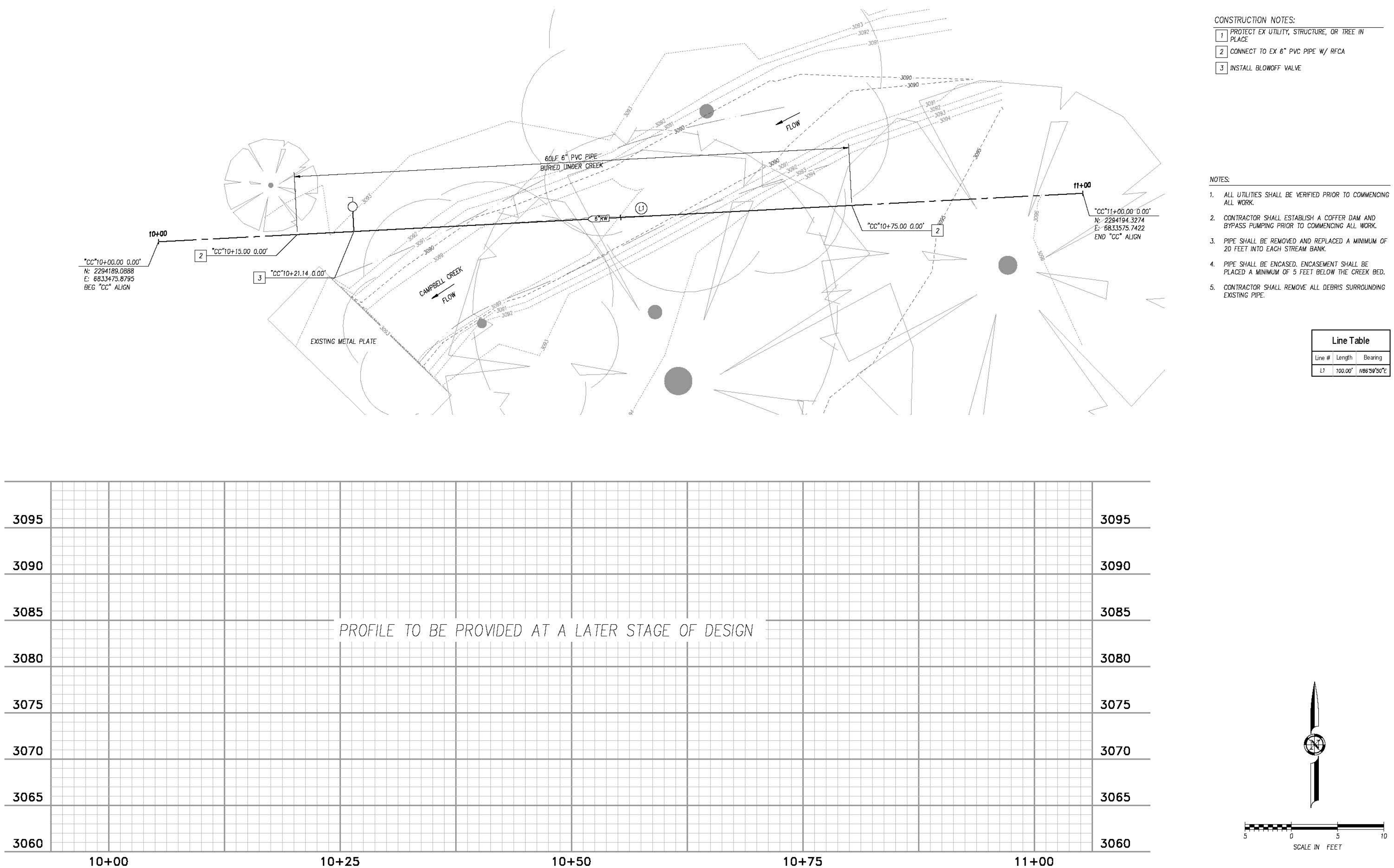
CONSTRUCTION NOTES:
1 PROTECT EX UTILITY, STRUCTURE, OR TREE IN PLACE
2 CONNECT TO EX 6" PVC PIPE W/ RFCA
3 INSTALL BLOWOFF VALVE
NOTES:
1. ALL UTILITIES SHALL BE VERIFIED PRIOR TO COMMENCING ALL WORK.
2. CONTRACTOR SHALL ESTABLISH A COFFER DAM AND BYPASS PUMPING PRIOR TO COMMENCING ALL WORK.
3. PIPE SHALL BE REMOVED AND REPLACED A MINIMUM OF 20 FEET INTO EACH STREAM BANK.
4. PIPE SHALL BE ENCASED. ENCASEMENT SHALL BE PLACED A MINIMUM OF 5 FEET BELOW THE CREEK BED.
5. CONTRACTOR SHALL REMOVE ALL DEBRIS SURROUNDING EXISTING PIPE.
Line Table
Line # | Length | Bearing
L1 | 100.00' | N86°59'50"E
60LF 6" PVC PIPE BURIED UNDER CREEK
FLOW
CAMPBELL CREEK
EXISTING METAL PLATE
10+00
"CC"10+00.00 0.00'
N: 2294189.0888
E: 6833475.8795
BEG "CC" ALIGN
"CC"10+15.00 0.00'
"CC"10+21.14 0.00'
"CC"10+75.00 0.00'
11+00
"CC"11+00.00 0.00'
N: 2294194.3274
E: 6833575.7422
END "CC" ALIGN
6"RW
L1
PROFILE TO BE PROVIDED AT A LATER STAGE OF DESIGN
3095
3090
3085
3080
3075
3070
3065
3060
10+00
10+25
10+50
10+75
11+00
SCALE IN FEET

NO.	REVISIONS	BY	DATE

BENCH MARK ELEV: XX DATUM: XX
DESCRIPTION:

DESIGN BY:	D.HARDEN
DRAWN BY:	K.SETHARES
CHECKED BY:	M.MASSARO
SCALE:	H:1"=5'; V:1"=5'
DATE:	10/8/2020
PROJ NO.:	20109

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

30% SUBMITTAL
NOT FOR CONSTRUCTION
OCTOBER 2020

BEN|EN
TRUSTED ENGINEERING ADVISORS

Bennett Engineering Services
1082 Sunrise Avenue, Suite 100
Roseville, California 95661
T 916.783.4100
F 916.783.4110

CAMPBELL GULCH DIVERSION STRUCTURE REPAIR

PLAN & PROFILE
STA 10+00 to STA 11+00

CAMPTONVILLE COMMUNITY SERVICES DISTRICT — CALIFORNIA

C-2
3 OF 3

Figure 6. Transmission Pipeline Site Plan

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2023-147 CCSD Campbell Gulch Diversion Structure Repair Project

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Existing Wooden Diversion Structure

Existing Transmission Pipeline

Figure 7. Existing Diversion Structure and Transmission Pipeline Photos

Ethnography

When European-Americans first arrived in the region, indigenous groups speaking more than 100 different languages and occupying a variety of ecological settings inhabited California.

When the first European explorers entered the regions between 1772 and 1821, an estimated 100,000 people, about 1/3 of the state's native population, lived in the Central Valley. At least seven distinct languages of Penutian stock were spoken among these populations: Wintu, Nomlaki, Konkow, River Patwin, Nisenan, Miwok, and Yokuts. Common linguistic roots and similar cultural and technological characteristics indicate that these groups shared a long history of interaction. The Central area encompasses the current Project Area and includes the Nisenan and Konkow.

Ethnographically, the Project Area is in the southwestern portion of the territory occupied by the Penutian-speaking Nisenan. Nisenan inhabited the drainages of the Yuba, Bear, and American rivers, and the lower reaches of the Feather River, extending from the east banks of the Sacramento River on the west to the mid to high elevations of the western flank of the Sierra Nevada to the east (ECORP 2023c). The territory extended from the area surrounding the current City of Oroville on the north to a few miles south of the American River in the south. The Sacramento River bounded the territory on the west, and in the east, it extended to a general area located within a few miles of Lake Tahoe.

Project Area History

The first route near what is now Camptonville was the Henness Pass Trail, a trail established in 1849 by Patrick Henness and his partner Jackson as an alternative to the Donner Pass. Miners regularly traveled through the area, and some prospected along the trail. From 1850 to 1851, prospectors identified a number of gold deposits along the trail, leading to a few nearby boom towns. The area of Gold Hill (now Camptonville) began to slowly develop to cater to the influx of prospectors. Robert Campton, a blacksmith, arrived in the town during this time to capitalize on the gold discovery (ECORP 2023c).

By 1852, the Henness Pass Trail was widened, with the hope that an improved route would attract more settlers into Yuba and Nevada counties, California. The Henness Pass Trail soon proved to be an important overland route from Sacramento to the Comstock Lode in Nevada, ensuring regular traffic to towns on the main road. By 1854, Robert Campton established a post office, named after himself, and a toll road through Camptonville. The town prospered further with added service by the California Stage Company. Additional gold strikes nearby led Camptonville to become a center for mining supplies throughout the 1860s, with a focus on hydraulic mining equipment emerging by 1866. However, by 1869, the Transcontinental Railroad was completed, siphoning transcontinental traffic away from the Henness Pass Trail, which remained open, but was used only by local traffic, leading many towns on the route to stagnate or return their focus to mining (ECORP 2023c).

In 1878, while in Camptonville, Lester A. Pelton invented a more efficient water wheel, capable of achieving efficiencies of 90%, rather than the maximum efficiency of 40% achievable by older water wheels. The Pelton wheel has been frequently used either to directly power machinery, or to generate electricity ever since. Pelton helped to develop other hydraulic devices, making Camptonville a hub of

hydraulic mining operations. Several nearby tertiary gravel deposits were processed using hydraulic methods, including nearby Young's Hill, Weed's Point, and Galena Hill (ECORP 2023c).

Camptonville burnt to the ground multiple times during the historic period. None of the original structures have survived. Since 1929, Masonic groups and E. Clampus Vitus have erected historic monuments around town, including one for Lester Pelton's water wheel, Robert Campton, and William Bull Meek, a Wells Fargo stagecoach driver. Today, the original Masonic Lodge in town is used as the Camptonville Community Center (ECORP 2023c).

4.5.4 Cultural Resources (V) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐

Less Than Significant With Mitigation Incorporated.

As discussed previously, the results of the records search indicate that the entire Project Area has been previously surveyed for cultural resources, most recently in 1997; however, these studies were conducted by different consultants. Therefore, ECORP conducted a pedestrian survey of the APE for the Project under current USACE protocols.

The records search also determined that eight previously recorded pre-contact and historic-era cultural resources are located within 0.5 mile of the original Project Area. Of these, two are believed to be associated with pre-contact Native American occupation of the vicinity; six are historic-era sites, four of which are associated with early European-American transportation and water conveyance activities, one is mining related, and one that was classified as other. There are no previously recorded cultural resources within or adjacent to the Project Area.

Conclusions

The records search and the 2023 survey did not yield any historic-period or pre-contact cultural resources within the Project Area. Therefore, no known Historic Properties under Section 106 of the NHPA or Historical Resources under CEQA will be affected by the Proposed Project. However, there always remains the potential for ground-disturbing activities to expose previously unrecorded historic resources. As such, mitigation measure CUL-1 is required to reduce potential historic resource impacts to a less than significant level.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐

Less Than Significant Impact.

Historic-era resources would not likely be deeply buried, but instead, would manifest themselves on the surface (and, hence, be detectable through standard survey). For pre-contact archaeological sites, the soil types present within the Project Area, and the steep topography, suggest limited shallow alluvial sediments that would be washed away by annual rain events and are unlikely to contain pre-contact cultural resources.

