DRAFT

Initial Study/Mitigated Negative Declaration for the City of Jackson Water Tank Replacement Project

City of Jackson, California

Lead Agency:

City of Jackson
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Jackson, CA 95642

Prepared By:

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August 2026

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DRAFT MITIGATED NEGATIVE DECLARATION

Lead Agency: City of Jackson

Project Location: The City of Jackson (City) Water Tank Replacement Project (Project) is located north of Kennedy Mine Road, northeast of State Route 49, and southwest of Jackson Gate Road. The approximately 5.51-acre Project Area corresponds to a portion of Sections 17 and 20, Township 6 North, and Range 11 east (Mount Diablo Base and Meridian) of the Jackson, California 7.5-minute quadrangle (U.S. Geological Survey [USGS] 1962 [photo inspected 1973]. The approximate center of the project area is located at 38.36774° latitude and -120.788804° longitude within the Upper Mokelumne Watershed (Hydrological Unit Code #18040012; USGS 2024).

Project Description Summary: The Project proposes to replace the Martell water storage reservoir (Martell Reservoir/Clearwell). The 1.3-million-gallon Martell Reservoir/Clearwell was built in the 1970s and is antiquated infrastructure that no longer meets current design standards and is in a state of disrepair. The reservoir will be replaced with two (1.3 million gallon) water storage tanks and new inlet and outlet piping will be installed to and from the new tanks and connect to existing fill and distribution pipes. All equipment from the water treatment plant will be demolished or salvaged as part of the Project. The existing building will be protected in place for continued use by the City for non-water system operations. A new building will be constructed for water system operations near the new tanks. The existing reservoir will be demolished to make room for the new tanks. The site will be re-graded to accommodate the new tanks and portions of the access road will be re-graded to improve site access for large vehicles. Grading improvements and valve replacements will be completed to improve site drainage.

Public Review Period: **August 28, 2026 – September 28, 2026**

Mitigation Measures Incorporated into the Project to Avoid Significant Effects:

Biological Resources

BIO-1: **Special-Status Plant Habitat Avoidance.** Where feasible, Project-related activities shall be restricted to previously developed or disturbed areas to avoid disturbance of habitats that may support special-status plants.

The Project impact limits shall be clearly demarcated prior to construction, and all workers shall be made aware of the impact limits and avoided areas. No work shall occur outside of the Project impact limits. All vehicles and equipment shall be restricted to the Project impact limits or existing designated access roads and staging areas.

If suitable habitat for special-status plants cannot be avoided, the applicant shall perform special-status plant surveys according to California Department of Fish and Wildlife (CDFW), California Native Plant Society, and U.S. Fish and Wildlife Service (USFWS) protocols. Surveys shall be conducted throughout all suitable habitat within the Project footprint and a 50-foot buffer, where accessible, to address potential direct and indirect impacts of the Project. Surveys shall be conducted by a qualified biologist and timed according to the identifiable period for target species (typically the blooming period). To the extent feasible, known reference populations will be visited prior to surveys to confirm target species are evident and identifiable at the time of the survey.

If no special-status plants are found, no further measures pertaining to special-status plants are necessary.

If special-status plants are identified onsite, the Project shall be modified to the extent feasible to prevent disturbance or loss of special-status plants. No-disturbance buffers shall be established around sensitive plant populations to be preserved in or adjacent to the Project Area. A 50-foot buffer should be maintained between Project activities and sensitive plant populations, unless otherwise determined by a qualified biologist. Buffer distances may vary between species depending on listing status, rarity, and other factors. Buffer areas will be clearly demarcated in the field, and no construction or ground-disturbing activities will occur within the boundaries of the delineated area.

If a special-status plant species is found and avoidance is not feasible, additional measures may be developed in consultation with CDFW, USFWS, and/or the California Environmental Quality Act (CEQA) Lead Agency. These measures may include restoration or permanent preservation of habitat for the special-status plant species or translocation (via seed collection and/or transplantation) from planned impact areas to unaffected suitable habitat.