While Campbell Gulch is present within the Project Area and given the likelihood of pre-contact archaeological sites located along perennial waterways, such as the two previously recorded pre-contact archaeological sites revealed during the record search, the area has a likelihood for containing pre-contact resources. However, the two nearby sites are a cave dwelling site and a bedrock mortar with a lithic scatter visible on the surface. Therefore, given the low likelihood of the Project Area containing deep alluvial deposits, and the lack of visible archaeological resources on the surface, there exists a low potential for buried pre-contact archaeological sites within the Project Area. The likelihood is further reduced given the disturbance in the area associated with the exiting diversion structure and construction of the associated pipeline. There always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources. As such, mitigation measure CUL-1 is required to reduce potential historic resource impacts to a less than significant level.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Less Than Significant With Mitigation Incorporated.

No known burial sites were identified during the field survey. Although Native American burial sites have not been identified on the Project Site, there is a possibility that unanticipated human remains will be encountered during ground-disturbing project-related activities and as such, mitigation is required. With implementation of Mitigation Measure CUl-1, impacts to unknown human remains would be less than significant.

4.5.5 Mitigation Measures

CUL-1: If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead agencies. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines or a historic property under Section 106 NHPA, if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either:

    1. is not a Historical Resource under CEQA or a Historic Property under Section 106; or that

    2. the treatment measures have been completed to their satisfaction.

If the find includes human remains, or remains that are potentially human, they shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Sutter County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 will be implemented. If the coroner determines the remains are Native American and not the result of a crime scene, the coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the Project (Section 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (Section 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

Timing/Implementation: *During construction*

Monitoring/Enforcement: *Camptonville Community Services District*

4.6 Energy

California relies on a regional power system comprised of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. Natural gas provides California with a majority of its electricity followed by renewables, large hydroelectric and nuclear (California Energy Commission [CEC] 2021). Pacific Gas & Electric Company (PG&E) provides power to Yuba County, using a diverse portfolio of energy sources, including natural gas, hydropower, geo-thermal, nuclear, wind, and solar energies. PG&E service area spans over 70,000 square miles in the Northern California areas and provides about 5.2 million people with electricity and natural gas.

Potential energy-related impacts associated with this Project include the depletion of nonrenewable resources (e.g., oil, natural gas, coal) and emissions of pollutants during the construction. Since the Proposed Project is a diversion structure and water pipeline replacement, there will be no operational energy uses, and thus will not be discussed in this analysis. Discussion of the impact will focus on the single source of energy that is relevant to the Proposed Project: the equipment-fuel necessary for Project construction.

4.6.1 Energy Consumption

Electricity use is measured in kilowatt-hours (kWh). Natural gas is measured in therms. Vehicle fuel use is typically measured in gallons (e.g., of gasoline or diesel fuel), although energy use for electric vehicles is measured in kWh.

The electricity consumption and natural gas consumption associated with all land uses in the County of Yuba from 2017 to 2021 is shown in Table 4.6-1. As indicated, the demand for electricity has increased since 2017. In general, demand for natural gas has increased since 2017.

Table 4.6-1. Electricity Consumption in Yuba County 2017 – 2021

Year	Electricity Consumption (Kilowatt Hours)	Natural Gas Consumption (Therms)
2021	576,322,924	11,423,186
2020	567,007,959	10,643,275
2019	512,281,946	11,642,991
2018	504,468,917	11,678,258
2017	506,045,547	11,261,339

Source: California Energy Commission (CEC) 2023

Total automotive fuel consumption in Yuba County from 2018 to 2022 is shown in Table 4.6-2. As shown, automotive fuel consumption has decreased since 2018.

Table 4.6-2. Automotive Fuel Consumption in Yuba County 2018 – 2022	
Year	**Fuel Consumption (gallons)**
2022	31,340,047
2021	31,338,319
2020	27,734,496
2019	32,518,168
2018	31,975,545

Source: California Air Resources Board 2021

4.6.2 Energy (VI) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?	☐	☐	☒	☐

Less Than Significant Impact.

Operations of the Proposed Project would not result in the consumption of natural gas and thus, would not contribute to the County-wide usage. The new diversion structure would not require the use of electricity. The new water pipeline would require the use of electricity to pump water, however its consumption of electricity would be the same or only negligibly greater than currently consumed by pumping water in the existing water pipeline under current conditions. The one quantifiable source of energy associated with the Project includes the equipment fuel necessary for construction. Addressing energy impacts requires an agency to make a determination as to what constitutes a significant impact. There are no established thresholds of significance, statewide or locally, for what constitutes a wasteful, inefficient, and unnecessary consumption of energy for a proposed land use. For the purpose of this analysis, Project increases in construction fuel consumption are compared with the countywide fuel consumption in 2022, the most recent full year of data. The amount of total construction-related fuel used was estimated using ratios provided in the Climate Registry's General Reporting Protocol for the Voluntary Reporting Program, Version 3.0 (Climate Registry 2019).

Table 4.6-3. Proposed Project Energy and Fuel Consumption		
Energy Type	**Annual Energy Consumed**	**Percentage Increase Countywide**
Vehicular/Equipment Fuel Consumption		
Project Construction	17,143 gallons	0.05

Source: Climate Registry 2019, see Appendix E.
Notes: The Project increase construction-related fuel consumption is compared with the countywide construction related fuel consumption in 2022, the most recent full year of data.

As shown in Table 4.6-3, the Project's gasoline fuel consumption during the construction period is estimated to be 17,143 gallons of fuel, which would increase the annual gasoline fuel use in the county by 0.05 percent during Project construction. As such, Project construction would have a nominal effect on local and regional energy supplies, especially over the long-term. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency combined with state regulations limiting engine idling times and require recycling of construction debris, would further reduce the amount of transportation fuel demand during Project construction. For these reasons, it is expected that construction fuel consumption associated with the Project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

Since the Proposed Project is a diversion structure and water pipeline replacement, there will be no operational energy uses beyond existing conditions.

For these reasons, this impact would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

No Impact.

The Proposed Project is the demolition and replacement of a diversion structure and replacement of a segment of a water conveyance pipeline within unincorporated Yuba County. The Project does not include the provision of new buildings or any other substantial energy consuming components. The Project does not conflict with or obstruct a plan for renewable energy or energy efficiency. No impact would occur.

4.6.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.7 Geology and Soils

4.7.1 Environmental Setting

The Project Area is situated on the western slopes of the Sierra Nevada Mountains above the northern Sacramento Valley, nestled among steeply climbing slopes and deep ravines. Elevations in the Project Area range from 3,105 feet at the westernmost Site containing the exposed transmission pipe creek crossing to 3,140 feet AMSL at the diversion structure location in the easternmost portion of the Project Site.

4.7.1.1 Geomorphic Setting

The Project site is located in the northern portion of the Sierra Nevada geomorphic province of California. The Sierra Nevada province is a tilted fault block nearly 400 miles long. Its east face is a high, rugged

multiple scarp, contrasting with the gentle western slope (about 2°) that disappears under sediments of the Great Valley. Deep river canyons are cut into the western slope. Their upper courses, especially in massive granites of the higher Sierra, are modified by glacial sculpturing, forming such scenic features as Yosemite Valley. The high crest culminates in Mt. Whitney with an elevation of 14,495 feet above sea level near the eastern scarp. The metamorphic bedrock contains gold bearing veins in the northwest trending Mother Lode. The northern Sierra boundary is marked where bedrock disappears under the Cenozoic volcanic cover of the Cascade Range (California Geological Survey [CGS] 2002).

Site Geology

According to the (CGS 2016), the Project Site is underlain by the Marine sedimentary and metasedimentary rocks from the Paleozoic era. These undivided Paleozoic metasedimentary rocks include slate, sandstone, shale, chert, conglomerate, limestone, dolomite, marble, phyllite, schist, hornfels, and quartzite.

Site Soils

According to the NRCS through the Web Soil Survey database, the Project Site is composed of the Sites-Jocal complex soil unit, with 2 to 30 percent slope and Sites-Jocal-Mariposa complex, 30 to 50 percent slopes as shown in Table 4.7-1. The Web Soil Survey also identifies drainage, flooding, erosion, runoff, and the linear extensibility potential for the Project soils. According to this survey, the Project soil is well-drained, has moderate runoff potential, and no rating for flooding frequency. Thes soils have a severe erosion rating and a moderate linear extensibility (shrink-swell) (NRCS 2023).

Table 4.7-1. Project Area Soil Characteristics

Soil Name, Symbol	Percentage of Site	Drainage	Flooding Frequency Class	Erosion Hazard[1]
Sites-Jocal complex, 2 to 30 percent slopes	83	Well-drained	None	Severe
Sites-Jocal-Mariposa complex, 30 to 50 percent slopes	17	Well-drained	None	Severe
–	**Runoff Potential[2]**	**Linear Extensibility (Rating)[3]**	**Frost Action[4]**	
Sites-Jocal complex, 2 to 30 percent slopes	C (Moderate)	4.5% (moderate)	Low	
Sites-Jocal-Mariposa complex, 30 to 50 percent slopes	C (Moderate)	4.5% (moderate)	Low	

Table 4.7-1. Project Area Soil Characteristics

Soil Name, Symbol	Percentage of Site	Drainage	Flooding Frequency Class	Erosion Hazard[1]

Source: Natural Resources Conservation Service (NRCS) 2023

Notes:

1. The ratings are both verbal and numerical. The hazard is described as *slight*, *moderate*, *severe*, or *very severe*. A rating of *slight* indicates that erosion is unlikely under ordinary climatic conditions; *moderate* indicates that some erosion is likely and that erosion-control measures may be needed; *severe* indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised; and *very severe* indicates that significant erosion is expected, loss of soil productivity and offsite damage are likely, and erosion-control measures are costly and generally impractical.
2. Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation.
   Group A: Soils having a high infiltration rate (low runoff potential) when thoroughly wet.
   Group B: Soils having a moderate infiltration rate when thoroughly wet.
   Group C: Soils having a slow infiltration rate when thoroughly wet.
   Group D: Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet.
3. Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent, moderate if 3 to 6 percent, high if 6 to 9 percent, and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design is commonly needed.
4. Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

4.7.1.2 Regional Seismicity and Fault Zones

In California, special definitions for active faults were devised to implement the Alquist-Priolo Earthquake Fault Zoning Act of 1972, which regulates development and construction in order to avoid the hazard of surface fault rupture. The State Mining and Geology Board established policies and criteria in accordance with the act. The board defined an active fault as one that has had surface displacement within Holocene time (about the last 11,000 years) (USGS 2023b). A potentially active fault was considered to be any fault that showed evidence of surface displacement during Quaternary time (last 1.6 million years). Because of the large number of potentially active faults in California, the State Geologist adopted additional definitions and criteria in an effort to limit zoning to only those faults with a relatively high potential for surface rupture. Thus, the term *sufficiently active* was defined as a fault for which there was evidence of Holocene surface displacement. This term was used in conjunction with the term well-defined, which relates to the ability to locate a Holocene fault as a surface or near-surface feature (CGS 2018).

According to the DOC Data Viewer interactive mapping program (2023b), the closest earthquake fault to the Project Site is the Foothill Fault Zone (located just south of Lake Oroville and approximately 23 miles west of the Site) and is listed as a Historic era fault, making it active within the last 150 years.

Paleontological Resources

A search was completed of the University of California Museum of Paleontology (UCMP) paleontological records on July 20th in 2023. The search included a review of the institution's paleontology specimen collection records for Yuba County, including the Project area and vicinity. In addition, ECORP conducted a query of the UCMP catalog records; a review of regional geologic maps from the California Geological Survey; a review of local soils data; and a review of existing literature on paleontological resources of Yuba County. The purpose of the assessment was to determine the sensitivity of the Project area, whether or not known occurrences of paleontological resources are present within or immediately adjacent to the Project area, and whether or not implementation of the project could result in significant impacts to paleontological resources. Paleontological resources include mineralized (fossilized) or unmineralized bones, teeth, soft tissues, shells, wood, leaf impressions, footprints, burrows, and microscopic remains.