BIO-2: **Crotch's Bumble Bee.** If Crotch's bumble bee is no longer a Candidate or formally Listed species under the California Endangered Species Act (ESA) at the time ground-disturbing activities occur, then no avoidance or minimization measures are proposed for the species.

Because Crotch's bumble bee nest locations are chosen on an annual basis and the site provides potential nesting habitat, a CDFW-approved Crotch's bumble bee biologist shall conduct three weekly preconstruction nesting surveys with focus on detecting active nesting colonies with the third and final survey conducted within 24-hours immediately prior to ground disturbing activities that are scheduled to occur during the flight season (February through October). Surveys shall be completed at a minimum of one person-hour of searching per three acres of suitable habitat during suitable weather conditions (sustained winds less than 8 miles per hour, mostly sunny to full sun, temperatures between 65 and 90˚F) at an appropriate time of day for detection (at least an hour after sunrise and at least two hours before sunset, though ideally between 9am-1pm). If no nests are found but the species is present, a full-time qualified biological monitor shall be present during initial vegetation or ground disturbing activities that are scheduled to occur during the queen flight period (February through March), colony active period (March through September), and/or gyne flight period (September through October). The Crotch's bumble bee biologist shall immediately notify CDFW of the detection as further coordination may be required to avoid or mitigate certain impacts. If an active Crotch's bumble bee nest is detected, an appropriate no disturbance buffer zone (including foraging resources and flight corridors essential for supporting the colony) shall be established around the nest to reduce the risk of disturbance or accidental take and the designated biologist shall coordinate with CDFW to determine if an Incidental Take Permit under Section 2081 of the California ESA will be required. Nest avoidance buffers may be removed at the completion of the flight season and/or once the qualified Crotch's bumble bee biologist deems the nesting colony is no longer active and CDFW agrees with the determination.

If initial grading is phased or delayed for any reason, the 24-hour preconstruction nesting survey will be repeated prior to ground-disturbing activities that are scheduled to occur during the same flight season (February through October). Three preconstruction Crotch's bumble bee nesting surveys shall be required in subsequent years of construction whenever vegetation and ground disturbing activities are scheduled to occur during the flight season (February through October) if nesting habitat is still present or has re-established and will be affected.

BIO-3: **Tricolored Blackbird.** Within 30 days prior to construction, a qualified wildlife biologist shall survey for nesting tricolored blackbirds within the Project work area and a 500-foot radius. If active nests are located during the preconstruction surveys, CDFW shall be notified. The nests shall be designated a sensitive area and protected by an avoidance buffer of 500 feet, or as otherwise determined in coordination with CDFW. The avoidance buffer shall be maintained until a qualified biologist has determined that the young have fledged and are independent of the nest. Monitoring of occupied nests shall be conducted by a qualified biologist during construction activities, and avoidance buffers may be adjusted if any agitated behavior by the nesting birds is observed.

BIO-4: **Special-Status Bird and Migratory Bird Treaty Act–Protected Birds.** During the nesting season, a preconstruction nesting bird survey shall be conducted within 14 days prior to the commencement of Project-related activities to identify active nests that could be impacted by construction.

The preconstruction nesting bird survey shall include accessible areas within 500 feet of the Project boundaries for raptors and 100 feet for other birds protected under the Migratory Bird Treaty Act.

If active nests are found, a no-disturbance buffer shall be established around the nest. A qualified biologist, in consultation with CDFW, shall establish a buffer distance. The buffer shall be maintained until the nestlings have fledged, to be determined by a qualified biologist. No further measures are necessary once the young are independent of the nest or the nest is otherwise no longer occupied.

BIO-5: **Special-Status Bats and Maternity Roosts.** At least 30 days prior to initiation of Project activities, a bat habitat assessment shall be conducted by a qualified bat biologist to examine trees and structures for suitable bat roosting habitat. High-quality habitat features (e.g., large tree cavities, basal hollows, loose or peeling bark, abandoned structures) will be identified and the area around the features searched for bats and bat sign (i.e., guano, staining, culled insect parts).