The results of the search of the UCMP indicated that multiple paleontological specimens were recorded from 3 identified localities Yuba County. Paleontological resources in Yuba County include fossilized remains of plants and invertebrates. None of the identified sites are within the Project vicinity (UCMP 2023).

4.7.2 Geology and Soils (VII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause 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?	☐	☐	☒	☐

a) Less Than Significant Impact.

i) No Impact.

The Proposed Project Site is not located within an Alquist-Priolo Earthquake Zone (DOC 2023b). There would be no impact related to fault rupture.

ii) Less Than Significant Impact.

The Project includes the demolition and replacement of an existing creek diversion structure, removing a segment of exposed pipeline and installing approximately 60 feet of 6-inch diameter PVC water conveyance pipeline buried a minimum of 5 feet below the creek bed to protect the transmission line from the migration of large rocks and debris during future high flow events. Offsite work includes improvements to the Site access road in order to provide workers with a safe, reliable route to the Project Site. All new infrastructure would be required to comply with the current State code, including any required seismic mitigation standards. Because of the required compliance with seismic mitigation standards, the Proposed Project would have a less than significant impact related to strong ground shaking.

iii) Less Than Significant Impact.

Liquefaction occurs when loose sand and silt saturated with water behaves like a liquid when shaken by an earthquake. Liquefaction can result in the following types of seismic-related ground failure:

- Loss of bearing strength – soils liquefy and lose the ability to support structures,
- Lateral spreading – soils slide down gentle slopes or toward stream banks,
- Flow failures – soils move down steep slopes with large displacement,
- Ground oscillation – surface soils, riding on a buried liquefied layer, are thrown back and forth by shaking,
- Flotation – floating of light buried structures to the surface,
- Settlement – settling of ground surface as soils reconsolidate, and
- Subsidence – compaction of soil and sediment.

Liquefaction potential has been found to be greatest where the groundwater level and loose sands occur within a depth of about 50 feet or less. DOC provides mapping for the area susceptible to liquefaction in California. According to this mapping, the Project is not located in an area of liquefaction (DOC 2023b). As such, the Proposed Project would result in less than significant impacts in regards to seismic-related ground failure, including liquefaction.

iv) Less Than Significant Impact.

Although the Project is in an area with steep topography, Project activities will not disturb slopes, and all heavy equipment will operate from graded flat staging areas and access roads built for and used by heavy equipment. Thus, there is low potential for landslides. As such, the Project would have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

Less Than Significant Impact.

As shown in Table 4.6-1, the Project soils have a rating of 'severe' for erosion potential. Construction activities during the Project would disturb soils and potentially expose them to wind and water erosion. Because the Project is larger than 1 acre in area, the Project will be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) to comply with the Regional Water Quality Control Board's General Construction Storm Water Permit. The SWPPP includes pollution prevention measures (erosion and sediment control measures and measures to control non-stormwater discharges and hazardous spills), demonstration of compliance with all applicable local and regional erosion and sediment control standards, identification of responsible parties, and a detailed construction timeline. The SWPPP must also include implementation of BMPs to reduce construction effects on receiving water quality by implementing erosion control measures and reducing or eliminating non-stormwater discharges. Best Management Practices (BMPs) are included as part of the Project Site plans and would be implemented to manage erosion and the loss of topsoil during construction-related activities. Implementation of the Project's erosion control measures and any additional required BMPs would reduce soil erosion impacts to a less than significant impact.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐

Less Than Significant Impact.

As discussed previously, the Project Site has low potential for landslides.

Lateral spreading is a form of horizontal displacement of soil toward an open channel or other "free" face, such as an excavation boundary. Lateral spreading can result from either the slump of low cohesion and unconsolidated material or, more commonly, by liquefaction of either the soil layer or a subsurface layer underlying soil material on a slope, resulting in gravitationally driven movement. One indicator of potential lateral expansion is frost action. Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing (NRCS 2023). As indicated in Table 4.7-1, the Web Soil Survey identifies the Project Site as having a rating of 'low' for frost action potential. Additionally, as

discussed in Item a) iii) above, the Project Site is not identified as being in an area with a potential for liquefaction. As such, the potential for impacts due to lateral spreading would be less than significant.

With the withdrawal of fluids, the pore spaces within the soils decrease, leading to a volumetric reduction. If that reduction is significant enough over an appropriately thick sequence of sediments, regional ground subsidence can occur. This typically only occurs within poorly lithified sediments and not within competent rock.[2] No oil, gas, or high-volume water extraction wells are known to be present in the Project area. According to the USGS, the Project Site is not located in an area of land subsidence (USGS 2023a). The Project is the replacement of a diversion structure and minor improvements to the community of Camptonville's water transmission pipeline. All new infrastructure would be required to comply with the current State codes, including any required subsidence measures. As such, the potential for impacts due to subsidence would be less than significant.

Collapse occurs when water is introduced to poorly cemented soils, resulting in the dissolution of the soil cementation and the volumetric collapse of the soil. In most cases, the soils are cemented with weak clay (argillic) sediments or soluble precipitates. This phenomenon generally occurs in granular sediments situated within arid environments. Collapsible soils will settle without any additional applied pressure when sufficient water becomes available to the soil. Water weakens or destroys bonding material between particles that can severely reduce the bearing capacity of the original soil. The Project includes the demolition and replacement of a diversion structure, water transmission pipeline segments, and improvements to the associated facilities. Offsite work includes improvements to the Site access road in order to provide workers with a safe, reliable route to the Project Site. No large buildings or structures resulting in enormous weight and pressure on the soil surface are a part of the Proposed Project. As such, the Project Site soils would not become unstable as a result of the Project. The Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐

Less Than Significant Impact.

Expansive soils are types of soil that shrink or swell as the moisture content decreases or increases. Structures built on these soils may experience shifting, cracking, and breaking damage as soils shrink and subside or expand. Expansive soils can be determined by a soil's linear extensibility. There is a direct relationship between linear extensibility of a soil and the potential for expansive behavior, with expansive soil generally having a high linear extensibility. Thus, granular soils typically have a low potential to be expansive, whereas clay-rich soils can have a low to high potential to be expansive. The shrink-swell

[2] The processes by which loose sediment is hardened to rock are collectively called lithification.

potential is low if the soil has a linear extensibility of less than three percent, moderate if 3 to 6 percent, high if 6 to 9 percent, and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. As shown in Table 4.7-1, the linear extensibility value for the Site is 4.5 percent. Soils with linear extensibility in that range correlate to soils having a moderate expansion potential. However, no buildings or structures are a part of the Proposed Project. As such, the Proposed Project would not create a substantial risk to life or property. The Project would have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

No Impact.

The Project does not involve the development of a septic system to process wastewater. As such, the Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Less Than Significant With Mitigation Incorporated.

No paleontological resources sites were identified in the Project Area by the UCMP search. However, there is a possibility that unanticipated paleontological resources will be encountered during ground-disturbing Project-related activities. Therefore, mitigation is required to reduce this potential impact. As such, Mitigation Measure GEO-1 is included to reduce impacts to unknown paleontological resources to a less than significant level.

4.7.3 Mitigation Measures

GEO-1: If paleontological or other geologically sensitive resources are identified during any phase of project development, the construction manager shall cease operation at the site of the discovery and immediately notify the County of Yuba. The County shall retain a qualified paleontologist to provide an evaluation of the find and to prescribe mitigation measures to reduce impacts to a less-than-significant level. In considering any suggested mitigation proposed by the consulting paleontologist, the County shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs,

land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for paleontological resources is carried out.

Timing/Implementation: *During construction*

Monitoring/Enforcement: *Camptonville Community Services District*

4.8 Greenhouse Gas Emissions

Greenhouse Gas (GHG) emissions are released as byproducts of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities. This release of gases, such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and chlorofluorocarbons, creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as the greenhouse effect, human activities have accelerated the generation of GHGs beyond natural levels. The overabundance of GHGs in the atmosphere has led to an unexpected warming of the earth and has the potential to severely impact the earth's climate system. Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH_4 traps more than 25 times more heat per molecule than CO_2, and N_2O absorbs 298 times more heat per molecule than CO2. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e). Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

The significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. As previously described, Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7(c)). The FRAQMD has not adopted a GHG significance threshold. Thus, in the absence of any GHG emissions significance thresholds the projected emissions are compared to the GHG thresholds recommended by the Sacramento Metropolitan Air Quality Management District (SMAQMD), the air pollution control officer for Sacramento County. The SMAQMD thresholds of 1,100 metric tons of CO_2e annually for construction and 1,100 metric tons of CO_2e annually during operations are considered appropriate for the purposes of this analysis due to the proximities of Sacramento and Yuba counties and the similarities between both geomorphic and urban patterns of the two neighboring air district jurisdictions. Therefore, the threshold used to analyze the Project is specific to the analysis herein and the lead agency retains the ability to develop and/or use different thresholds of significance for other projects in its capacity as lead agency and recognizing the need for the individual threshold to be tailored and specific to individual projects.

In Center for Biological Diversity v. Department of Fish and Wildlife (2015) 62 Cal. 4th 2014, 213, 221, 227, following its review of various potential GHG thresholds proposed in an academic study [Crockett,

Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World (July 2011), 4 Golden Gate U. Envtl. L. J. 203], the California Supreme Court identified the use of numeric bright-line thresholds as a potential pathway for compliance with CEQA GHG requirements. The study found numeric bright line thresholds designed to determine when small projects were so small as to not cause a cumulatively considerable impact on global climate change was consistent with CEQA. Specifically, Public Resources Code section 21003(f) provides it is a policy of the state that "[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." The Supreme Court-reviewed study noted, "[s]ubjecting the smallest projects to the full panoply of CEQA requirements, even though the public benefit would be minimal, would not be consistent with implementing the statute in the most efficient, expeditious manner. Nor would it be consistent with applying lead agencies' scarce resources toward mitigating actual significant climate change impacts." (Crockett, Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World (July 2011), 4 Golden Gate U. Envtl. L. J. 203, 221, 227.)

4.8.1 Greenhouse Gas Emissions (VIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

Less Than Significant Impact.

A potent source of GHG emissions associated with the Proposed Project would be combustion of fossil fuels during construction activities. Construction-related activities that would generate GHG emissions include worker commute trips, haul trucks carrying supplies and materials to and from the Project Area, and off-road construction equipment (e.g., dozers, loaders, excavators). Table 4.8-1 illustrates the specific construction generated GHG emissions that would result from construction of the Project. Once construction is complete, the generation of these GHG emissions would cease.

Table 4.8-1. Construction-Related Greenhouse Gas Emissions

Emission Source	CO_2e (Metric Tons/Year)
Construction	174
Potentially Significant Impact Threshold	*1,100*
Exceed Significant Impact Threshold?	**No**

Table 4.8-1. Construction-Related Greenhouse Gas Emissions	
Emission Source	**CO_2e (Metric Tons/Year)**

Source: California Energy Estimator Modeling (CalEEMod) version 2022.1.1.14. Refer to Appendix A for Model Data Outputs.
Notes: Emission calculations account for the export of 5,556 cubic yards of soil material daily during the vegetation clearing and diversion structure/water pipeline removal phases and import of 6,152 cubic yards of soil material daily during the material import and diversion structure/water pipeline phase.

As shown in Table 4.8-1, Project construction would result in the generation of approximately 174 metric tons of CO_2e over the course of construction, which is below the significance threshold of 1,100 metric tons of CO_2e.

The Proposed Project is a diversion structure and water pipeline replacement and does not include an operational phase; therefore, there will be no operational GHG emissions. Once Project construction is complete, the generation of GHG emissions would cease. Impacts would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

No Impact.