If suitable bat roosting habitat is identified, the feature shall be avoided and protected in place to the extent feasible. A buffer area shall be established around the roost site to minimize disturbance of roosting bats. The size of the buffer area will be determined in consultation with CDFW.

If impacts to suitable trees or structures cannot be avoided, removal shall be timed to occur outside of the maternity roosting season (generally April 1 to August 31) and only when nighttime low temperature are above 45°F and rainfall is less than 1/2 inch in 24 hours.

If trees with identified bat roosting habitat are to be removed, a two-phase removal process conducted over two consecutive days shall be used. On the first day, tree limbs and branches will be removed, using chainsaws only. Removal will avoid limbs with cavities, cracks, crevices, or deep bark fissures. On the second day, the remainder of the tree will be removed.

BIO-6: **Aquatic Resources.** Conduct an Aquatic Resources Delineation (ARD) in accordance with the Corps of Engineers Wetlands Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. Submit the ARD to the U.S. Army Corps of Engineers (USACE) and obtain a verification, Approved Jurisdictional Determination, or Preliminary Jurisdictional Determination.

The Project shall avoid aquatic resources to the extent feasible. Aquatic resources located within 50 feet of the Project footprint will be designated as Environmentally Sensitive Areas. The Environmentally Sensitive Areas shall be clearly demarcated with orange construction

fencing or other visible barrier, and no Project-related activities shall be permitted within the delineated area.

To minimize potential indirect effects, the applicant shall prepare and implement an Erosion and Sediment Control Plan to avoid and minimize erosion and runoff to wetlands and other waters that are to remain within or adjacent to the Project Area.

If the Project will disturb at least 1 acre of land, the Project applicant shall obtain coverage under the General Construction Storm Water Permit from the Regional Water Quality Control Board (RWQCB) by preparing a storm water pollution prevention plan and implementing best management practices to reduce water quality effects during construction.

Authorization under the Section 404 of the federal Clean Water Act must be obtained from the USACE prior to discharging any dredged or fill materials into any Waters of the U.S. Mitigation measures will be developed as part of the Section 404 Permit process to ensure no net loss of wetland function and values. Mitigation for permanent impacts to Waters of the U.S. is typically required at a minimum 1:1 ratio; however, final mitigation requirements will be developed in consultation with the USACE.

If temporary impacts to Waters of the U.S. or State will occur, the applicant shall prepare a site restoration plan describing the methods that will be used to restore impacted aquatic features to pre-Project conditions. The restoration plan will include, at a minimum, the proposed methods for stabilizing and revegetating the site, any maintenance requirements (e.g., watering, invasive species control), the expected timeframe for restoration.

If discharges will occur to Waters of the U.S., Section 401 Water Quality Certification must be obtained from the RWQCB before a 404 Permit can be issued. An application for a 401 Water Quality Certification will be prepared and submitted to the RWQCB in accordance with the State Water Resources Control Board's *State Wetland Definition and Procedures for the Discharge of Dredged or Fill Material to Waters of the State* (Procedures; April 2021).

If aquatic resources are verified by the USACE as not meeting the definition of Waters of the U.S., then they would likely be considered Waters of the State. If discharges to Waters of the State will occur, the applicant shall obtain Waste Discharge Requirements (WDRs) or a waiver of WDRs from the RWQCB as required pursuant to the Porter-Cologne Water Quality Control Act.

If alteration of the bed, channel, or bank of an ephemeral drainage is proposed, or if the Project will impact associated aquatic or riparian vegetation, the applicant shall notify CDFW of the Proposed Project activities and obtain a Streambed Alteration Agreement prior to Project implementation.

BIO-7: **Oak Woodlands.** Where feasible, avoid or minimize ground disturbance within the oak woodland. Mapping of oak woodland resources within the project area, and demarcation of avoidance zones during construction may be required.

If necessary, a Certified Arborist or qualified biologist shall be present during tree trimming and initial work within the oak woodland.