The State of California promulgates several mandates and goals to reduce statewide GHG emissions, including the goals to reduce statewide GHG emissions to 40 percent below 1990 levels by the year 2030 (Senate Bill 32) and 80 percent below 1990 levels by 2050 (Executive Order S-03-05). The SMAQMD supports state policies to reduce levels of GHG emissions through its significance thresholds, and in the absence of a GHG thresholds established by Yuba County, the Proposed Project would comply with the SMAQMD's numeric, bright-line GHG threshold of 1,100 metric tons of CO_2e per year, which was developed in consideration of statewide GHG reduction goals. Furthermore, the Project would not include new permanent sources of GHG emissions and would not generate new or unplanned permanent GHG emissions. Therefore, the Project would not interfere with the state's goals of reducing GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050, as established in Senate Bill 32 and Executive Order S-03-05. These regulations require projects to comply with specific standards related to energy efficiency construction practices.

For these reasons, the Project would not conflict with any applicable plan, policy or regulation related to the reduction in GHG emissions.

4.8.2 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.9 Hazards and Hazardous Materials

4.9.1 Environmental Setting

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined by the California Health and Safety Code, Section 25501 as follows:

> "Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

A hazardous material is defined in Title 22, Section 662601.10, of the CCR as follows:

> A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.

The release of hazardous materials into the environment could potentially contaminate soils, surface water, and groundwater supplies.

Most hazardous materials regulation and enforcement in Yuba County, including those in the community of Camptonville, is managed by the Yuba County Certified Unified Program Agency, which manages the California Accidental Release Program under the direction of the California Office of Emergency Services. The Department is responsible for the Hazardous Materials Business Plan (HMP) Program, which is one program element within the Yuba County Certified Unified Program Agency. The HMP Program is administered throughout the County of Yuba and its cities. The purpose of the HMP Program is to protect public health and the environment and groundwater from risks or adverse effects associated with the storage of hazardous materials. Businesses must complete an HMP for the safe storage and use of chemicals.

Under Government Code Section 65962.5, both the California Department of Toxic Substance Control (DTSC) and the State Water Resources Control Board (SWRCB) are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. A search of the DTSC (2023) and SWRCB (2023) lists identified zero open cases of hazardous waste violations within the community of Camptonville and Project vicinity.

4.9.2 Hazards and Hazardous Materials (IX) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

Less Than Significant Impact.

The Project includes the demolition and replacement of a diversion structure, water transmission pipeline segments, and improvements to the associated facilities. Offsite work includes improvements to the Site access road in order to provide workers with a safe, reliable route to the Project Site. None of these Project components require the routine transport, use, or disposal of hazardous materials. The Proposed Project is anticipated to require the use of some hazardous materials such as diesel fuel and oil for construction vehicles/equipment used during construction. However, these materials would be stored in gas tanks and other containers designed for this use.

Additionally, the 2030 General Plan includes Policy HS7.1, which aims to protect County residents from the harmful effects of hazardous materials. Policy PS-4.1 is as follows:

> "The County will assess risks associated with public investments and other County-initiated actions, and new private developments shall assess and mitigate hazardous materials risks and ensure safe handling, storage, and movement in compliance with local, state, and federal safety standards."

Compliance with federal, state, and city requirements would reduce this potential impact to a less than significant impact during construction of the Project.

Once construction is completed, the Proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials as none will be required to operate the Project. Therefore, the Project would have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐

Less Than Significant Impact.

As discussed in Issue a), the Project would not result in the routine transport, use, disposal, handling, or emission of any hazardous materials that would create a significant hazard to the public or the environment. Potential construction-related hazards could be created during the course of Project construction at the site, given that construction activities involve the use of heavy equipment, which uses small and incidental amounts of oils and fuels and other potentially flammable substances. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials used during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, state, and federal law.

Because no hazardous materials would be used for operation of the Project, short-term construction and long-term operation impacts associated with handling, storing, and disposing of hazardous materials from project operation would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐

No Impact.

The Project Site is not located within 0.25 mile of any existing or proposed school. The Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

Under Government Code Section 65962.5, both the DTSC and the SWRCB are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. As discussed previously, a search of the DTSC and SWRCB lists identified no open cases of hazardous waste violations on the Project site. As a result, the Project would have no impact in this area.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 for people residing or working in the Project Area?	☐	☐	☐	☒

No Impact.

The nearest public airport to the Project Site is the Beale Airforce Base, located approximately 30.53 miles southwest of the Site. According to the Yuba County Airport Land Use Compatibility Plan (2010), the Proposed Project is neither located within the Airport Influence Area, nor within any land compatibility, overflight, or noise zones (Yuba County 2010). The Project includes the demolition and replacement of a diversion structure, water transmission pipeline segments, and improvements to the associated facilities. Offsite work includes improvements to the Site access road in order to provide a safe, reliable route to the Project Site. Implementation of the Project would not affect airport operations or result in airport safety hazards. As such, the Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project does not include any actions that would impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. Per 2030 General Plan Policy HS9.3, the County will coordinate with Caltrans to maintain the County's Highways, of which includes SR 49 that the Project Site is accessed via, as emergency access and evacuation routes. Through Policy HS9.4, the County's development and improvement standards will require a circulation system with multiple access points, adequate provision for emergency equipment access, and evacuation egress. While Project construction would involve construction activities within a street ROW, these will be identified ahead of construction and alternative emergency and evacuation routes, if needed, would be adjusted accordingly. Implementation of the Proposed Project would result in a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

No Impact.

The risk of wildfire is related to a variety of parameters, including fuel loading (i.e., vegetation), fire weather (i.e., winds, temperatures, humidity levels and fuel moisture contents), and topography (i.e., degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point, while fuels such as trees have a lower surface area-to-mass ratio and require more heat to reach the ignition point.

The Project Site lies in an area of very high wildfire risk, according to the California Department of Forestry and Fire Protection (CAL FIRE, 2007). The Project includes the demolition and replacement of a diversion structure, water transmission pipeline segments, and improvements to the associated facilities, with no structures proposed to be occupied, and no operational component included. Offsite work includes improvements to the Site access road in order to provide a safe, reliable route to the Project Site. Implementation of the Proposed Project would have a less than significant impact regarding wildland fires.

4.9.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.10 Hydrology and Water Quality

4.10.1 Environmental Setting

4.10.1.1 Regional Hydrology

Surface/Ground Water

The Project Site is located in the greater Sacramento River hydrologic region. The Sacramento River hydrologic region covers approximately 17.4 million acres (27,200 square miles). The Sacramento River Hydrologic Region includes the entire California drainage area of the Sacramento River (the state's largest river) and its tributaries. The region extends from Chipps Island in Solano County north to Goose Lake in Modoc County. It is bounded by the Sierra Nevada on the east, the Coast Ranges on the west, the Cascade and Trinity mountains on the north, and the Sacramento-San Joaquin River Delta on the south. The Sacramento River Basin begins in Oregon, north of Goose Lake, a near-sink that intercepts the Pit River drainage at the California-Oregon border. The region includes all or large portions of Modoc, Siskiyou, Lassen, Shasta, Tehama, Glenn, Plumas, Sacramento, Colusa, Sutter, Yuba, Sierra, Nevada,

Siskiyou, Sacramento, El Dorado, Yolo, Solano, Lake, and Napa counties. Small areas of Alpine and Amador counties are also within the region (Department of Water Resources 2013).

The Project is located within the Yuba River Watershed. The watershed covers approximately 1,340 square miles and ranges in elevations from 60ft AMSL at the Feather River near Yuba City on the Sacramento Valley floor to 9,148 ft AMSL on the west slopes of the Sierra Nevada Mountains at Donner Pass. The Yuba River has three forks: North, Middle, and South Yuba. The North and Middle Yuba Rivers come together below New Bullards Bar Reservoir and form the mainstem Yuba River. The Yuba River Watershed contains a significant amount of sediment and mercury because of hydraulic mining that occurred in the mid to late 1900s. Mercury is present in the bottoms of rivers and reservoirs and is transported by erosion processes and can be converted into methylmercury. As methylmercury accumulates in the food chain, it becomes concentrated, so that in larger predatory fish (e.g., trout and bass), concentrations can exceed levels of concern for human consumption. Findings in the most recent and comprehensive survey of fish in the Yuba River Watershed meet and exceed USEPA and Food and Drug Administration levels. Sediment loads in the watershed can be attributed to historical mining as well as recent human activities such as road construction associated with rural housing development, logging, and recreation. Temperature is also a significant water quality concern in the Yuba River Watershed. Warming water temperatures can be attributed to dams, water diversions, inadequate shading by limited riparian canopy, and low instream flows. (Sacramento River Watershed Program 2023).

4.10.1.2 Project Site Hydrology and Onsite Drainage

The Study Area is located within mountainous terrain of rural Yuba County situated at elevations ranging from approximately 3,010 to 3,140 feet AMSL in the Northern High Sierra Nevada subregion of the Sierra Nevada floristic region of California. According to the National Wetlands Inventory (NWI) (ECORP 2023b), Campbell Gulch is the only aquatic feature mapped within the Study Area (see Figure 2 of Appendix D). Campbell Gulch is classified as Palustrine Forested Seasonally Flooded according to the Cowardin Classification of Wetlands and Deepwater Habitats of the United States (Appendix D).

In the Project area, the rainy period of the year lasts for 6.0 months, from October 26 to April 25, with a greater than 18 percent chance of precipitation on any given day. The month with the most wet days in Nevada City is February, with an average of 9.5 days with at least 0.04 inches of precipitation. The drier season lasts 6.0 months, from April 25 to October 26. The month with the fewest wet days in Nevada City (the closest City to the Project Site with available climate data and similar geographical and topographical conditions) is July, with an average of 0.3 days with at least 0.04 inches of precipitation (Weatherspark 2023).

The FEMA Flood Insurance Rate Map for the Project Area (Map No. 06091C0525C) shows that the Project Site is in Zone X, meaning that the area is not in a flood hazard zone (FEMA 2023b).

4.10.2 Hydrology and Water Quality (X) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐

Less Than Significant Impact.

The Project Site consists of three locations: the diversion structure study area, the transmission pipeline replacement study area and the staging area study area, resulting in a total disturbance area of approximately 1.86-acre. In accordance with National Pollutant Discharge Elimination System (NPDES) regulations, the State of California requires that any construction activity affecting one acre or more obtain a General Construction Activity Stormwater Permit (General Permit) to minimize the potential effects of construction runoff on receiving water quality. Performance standards for obtaining and complying with the General Permit are described in NPDES General Permit No. CAS000002, Waste Discharge Requirements, Order No. 2009-0009-DWQ.

General Permit applicants are required to submit to the appropriate regional board Permit Registration Documents for the Project, which include a Notice of Intent (NOI), risk assessment, site map, signed certification statement, an annual fee, and a SWPPP. The SWPPP includes pollution prevention measures (erosion and sediment control measures and measures to control non-stormwater discharges and hazardous spills), demonstration of compliance with all applicable local and regional erosion and sediment control standards, identification of responsible parties, and a detailed construction timeline. The SWPPP must also include implementation of BMPs to reduce construction effects on receiving water quality by implementing erosion control measures and reducing or eliminating non-stormwater discharges.

Examples of typical construction best management practices included in SWPPPs include, but are not limited to, using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water; developing and implementing a spill prevention and cleanup plan; and installing sediment control devices such as gravel bags, inlet filters, fiber rolls, or silt fences to reduce or eliminate sediment and other pollutants from discharging to the drainage system or receiving waters. SWPPP BMPs are recognized as effective methods to prevent or minimize the potential releases of pollutants into drainages, surface water, or groundwater.

Implementation of BMPs required as part of the SWPPP would ensure that the Proposed Project would not create or contribute to any violations of water quality standards or waste discharge requirements. There would be a less than significant impact.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐

Less Than Significant Impact.

The Project includes the demolition and replacement of an existing creek diversion structure, removal of a segment of exposed pipeline, and the installation of approximately 60 feet of the 6-inch PVC pipeline buried a minimum of 5 feet below the creek bed to protect the transmission line from the migration of large rocks and debris during future high flow events. Offsite work includes improvements to the Site access road in order to provide a safe, reliable route to the Project Site. This replacement would not substantially reduce the amount of existing groundwater recharge potential or supplies. The Project would have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:	–	–	–	–
i) result in substantial erosion or siltation onsite or offsite;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite 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?	☐	☐	☒	☐

a) Less Than Significant Impact.

i) Less Than Significant Impact.

The Proposed Project would restore areas affected by pipeline replacement, demolition and replacement of the diversion structure to pre-project conditions relative to topography and groundcover, to the extent

practicable. Although components of the Project would require construction activities to be conducted within the Campbell Gulch creek (replacing a section of exposed water transmission pipeline and the diversion structure), the Proposed Project would not alter the drainage pattern and would return the area to its pre-construction conditions upon completion of the Project.

Further, the Project construction activities would result in a potential disturbance area 1.86 acre. As such, an NPDES Construction General Permit would be required prior to the start of construction. Excavation and grading activities associated with the Proposed Project will reduce vegetative cover and expose bare soil surfaces making these surfaces more susceptible to erosion. To comply with the requirements of the NPDES Construction General Permit, CCSD will be required to file an NOI with the State of California and submit a SWPPP defining BMPs for construction and post-construction related control of the Proposed Project site runoff and sediment transport. Requirements for the SWPPP include incorporation of both erosion and sediment control BMPs. SWPPP generally include the following applicable elements:

- diversion of offsite runoff away from the construction area;
- prompt revegetation of proposed landscaped areas;
- perimeter straw wattles or silt fences and/or temporary basins to trap sediment before it leaves the site;
- regular sprinkling of exposed soils to control dust during construction during the dry season;
- installation of a minor retention basin(s) to alleviate discharge of increased flows;
- specifications for construction waste handling and disposal;
- erosion control measures maintained throughout the construction period;
- preparation of stabilized construction entrances to avoid trucks from imprinting debris on city roadways;
- contained wash out and vehicle maintenance areas;
- training of subcontractors on general construction area housekeeping;
- construction scheduling to minimize soil disturbance during the wet weather season; and
- regular maintenance and storm event monitoring.

Note that the SWPPP is a "live" document and should be kept current by the person responsible for its implementation. Preparation of, and compliance with a required SWPPP would effectively prevent Proposed Project on-site erosion and sediment transport off-site. This will reduce potential runoff, erosion, and siltation associated with construction and operation of the Proposed Project. The effects of the Proposed Project on onsite and offsite erosion and siltation, therefore, would be less than significant.

ii) Less Than Significant Impact.

Implementation of the Proposed Project would not result in an increase of the rate or amount of surface runoff in a manner that would result in flooding on- or offsite. As noted above, the Proposed Project

would restore areas affected by the diversion structure and pipeline construction to pre-project conditions relative to topography and groundcover and would not change the drainage pattern of the area. Therefore, any impact of the Project on existing drainage would be less than significant relative to existing conditions. Therefore, the Proposed Project would have a less than significant impact on causing flooding on- or offsite.

iii) Less Than Significant Impact.

See discussion of i) and ii), above. The Project includes the demolition and replacement of an existing creek diversion structure, removal of a segment of exposed pipeline, and the installation of approximately 60 feet of 6-inch PVC pipeline buried a minimum of 5 feet below the creek bed to protect the transmission line from the migration of large rocks and debris during future high flow events. Offsite work includes improvements to the Site access road in order to provide a safe, reliable route to the Project Site. However, this replacement of a section of transmission line would not affect any existing stormwater drainage systems as it the conveyance facilities for the water supply and not associated with stormwater drainage.

Polluted runoff from the Project Site during construction could include sediment from soil disturbances, oil and grease from construction equipment, and gross pollutants such as trash and debris. Compliance with Project BMPs being implemented during the construction phase would ensure the effective minimization of excessive soil erosion and sedimentation and eliminate non-stormwater discharge off-site. As discussed previously, BMPs would be included as part of the Proposed Project. Therefore, impacts associated with stormwater volumes and polluted runoff during the construction of the Proposed Project would be less than significant.

The Project is the demolition and replacement of a diversion structure and water conveyance pipeline with no operational components proposed. Therefore, there are no impacts associated with operations of the Project Site.

iv) Less Than Significant Impact.

FEMA flood hazard maps (Map No. 06091C0525C) show that the Project Site is in Zone X and not located within a 100-year flood zone. All Project improvements would be underground with the exception of the improvements to the diversion structure. However, these improvements are insubstantial and upon completion would not redirect or impede flood waters. Therefore, implementation of the Proposed Project will have a less than significant impact related to impeding or redirecting flood flows.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	☐	☐	☐	☒

Less Than Significant Impact.

The Project Site is not located near the ocean or a lake and therefore the Project is not in a tsunami or seiche inundation zone. There would be no impact.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

No Impact.

The Project Site is located within the Yuba Water Agency and the Yuba Subbasins Water Management Plan (Yuba County 2020a). The Project is the replacement of a diversion structure and associated facilities and would not result in the use of groundwater. Therefore, the Project would have no effect on water quality control plans or a sustainable groundwater management plan pertaining to the area. The Project would have no impact.

4.10.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.11 Land Use and Planning

4.11.1 Environmental Setting

The Project includes the demolition and replacement of an existing creek diversion structure and removal and replacement of approximately 60 feet of the exposed 6-inch PVC pipeline and replacement with a 6-inch PVC pipeline buried a minimum of 5 feet below the creek bed to protect the transmission line from the migration of large rocks and debris during future high flow events. Offsite work includes improvements to the Site access road in order to provide a safe, reliable route to the Project Site. The Project Site is designated Natural Resources in the 2030 Yuba County General Plan (Yuba County 2011), and zoned AG-20 (Agricultural/Residential District 20 Acres).

4.11.2 Land Use and Planning (XI) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒

No Impact.

The Proposed Project consists of the demolition and replacement of an existing diversion structure and removal and replacement of a water conveyance pipeline within the Campbell Gulch creek. The majority of the proposed pipeline work would be within the Project Site. Offsite work includes improvements to the Site access road in order to provide workers with a safe, reliable route to the Project Site. Replacing the existing pipeline would not divide any existing communities in the area. The Proposed Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

No rezoning or General Plan amendments are required for the Proposed Project. The Proposed Project would not conflict with any applicable land use plan, policy or regulation. As such, the Proposed Project would have no impact in this area.

4.11.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.12 Mineral Resources

4.12.1 Environmental Setting

The state-mandated Surface Mining and Reclamation Act of 1975 requires the identification and classification of mineral resources in areas within the state subject to urban development or other irreversible land uses that could otherwise prevent the extraction of mineral resources. These designations categorize land as Mineral Resource Zones (MRZ-1 through MRZ-4).

Neither the County's 2030 General Plan nor the California DOC Division of Mine Reclamation (DMR), identifies the Project Site as within a mineral resource zone or mine site (Yuba County 2011; DOC 2023c).

4.12.2 Mineral Resources (XII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

As discussed above, neither the County nor DMR identify the Project Site as having mineral resources. Therefore, the Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

No Impact.

The Project Site is not identified as a mineral resource recovery site by the County or DMR. There would be no impact in this area.

4.12.3 Mitigation Measures

No significant impacts were identified and no mitigation measures are required.

4.13 Noise

4.13.1 Environmental Setting

4.13.1.1 Noise Fundamentals

Noise is generally defined as sound that is loud, disagreeable, or unexpected. The selection of a proper noise descriptor for a specific source is dependent on the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels/Community Noise Equivalent Level (in L_{dn}/CNEL). The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined as follows:

- **Equivalent Noise Level (L_{eq})** is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they

deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

- **Day-Night Average (L_{dn})** is a 24-hour average L_{eq} with a 10-dBA "weighting" added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.
- **Community Noise Equivalent Level (CNEL)** is a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 pm to 10:00 pm and a 10-dBA weighting added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the evening and nighttime, respectively.

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations.

Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (Federal Highway Administration [FHWA] 2011). Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed (FHWA 2011).

The manner in which older structures in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (Caltrans 2002). The exterior-to-interior reduction of newer structures is generally 30 dBA or more (Harris Miller & Hanson Inc. 2006).

Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60- to 70-dBA range, and high, above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban

residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in dBA, the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1.0 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3.0-dBA change is considered a just-perceivable difference.
- A change in level of at least 5.0 dBA is required before any noticeable change in community response would be expected. An increase of 5.0 dBA is typically considered substantial.

A 10.0-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

Sensitive Noise Receptors

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses. The nearest sensitive receptor to the Project Area is a single-family residence located approximately 415 feet east and another located 480 feet northwest of the Project Area.

4.13.1.2 Vibration Sources and Characteristics

Ground vibration can be measured several ways to quantify the amplitude of vibration produced, including through Peak Particle Velocity (PPV) or root mean square velocity. These velocity measurements measure maximum particle at one point or the average of the squared amplitude of the signal, respectively.

Vibration impacts on people can be described as the level of annoyance and can vary depending on an individual's sensitivity. Generally, low-level vibrations may cause window rattling but do not pose any threats to the integrity of buildings or structures.

4.13.1.3 Existing Ambient Noise Environment

The Project Site, which is in unincorporated Yuba County near Camptonville, California, is impacted by noise sources typical of a small city. According to the Yuba County General Plan, examples of major noise sources existing within the County include major transportation corridors such as State Highways 20, 65, and 70; major County roads; and two Union Pacific Railroad lines. The County also includes several ongoing stationary noise sources, including quarries and mining operations, manufacturing operations, agricultural operations, a raceway, a landfill, an amphitheater, a concrete plant, the Beale Air Force Base,

and the County's airports. The nearest source of traffic noise is State Route 49, which is located approximately 0.5 mile west of the Project Area. The Project Area is zoned as Agricultural/Residential District 20 Acres (AR-20) and has a land use designation of Natural Resources. Beyond these sources, the existing ambient noise environment at the Project Area is influenced by the typical sources of noise associated with a rural area.

The American National Standards Institute (ANSI) Standard 12.9-2013/Part 3 "Quantities and Procedures for Description and Measurement of Environmental Sound – Part 3: Short-Term Measurements with an Observer Present" provides a table of approximate background sound levels in L_{dn}, daytime L_{eq}, and nighttime L_{eq}, based on land use and population density. The ANSI standard estimation divides land uses into six distinct categories. Descriptions of these land use categories, along with the typical daytime and nighttime levels, are provided in Table 4.13-1. At times, one could reasonably expect the occurrence of periods that are both louder and quieter than the levels listed in the table. ANSI notes, "*95% prediction interval [confidence interval] is on the order of ±10 dB*" (ANSI 2013). The majority of the Project Area would be considered ambient noise Category 6.

Table 4.13-1. ANSI Standard 12.9-2013/Part 3 A-Weighted Sound Levels Corresponding to Land Use and Population Density

Category	Land Use	Description	People per Square Mile	dBA		
				Typical L_{dn}	Daytime L_{eq}	Nighttime L_{eq}
1	Noisy Commercial & Industrial Areas and Very Noisy Residential Areas	Very heavy traffic conditions, such as in busy, downtown commercial areas; at intersections for mass transportation or other vehicles, including elevated trains, heavy motor trucks, and other heavy traffic; and at street corners where many motor buses and heavy trucks accelerate.	63,840	67	66	58
2	Moderate Commercial & Industrial Areas and Noisy Residential Areas	Heavy traffic areas with conditions similar to Category 1, but with somewhat less traffic; routes of relatively heavy or fast automobile traffic, but where heavy truck traffic is not extremely dense.	20,000	62	61	54

Table 4.13-1. ANSI Standard 12.9-2013/Part 3 A-Weighted Sound Levels Corresponding to Land Use and Population Density

Category	Land Use	Description	People per Square Mile	dBA		
				Typical L_{dn}	Daytime L_{eq}	Nighttime L_{eq}
3	Quiet Commercial, Industrial Areas and Normal Urban & Noisy Suburban Residential Areas	Light traffic conditions where no mass-transportation vehicles and relatively few automobiles and trucks pass, and where these vehicles generally travel at moderate speeds; residential areas and commercial streets, and intersections, with little traffic, compose this category.	6,384	57	55	49
4	Quiet Urban & Normal Suburban Residential Areas	These areas are similar to Category 3, but for this group, the background is either distant traffic or is unidentifiable; typically, the population density is one-third the density of Category 3.	2,000	52	50	44
5	Quiet Residential Areas	These areas are isolated, far from significant sources of sound, and may be situated in shielded areas, such as a small-wooded valley.	638	47	45	39
6	Very Quiet Sparse Suburban or rural Residential Areas	These areas are similar to Category 4 but are usually in sparse suburban or rural areas; and, for this group, there are few if any nearby sources of sound.	200	42	40	34

Note: dBA = A-weighted decibels; L_{dn} = Day-Night Average Sound Level; L_{eq} = Equivalent Noise Level
Source: The American National Standards Institute (ANSI) 2013

4.13.2 Noise (XIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐

Less Than Significant Impact With Mitigation Incorporated.

As previously described, noise-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise sensitive and may warrant unique measures for protection from intruding noise. The nearest sensitive receptor to the Project Area is a single-family residence located approximately 415 feet east and another located 480 feet northwest of the Project Area.

4.13.2.1 Onsite Construction Noise Impacts

Construction noise associated with the Proposed Project would be temporary and would vary depending on the specific nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., site preparation, excavation, paving). Noise generated by construction equipment, including earth movers, pile drivers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site. This construction noise would be temporary, short term, intermittent in nature, and would cease on completion of the Project.

Yuba County Ordinance Code Section 8.20.310 states that it is unlawful for any person within a residential zone, or within a radius of 500 feet therefrom, to operate equipment or perform any outside construction or repair work on buildings, structures or projects, or to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist, or any other construction-type device between the hours of 10:00 p.m. of one day and 7:00 a.m. of the following day 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 duly obtained beforehand from the Community Development and Services Agency's Director of the Planning Department. The Project would be required to comply with this Municipal Code requirement.

To estimate the worst-case onsite construction noise levels that may occur at the nearest noise-sensitive receptors and in order to evaluate the potential health-related effects (physical damage to the ear) from construction noise, the construction equipment noise levels were calculated using the Federal Highway Administration's Roadway Noise Construction Model (RCNM) and compared against the construction-related noise level threshold established in the Criteria for a Recommended Standard: Occupational Noise Exposure prepared in 1998 by the National Institute for Occupational Safety and Health (NIOSH). A division of the U.S. Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The NIOSH construction-related noise level threshold starts at 85 dBA for more than 8 hours per day; for every 3-dBA increase, the exposure time is cut in half. This reduction results in noise level thresholds of 88 dBA for more than 4 hours per day, 92 dBA for more

than 1 hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. For the purposes of this analysis, the lowest, more conservative threshold of 85 dBA L_{eq} is used as an acceptable threshold for construction noise at the nearby sensitive receptors.

It is acknowledged that the majority of construction equipment is not situated at any one location during construction activities, but rather spread throughout the Project Area and at various distances from sensitive receptors. Therefore, this analysis employs the Federal Transit Administration (FTA) guidance for calculating construction noise, which recommends measuring construction noise produced by all construction equipment from the center of the Project Area (FTA 2018). In this case the nearest sensitive receptor is approximately 415 feet from the northern part of the Project Site where the diversion structure is located. The nearest sensitive receptor to the southern part of the Project Area where the water pipeline is located is approximately 480 feet away. For the purposes of RCNM modeling, the more conservative distance of 415 feet is used as the distance to receptor. The anticipated short-term construction noise levels generated for the necessary equipment is presented in Table 4.13-2.

Table 4.13-2. Construction Average (dBA) Noise Levels at Nearest Residential Receptor

Equipment	Estimated Exterior Construction Noise Level at Nearest Residences (dBA)	Construction Noise Standards (dBA L_{eq})	Exceeds Standards?
Vegetation Clearing			
Concrete/Industrial Saws (4)	64.2	*85*	**No**
Rough Terrain Forklift	63.6	*85*	**No**
Combined Vegetation Clearing Equipment	**71.1**	***85***	**No**
Material Import			
Combined Material Import Equipment	**-**	***85***	**-**
Diversion Structure and Water Pipeline Removal			
Excavators (2)	58.3	*85*	**No**
Skid Steer Loaders (2)	56.7	*85*	**No**
Other Construction Equipment	63.6	*85*	**No**
Combined Diversion Structure and Water Pipeline Removal Equipment	**66.6**	***85***	**No**
Diversion Structure and Water Pipeline Installation			
Crane	54.2	*85*	**No**
Excavator	58.3	*85*	**No**
Cement and Mortar Mixer	58.6	*85*	**No**
Combined Diversion Structure and Water Pipeline Installation Equipment	**62.2**	***85***	**No**

Table 4.13-2. Construction Average (dBA) Noise Levels at Nearest Residential Receptor			
Equipment	**Estimated Exterior Construction Noise Level at Nearest Residences (dBA)**	**Construction Noise Standards (dBA L_{eq})**	**Exceeds Standards?**

Notes:
Construction equipment used during construction derived from the California Emissions Estimator Model. This model contains default construction equipment and usage parameters for typical roadway construction projects. Consistent with FTA recommendations for calculating construction noise, construction noise was measured from the center of the Project Area (Federal Transit Administration [FTA] 2018), which is 415 feet from the residences to the northwest.

Note: dBA = A-weighted decibels; L_{dn} = Day-Night Average Sound Level Equivalent Noise Level (L_{eq}) = The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

Source: Construction noise levels were calculated by ECORP Consulting using the FHWA Roadway Noise Construction Model (Federal Highway Administration [FHWA] 2006). Refer to Appendix F for Model Data Outputs.

As shown in Table 4.13-2, Project onsite construction activities would not exceed the NIOSH threshold of 85 dBA L_{eq} at the nearest noise-sensitive receptors.

No noise standard would be exceeded by construction of the Proposed Project. Project construction, while temporary, would still cause an increase of noise over existing conditions during the times of construction activity. Impacts would be less than significant with the incorporation of mitigation measure NOI-1, which mandates the implementation of noise-related best management practices.

4.13.2.2 Offsite Construction Traffic Noise Impacts

Construction associated with the Project would result in additional traffic (e.g., worker commutes and material hauling) on adjacent roadways over the period that construction occurs. According to the California Emissions Estimator Model, which was used to predict the number of on-road Project construction-related trips, construction would not instigate more than 40 one-way trips in a single day (20 haul trips and 20 worker commute trips). According to the Caltrans *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, doubling of traffic on a roadway is required to result in an increase of 3 dB (outside of the laboratory, a 3-dBA change is considered a just-perceivable difference) (Caltrans 2013). While Project construction workers would instigate their trip to the Project Area from differing locations, the addition of 40 daily trips on the roadway facilities that would be used to reach the Project Area would not result in a doubling of traffic, and therefore its contribution to existing traffic noise would not be perceptible. Additionally, it is noted that construction is temporary, and construction-related trips would cease upon completion of construction.

4.13.2.3 Operational Noise Impacts

The Project proposes necessary upgrades to the existing Campbell Gulch diversion structure, which has experienced deterioration, and to an existing water pipeline that crosses Campbell Creek, which is

currently exposed without proper protection from high creek flows and debris in the creek. The existing diversion structure would be removed and replaced in its existing location, while the segment of exposed pipeline would be replaced at a minimum of 5 feet below the streambed. Once upgrades are complete, the Project components would not be a greater source of operational noise beyond current conditions.

For the reasons listed above, this impact is less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☒	☐

Less Than Significant Impact.

4.13.2.4 Construction Vibration Impacts

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to the Proposed Project would be primarily associated with short-term construction-related activities. Construction in the Project Area would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. It is not anticipated that pile drivers would be necessary during Project construction. Vibration decreases rapidly with distance, and it is acknowledged that construction activities would occur throughout the Project Area and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with construction equipment are summarized in Table 4.13-3.

Table 4.13-3. Typical Construction Equipment Vibration Levels

Equipment Type	Peak Particle Velocity at 25 Feet (inches per second)
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Hoe Ram	0.089
Jackhammer	0.035
Small Bulldozer/Tractor	0.003
Vibratory Roller	0.210

Source: Federal Transit Administration (FTA) 2018; California Department of Transportation (Caltrans) 2020

According to Yuba County's Ordinance Code Section 11.26.060, vibrations from temporary construction, demolition, and vehicles that enter and leave the subject parcel (e.g., construction equipment, trains, trucks) are exempt from the vibration standard. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, Caltrans (2020) recommends a standard of 0.3 inches per second PPV with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings.

Consistent with FTA recommendations for calculating construction vibration, construction vibration was measured from the center of the Project Area (FTA 2018). The nearest structure of concern to the construction site, with regard to groundborne vibrations, is the single-family residence directly east of the Project Area approximately 415 feet from the Project Area center.

Based on the representative vibration levels presented for various construction equipment types in Table 4.123-3 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the potential Project construction vibration levels (FTA 2018). The FTA provides the following equation:

$$[PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}]$$

Table 4.13-4 presents the expected Project related vibration levels at a distance of 415 feet.

Table 4.13-4. Construction Vibration Levels at 415 Feet

Receiver PPV Levels (in/sec)[1]					Peak Vibration	Threshold	Exceed Threshold?
Large Bulldozer, Caisson Drilling, & Hoe Ram	Loaded Trucks	Jackhammer	Small Bulldozer/ Tractor	Vibratory Roller			
0.001	0.001	0.001	0.000	0.003	**0.001**	*0.3*	**No**

Notes: [1]Based on the Vibration Source Levels of Construction Equipment included on Table 4.123-4 (Federal Transit Administration [FTA] 2018). Distance to the nearest structure of concern is approximately 415 feet measured from Project Area center.
Note: in/sec = Inches per Second

As shown in Table 4.123-3, groundborne vibrations attenuate rapidly from the source due to geometric spreading and material damping. Geometric spreading occurs because the energy is radiated from the source and spreads over an increasingly large distance while material damping is a property of the friction loss which occurs during the passage of a vibration wave. Vibration as a result of construction activities would not exceed 0.3 PPV. Thus, Project construction would not exceed the recommended threshold.

4.13.2.5 Operational Vibration Impacts

Project operations would not include the use of any stationary equipment that would result in excessive groundborne vibration levels. Therefore, the Project would result in no groundborne vibration impacts during operations.

This impact is less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

The Project Area is located approximately 16 miles north of the closest airport, Nevada County Airport. Aircraft noise would not significantly impact the Project Area and would not expose people visiting or working in the Project Area to excess airport noise levels. No impact would occur.

4.13.3 Mitigation Measures

NOI-1: The following measures shall be applied to the Project during construction:

1. All construction equipment, fixed or mobile, will be equipped with properly operating and maintained mufflers, consistent with manufacturer standards.
2. All stationary construction equipment will be placed so that emitted noise is directed away from the noise sensitive receptors near the Project Area (the residences to the east and west of the site).
3. As applicable, shut off all equipment when not in use.
4. Equipment staging shall be located in areas that create the greatest distance between construction-related noise/vibration sources and sensitive receptors to the east and west of the site.
5. Jackhammers, pneumatic equipment, and all other portable stationary noise sources will be directed away from the residences to the east and west of the site to the extent possible. Either one-inch plywood or sound blankets can be utilized for this purpose. They should reach up from the ground and block the line of

sight between equipment and the nearest off-site residences. The shielding should be without holes and cracks.

6. No amplified music and/or voice will be allowed on the construction site.

Timing/Implementation: *During construction*

Monitoring/Enforcement: *Camptonville Community Services District*

4.14 Population and Housing

4.14.1 Environmental Setting

According to the California Department of Finance (DOF), which provides estimated population and housing unit demographics by year throughout the State, the County's population decreased 14.35 percent between 2010 and 2023, from 82,677 to 72,155. DOF estimates that there were 30,893 total housing units in the County, and an 8.1 percent vacancy rate as of January 1, 2023 (DOF 2023). DOF does not provide population or housing estimated for the community of Camptonville.

4.14.2 Population and Housing (XIV) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒

No Impact.

The Project does not include the construction of any new homes**.** Implementation of the Project would not extend any roads or new public infrastructure. Therefore, direct or indirect increases in population growth would not occur as a result of the Proposed Project.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

No Impact.

No persons or residences would be displaced or removed as a result of the Proposed Project, and the Project would have no impact in this area.

4.14.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.15 Public Services

4.15.1 Environmental Setting

Public services include fire protection, police protection, parks and recreation, and schools. Generally, impacts in these areas are related to an increase in population from residential development. Levels of service are generally based on a service to population ratio, except for fire protection, which is usually based on a response time.

4.15.1.1 Police Services

Law enforcement services are provided by the Yuba County Sheriff's Department (YCSD) within the unincorporated County (AECOM 2011). In addition, the California Highway Patrol provides traffic control, investigation, law enforcement services related to vehicles on State highways, freeways, and roads in the unincorporated portions of the County. The nearest police station is the YCSD substation in Brownsville, approximately 13.5 miles west of the Project Site.

4.15.1.2 Fire Services

Fire protection services in the Project area are provided by CAL-FIRE Nevada-Yuba-Placer Unit which serves as the fire lead agency within the State Responsibility Areas. The nearest CAL-FIRE station is at 15410 Mill Street, Camptonville, Ca, approximately 0.62 mile from the Project Site, and houses the Camptonville Volunteer Fire Department.

4.15.1.3 Emergency Medical Facilities

The nearest medical facility is Sierra Nevada Memorial Hospital at 155 Glasson Way in Grass Valley, 23 miles south of the Project Site.

4.15.1.4 Schools

Camptonville Elementary School (TK-8) of the Camptonville Union Elementary School District in Camptonville is the nearest school to the Project Site. This small mountain community school features a wireless campus and is located approximately 0.75 mile west of the Project Site (Camptonville Union Elementary School District 2023).

4.15.1.5 Parks

The County plans for and maintains some local parks and provides regional parks and facilities, such as Hammon Grove Park, Sycamore Ranch, and Star Bend Boat Ramp. Some of the County's unincorporated communities have no parks or recreation facilities, while in others, there are community groups that maintain parks that were created with County assistance. Other areas have parks that were developed and

are maintained by the County. In addition, there are state and federal agencies, other local agencies, and special districts that provide recreational services in the County. The cities of Marysville and Wheatland have park systems of their own with a variety of park types. The Olivehurst Public Utility District has developed and maintains a park system to serve the Olivehurst and Plumas Lake areas. Schools in the Camptonville, Marysville Joint Unified, Plumas Lake, Wheatland and Wheatland High School Districts include playgrounds, playfields, gymnasiums, and other recreational facilities. Private recreational and entertainment facilities are provided at Sleep Train Amphitheater, Collins Lake Campground, Lake of the Springs, Timbuctoo Sporting Estate, and Lake Francis Resort, as well as other unique areas of the County.

The County's Parks Master Plan considers existing facilities and future population growth in recommending a series of parks and trails to be developed throughout the County. The Parks Master Plan identifies additional recreational facilities that will be required during General Plan buildout, as well as funding strategies that cover up-front capital costs, as well as costs associated with ongoing maintenance.

Hammon Grove Regional Park, managed by Yuba County, is the closest county park to the Project Site and is located 25 miles southwest of the Project Site along SR 20. Hammon Grove Park recreational facilities include access to the Lower Yuba River, picnicking, hiking, and fishing.

4.15.2 Public Services (XV) Environmental Checklist and Discussion

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

No Impact.

The Project includes the demolition and replacement of an existing creek diversion structure, removal of a segment of exposed pipeline, and replacement with approximately 60 feet of 6-inch PVC pipeline buried a minimum of 5 feet below the creek bed to protect the transmission line from the migration of large rocks and debris during future high flow events. Offsite work includes improvements to the Site access road in

order to provide workers with a safe, reliable route to the Project Site. All improvements from the Project would be maintained by the State and would not require public services beyond existing conditions. The Proposed Project would not result in an increase in population which in turn would impact public facilities. As such, the Proposed Project would not affect police protection, fire protection, schools, parks, or other public facilities. Therefore, no impact would occur.

4.15.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.16 Recreation

4.16.1 Environmental Setting

The closest recreational facility to the Project Site includes the New Bullard's Bar Reservoir. The Yuba Water Agency provides many recreational opportunities near New Bullard's Bar Reservoir as part of its Federal Energy Regulatory Commission license. On average, more than 112,000 visitors recreate in this area each year. New Bullard's Bar Reservoir, which is located about 2.5 miles west of the Project Site on Marysville Road, has 55 miles of shoreline with more than 20 miles of trails, most of which are located in the Plumas and Tahoe national forests. A rather shallow lake, New Bullard's Bar is known for warmer water and for its great fishing. Recreation opportunities include boating, houseboating, fishing, camping, hiking, mountain biking, swimming, and kayaking. Yuba Water works closely with the Emerald Cove Marina, located near the dam, and the U.S. Forest Service Tahoe Ranger District near Camptonville. The U.S. Forest Service, Yuba Water, Emerald Cove Marina, and the Yuba County Sheriff's Office work closely to monitor security at New Bullard's Bar. This includes increasing patrols to ensure all recreational users can have a safe and fun time. As of May 2023, the Cottage Creek and Dark Day boat launches are open and operational. The marina offers a wide variety of services to visitors, including a general store, fuel, boat moorage, camping reservations, and houseboat, ski, patio and fishing boat rentals (Yuba Water Agency 2023).

4.16.2 Recreation (XVI) Materials Checklist

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒

No Impact.

As stated previously, the need for additional parkland is primarily based on an increase in population to an area. Given that the Proposed Project would not increase population, the Project would not burden any parks in the surrounding area beyond capacity by generating additional recreational users. Therefore, the Proposed Project would not increase the use of park and recreational facilities resulting in substantial

physical deterioration of the facility. There would be no impact to recreational facilities as a result of construction of the Proposed Project.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

No Impact.

The Proposed Project would not result in the construction of recreational facilities. The Project would not require the construction or expansion of additional off-site recreational facilities. As such, the Proposed Project would have no impact in this issue area.

4.16.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.17 Transportation

4.17.1 Environmental Setting

The Project Site is located within unincorporated Yuba County, within sloping terrain along Campbell Gulch Creek. Portions of the Project include offsite construction activities including improvements to the Site access road, such as regrading, to provide the workers with a safe and reliable route to the Project Site. The Project Site is accessed via Mountain House Road, a County two-lane rural minor arterial road road, off SR 49. Due to limited funding, only primary roadways in the County are prioritized for infrastructure improvements: this includes SR 49 but does not include Mountain House Road (Yuba County 2020b).

4.17.2 Transportation (XVII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒

No Impact.

The Proposed Project is the demolition and replacement of a diversion structure and replacement of a section of a water conveyance pipeline buried a minimum of 5 feet below the creek bed to protect the

transmission line from the migration of large rocks and debris during future high flow events. Offsite work includes improvements to the Site access road in order to provide workers with a safe, reliable route to the Project Site. The 2030 General Plan Circulation Element provides guidance in the County for existing and future transportation facilities. The replacement of the existing diversion structure, replacement of the transmission pipeline, and offsite improvements to the Site access road would not conflict with any program, plan, ordinance, or policy addressing the circulation system in the 2030 General Plan. The Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☐	☒

No impact.

CEQA Guidelines Section 15064.3, subdivision (b) provides criteria for analyzing transportation impacts based on a Vehicle Mile Traveled (VMT) methodology instead of the now superseded (as of January 1, 2019) level of service methodology. Pertinent to the Proposed Project are those criteria identified in Section 15064.3(b)(1) Land Use Projects. According to this section:

> "Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor[3] should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact."

However, Section 15064.3(b)(3) allows an agency to determine a project's transportation impact on a qualitative basis if a VMT methodology is unavailable, as is the case with the Proposed Project.

Section 15064.3(b)(3) is as follows:

> "Qualitative Analysis. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate."

The number of vehicle trips from the Proposed Project is based on the number of construction workers required to install the new facilities as discussed in Section 2.0. As discussed in Section 2.0, on average, there will be approximately 5 employees at the Project Site during construction. Construction is

[3] *High-quality transit corridor* means an existing corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours. For the purposes of this document, an *existing stop along a high-quality transit corridor* may include a planned and funded stop that is included in an adopted regional transportation improvement program.

anticipated to start in May 2024 and take approximately 3 months to complete. Clearing and grubbing would require 1 week of work with an excavator, operator, and a sawyer to remove the unsafe material and prepare the Sites and Project access road. The intake piping earthwork and CDGS replacement would require an excavator and loader for up to 3 weeks. Workers would be onsite to place rebar and forms for up to 5 days. A concrete mixing truck will be onsite for pouring of the concrete diversion structure for up to 2 days. Workers would be on site for approximately 1 week to place fill material, erosion control, fencing, and other appurtenances to finish the site once the diversion structure is constructed. Work conducted on the Site access road would require an excavator and loader, which are anticipated to be on Site for up to 12 days, and the compactor for 2 days. It is anticipated that access road restoration will be completed at the end of the Project; the existing access road was improved to accommodate construction traffic as part of a past Project.

The Project does not propose any new commercial, industrial, residential, or other development that would increase the VMT in the County. Therefore, the Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒

No Impact.

The Project would neither result in the redesign of the existing roadway system nor introduce incompatible uses to the roadways. The Proposed Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in inadequate emergency access?	☐	☐	☐	☒

No Impact.

As discussed previously, the Project includes the demolition and replacement of an existing creek diversion structure and removal and replacement of approximately 60 feet of the exposed 6-inch PVC pipeline and replacement with a 6-inch PVC pipeline buried a minimum of 5 feet below the creek bed, No long-term modifications to roadway features are proposed as part of the Project and therefore would not result in any long-term adverse impact on emergency access. Traffic disruption that may occur during Project construction, however, the area of impact is limited to small areas and alternative routes are available in adjacent roadways. Additionally, as the Project is a Community Project, the emergency services provided by the Community of Camptonville will be well informed of the Project construction and appropriate measures for emergency access will be established prior to any emergency. Therefore, the Proposed Project would not result in inadequate emergency services and have no impact in this area.

4.17.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.18 Tribal Cultural Resources

4.18.1 Environmental Setting

The following information was provided by ECORP Consulting, Inc. (2023c) as a part of the Archaeological Resources Inventory Report for the Proposed Project. The information provided below is an abridged version of this report and is provided here to afford a brief context of the Native Americans in the Project area.

Ethnographically, the Project Area is in the southwestern portion of the territory occupied by the Penutian-speaking Nisenan. Nisenan inhabited the drainages of the Yuba, Bear, and American rivers, and also the lower reaches of the Feather River, extending from the east banks of the Sacramento River on the west to the mid to high elevations of the western flank of the Sierra Nevada to the east (Wilson and Towne 1978). The territory extended from the area surrounding the current City of Oroville on the north to a few miles south of the American River in the south. The Sacramento River bounded the territory on the west, and in the east, it extended to a general area located within a few miles of Lake Tahoe.

4.18.2 Nisenan

Nisenan were observed by early ethnographers to inhabit the drainages of the Yuba, Bear, and American rivers, and also the lower reaches of the Feather River, extending from the east banks of the Sacramento River on the west to the mid to high elevations of the western flank of the Sierra Nevada to the east. The territory extended from the area surrounding the current City of Oroville on the north to a few miles south of the American River in the south. The Sacramento River bounded the territory on the west, and in the east, it extended to a general area located within a few miles of Lake Tahoe.

As a language group, Nisenan (meaning *from among us* or *of our side*) are members of the Maiduan Family of the Penutian stock and are generally divided into three groups based on dialect differences: the Northern Hill (mountain) Nisenan in the Yuba River drainage; the Valley Nisenan along the Sacramento River; and the Southern Hill (foothills) Nisenan along the American River. Ethnographic informants indicated that individual and extended families *owned* hunting and gathering grounds, and trespassing was discouraged. Residence was generally patrilocal, but couples actually had a choice in the matter.

At the time of contact, ethnographers identified that the basic social and economic group for the Nisenan was the family or household unit. The nuclear and/or extended family formed a corporate unit. These basic units were combined into distinct village or hamlet groups, each largely composed of consanguine relatives.

Tribelet populations of Valley Nisenan were as large as 500 persons at contact, while foothill and mountain tribelets ranged between 100 and 300 persons. It is estimated that Nisenan tribelet territories averaged approximately 10 miles along each boundary, or 100 square miles, with foothill territories tending to encompass more area than mountain territories.

Early Nisenan groups practiced seasonal migration, a subsistence strategy involving moving from one area or elevation to another to harvest plants, fish, and hunt game across contrasting ecosystems that were in relatively close proximity to each other.

Ethnographers noted that during most of the year, Nisenan usually lived in permanent villages located below about 2,500 feet that generally had a southern exposure, were surrounded by an open area, and were located above, but close to watercourses. The rather large uninhabited region between the 3,000-foot contour and the summit of the Sierra Nevada was considered open ground, which was only used by communities living along its edge.

The first known occupation by European-Americans was marked by American and Hudson Bay Company fur trappers in the late 1820s establishing camps in Nisenan territories. This occupation was thought to have been peaceful.

In 1833 a deadly epidemic (probably malaria) swept through the Sacramento Valley and had a devastating effect on Nisenan populations. Entire villages were lost, and many surviving Nisenan retreated into the hills. An estimated 75 percent of their population was wiped out.

The mountain Nisenan groups encountered Europeans in their territory but were not adversely affected by the epidemics and early settlers. The discovery of gold, however, led to their territory being overrun within a matter of a few years. This dynamic led to widespread killing, destruction, and persecution of the Nisenan and their culture. The survivors were relegated to working in agriculture, logging, ranching, or domestic pursuits.

The turn of the 20th century was fraught with deplorable conditions for the surviving Nisenan populations, marked by low educational attainment, high unemployment, poor housing and sanitation, and prevalence of alcoholism. The 1960 U.S. census reported 1,321 Native Americans resided in the counties originally held as Nisenan territory, but none had tribal affiliation. Sutter County listed 802 Native Americans, of which only four were known descendants of the Valley Nisenan. El Dorado, Placer, Yuba, and Nevada counties had several Nisenan families in the 1970s who are descended from mountain groups and could speak the language and retained knowledge of traditional lifeways.

Despite enduring over a century of adversity and hardship, descendants of the pre-contact Nisenan exist today. They are members of modern society and some people still practiced Nisenan customs despite the old ways having been largely lost. Nisenan and other modern Native American populations participate in pan-Indian activities and celebrations. Nisenan descendants continue to be active in social movements and organizations that seek to improve the Native American situation in the dominant America culture.

4.18.3 Tribal Consultation

In addition to the records search, ECORP contacted the California NAHC on July 20, 2023, to request a search of the Sacred Lands File for the Project Area (Appendix D). This search determines whether the California Native American tribes within the Project Area have recorded Sacred Lands, because the Sacred Lands File is populated by members of the Native American community with knowledge about the locations of tribal resources. In requesting a search of the Sacred Lands File, ECORP solicited information from the Native American community regarding TCRs, but the responsibility to formally consult with the

Native American community lies exclusively with the federal and local agencies under applicable state and federal laws. The lead agencies do not delegate government-to-government authority to any private entity to conduct tribal consultation.

4.18.4 Tribal Cultural Resources (XVIII) Environmental Checklist and Discussion

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

Less Than Significant With Mitigation Incorporated.

No known cultural resources or significant archaeological resources have been identified within the Project area. The Site has not been identified as either a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe. However, unanticipated, and accidental discovery of California Native American tribal cultural resources are possible during project implementation, especially during excavation, and have the potential to impact unique cultural resources. As such, Mitigation Measure CUL-1 has been included to reduce the potential for impacts to TCRs to a less than significant level.

4.18.5 Mitigation Measures

Implement Mitigation Measure CUL-1.

4.19 Utilities and Service Systems

4.19.1.1 Water Service

The Yuba County Water Agency (YCWA) is a major water rights holder on the Yuba River and serves unincorporated areas of Yuba County. YCWA's permits authorize direct diversion up to a total rate of 1,593 cubic feet per second from the Lower Yuba River from September 1 to June 30 for irrigation and other uses, and up to 1,250,000 acre-feet from October 1 to June 30 to storage in New Bullards Bar Reservoir (AECOM 2011). Untreated water used for agricultural purposes in the Project area is supplied by Browns Valley Irrigation District, which receives its water from YCWA.

No other potable or irrigation water infrastructure or facilities occur within the Project area.

4.19.1.2 Wastewater

Wastewater facilities are not provided within the Project Area.

4.19.1.3 Solid Waste

The Yuba-Sutter Regional Waste Management Authority (YSRWMA) is the area's regional waste management agency. YSRWMA was established in 1990 through a joint exercise of powers agreement between Sutter and Yuba counties and the cities of Live Oak, Marysville, Wheatland, and Yuba City for the purpose of providing reliable, economical, integrated, and environmentally sound waste management services to the residents, businesses, and organizations of the bi-county area (AECOM 2011).

The majority of the YSRWMA solid waste is disposed of at the Recology Ostrom Road Landfill. According to the information published by the California Department of Resources and Recovery ([CalRecycle] 2023a) in 2018, the Recology Ostrom Road Landfill received approximately 99.0 percent of Sutter and Yuba County's solid waste. As of June 2007, the Recology Ostrom Road Landfill had a remaining capacity of more than 39 million cubic yards and a cease operation date of December 31, 2066 (CalRecycle 2020b).

No solid waste treatment or storage facilities or service are provided at the Project Area; however, private septic systems are the primary form of solid waste management in Camptonville. There are no septic systems present on the diversion structure property or the water treatment plant property, but the owner of the property on which the transmission pipe crossing is located likely has a private residence septic system.

4.19.1.4 Electricity

PG&E provides electrical services to the Project Area through state-regulated public utility contracts. PG&E's ability to provide its services concurrently for each project is evaluated during the development review process. The utility company is bound by contract to update its systems to meet any additional demand. No new PG&E electrical facilities will be required to provide electricity to the Project.

4.19.2 Utilities and Service Systems (XIX) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒

No Impact.

4.19.2.1 Water

The Project itself would not require new water infrastructure or treatment facilities. The Project itself is a replacement and upgrade of a failing water infrastructure, supplying water to a treatment facility. The proposed improvements would ensure the system is working properly and supplying the Community of Camptonville with an adequate water supply. The Project would have no impact in this area.

4.19.2.2 Wastewater

The Proposed Project would not require wastewater service or facilities or impact any existing facilities in the area. The Proposed Project would have no impact on existing wastewater infrastructure or treatment facilities.

4.19.2.3 Storm Drainage

The Proposed Project would not require storm drainage facilities. No new facilities would be required to serve the Project and the Project would have no impact in this area.

4.19.2.4 Electric Power

The Proposed Project would not require electrical facilities. No new facilities would be required to serve the Project and the Project would have no impact in this area.

4.19.2.5 Natural Gas

The Proposed Project would not require natural gas facilities. As such, the Project would have no impact on natural gas facilities.

4.19.2.6 Telecommunications

The Proposed Project would not require telecommunication facilities. No new telecommunication facilities would be required to serve the Project and the Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☒

No Impact.

The Project would not result in the need for additional water supplies or expanded water facilities. The Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Result in a determination by the wastewater treatment provider, which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒

No Impact.

Implementation of the Project would not result in additional wastewater capacity as no additional demand would result for the pipeline replacement and diversion structure improvements. Therefore, the Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒

No Impact.

No recycling or waste disposal would be required as there is no operational component or maintenance required of the Proposed Project and therefore would not affect landfill capacity because the amount of construction debris requiring disposal would be minor and would only occur during the construction period (e.g., cardboard, wood scraps, plastic straps). There would be no impact.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project is required to comply with all state and federal statutes regarding solid waste. This impact is considered less than significant.

4.19.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.20 Wildfire

4.20.1 Environmental Setting

The risk of wildfire is related to a variety of parameters, including fuel loading (e.g., vegetation), fire weather (e.g., winds, temperatures, humidity levels and fuel moisture contents), and topography (e.g., degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area-to-mass ratio and require less heat to reach the ignition point, while fuels such as trees have a lower surface area to mass ratio and require more heat to reach the ignition point.

The County and Project Site lies in an area of high to very high wildfire risk, according to CAL FIRE (2007). The Project includes the demolition and replacement of a diversion structure, replacement of a section of transmission pipeline, and offsite improvements to the Project Site access road. Implementation of the Proposed Project would have no impact with regards to wildland fires.

4.20.2 Wildfire (XX) Environmental Checklist and Discussion

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project is located in a high to very high fire hazard severity zone. However, as the Project includes the implementation of a diversion structure demolition and replacement, replacement of a transmission pipeline within the Campbell Gulch creek, and offsite improvements to the Site access road, the Project would not impair an adopted emergency response plan or emergency evacuation plan. The

Project Site access road would be located off Mountain House Road, which is not considered to be an evacuation route, as discussed previously in section 4.9 above. Additionally, as the Project is a Community funded project, local authorities would be notified ahead of time that work would be commencing onsite, and therefore adequate steps would be taken to ensure the Project would not interfere with any such emergency response or evacuation plans. The Project would have a less than significant impact in this area.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from, a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐

Less Than Significant Impact.

As previously discussed, the Proposed Project is located in a very high fire hazard severity zone. However, the Project is the demolition and replacement of a diversion structure and associated facilities and would not include any occupied structures or operational components that would result in exposing Project occupants to pollutant concentrations or the uncontrolled spread of a wildfire. The Project would have a less than significant impact in this area.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐

Less Than Significant Impact.

As previously discussed, the Proposed Project is located in a very high fire hazard severity zone within the Campbell Gulch creek ravine, with existing access to the two separate Sites having inadequate access that would require regrading and clearing of the Site access road. However, all work being conducted would follow BMPs that would include safety procedures to reduce the risk of causing wildfires from construction activities in high and very high fire hazard severity zones. Therefore, the Project would have a less than significant impact in this area.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

No Impact.

The Proposed Project is the demolition and replacement of a diversion structure and replacement of a section of a water conveyance pipeline located in or near a state responsibility area or in a very high fire hazard severity zone. The Project does not include an operational component, or structure that would later become occupied with persons that would have the potential to be exposed to significant fire risk, as discussed above. The Project would have a less than significant impact in this area.

4.20.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.21 Mandatory Findings of Significance

4.21.1 Mandatory Findings of Significance (XXI) Environmental Checklist and Discussion

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

Less Than Significant with Mitigation Incorporated.

As discussed in Sections 4.4 and 4.5, the Proposed Project would have potential impacts to these resources. However, with implementation of mitigation measures proposed in the relevant sections of this IS, these potential impacts would be reduced to a level that is considered less than significant.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) 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)?	☐	☒	☐	☐

Less Than Significant with Mitigation Incorporated.

Implementation of the Proposed Project, in conjunction with other approved or pending projects in the region, has the potential to result in cumulatively considerable impacts to the physical environment. However, with implementation of mitigation measures proposed in the relevant subsections of this IS, these potential impacts would be reduced to a level that is considered less than significant.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project is the replacement of a diversion structure as well as a portion of a water transmission line within Cambell Gulch. The Proposed Project would not result in direct and indirect impacts to human beings.

5.0 LIST OF PREPARERS

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