If oak woodland is to be removed, one of the following bulleted measures shall be implemented to mitigate the impact from loss of oak woodland habitat pursuant to Public Resources Code (PRC) Section 21083.4:

- Onsite mitigation, which requires the dedication in perpetuity of a conservation easement on mitigation lands that are contiguous to the Project and are biologically functional.
- Planting replacement trees, including maintaining plantings and replacing dead or diseased trees for seven years after the trees are planted.
- A monetary contribution to the Oak Woodlands Conservation Fund for the purpose of purchasing oak woodlands conservation easements.

Cultural Resources

CUL-1: **Unanticipated Discoveries.** There always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources. Both CEQA and Section 106 of the National Historic Preservation Act (NHPA) require the lead agency to address any unanticipated cultural resource discoveries during Project construction. Therefore, ECORP Consulting, Inc. recommends the following procedures:

- 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 by CEQA or a historic property under Section 106 of the 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 2) that 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 (Assembly Bill [AB] 2641). The archaeologist shall notify the Amador County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 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 Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) for the Project (§ 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 (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 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.

Paleontological Resources

PALEO-1: **Discovery of Unknown Paleontological Resources.** If any paleontological resources (i.e., fossils) are found during Project construction, construction shall be halted immediately in the subject area, and the area shall be isolated using orange or yellow fencing until the City and Amador County are notified and the area is cleared for future work. A qualified paleontologist shall be retained to evaluate the find and recommend appropriate treatment of the inadvertently discovered paleontological resources. If the City resumes work in a location where paleontological remains have been discovered and cleared, the City will have a paleontologist onsite to confirm that no additional paleontological resources are in the area.

Noise

NOI-1: **Construction Hours.** Project construction shall be limited to the Amador County standard exempted hours of 7:00 a.m. through 9:00 p.m., Monday through Saturday, and 9:00 a.m. through 6:00 p.m., Sundays.

Tribal Cultural Resources

TCR-1: **Unanticipated Discovery of Tribal Cultural Resources.** If potentially significant TCRs are discovered during ground disturbing activities, all work shall cease within 50 feet of the find. A Native American Representative from traditionally and culturally affiliated Native American Tribes that requested consultation on the Project shall be immediately contacted and invited to assess the significance of the find and make recommendations for further evaluation and treatment, as necessary. If deemed necessary by the City, a qualified cultural resources specialist, who meets the Secretary of Interior's Standards and Qualifications for Archaeology, may also assess the significance of the find in joint consultation with Native American representatives to ensure that Tribal values are considered. Work at the discovery location cannot resume until the City, in consultation as appropriate and in good faith, determines that the discovery is either not a TCR, or has been subjected to culturally appropriate treatment, if avoidance and preservation cannot be accommodated.

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Appendix B – Biological Resources Assessment for the Jackson Water Tank Replacement Project, ECORP Consulting, Inc., 2024

Appendix C – Cultural Resources Inventory Report (Confidential), ECORP Consulting, Inc., 2024

Appendix D – Jackson Water Tank Replacement Project Energy Consumption Analysis Memorandum, ECORP Consulting, Inc., 2024

Appendix E – Jackson Water Tank Replacement Project Noise Impact Memorandum, ECORP Consulting, Inc., 2024

LIST OF ACRONYMS AND ABBREVIATIONS

Term/Acronym	Definition
°F	degrees Fahrenheit
AAD	Amador Air District
AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
ACRA	Amador County Recreation Agency
ACSD	Amador County Sheriff's Department
ACUSD	Amador County Unified School District
AFPD	Amador Fire Protection District
ALUCP	Airport Land Use Compatibility Plan
AMI	Area Median Income
ANSI	American National Standards Institute
APE	Area of Potential Effects
ARD	Aquatic Resources Delineation
ARSA	Amador Regional Sanitation Authority
AWA	Amador Water Agency
AWS	Amador Water System
Basin Plans	Water Quality Control Plans Set Central Valley RWQCB
BCC	Bird of Conservation Concern
BMP	Best Management Practice
BRA	Biological Resources Assessment
BSA	Biological Study Area

CAA	Clean Air Act
CAL FIRE	California Department of Forestry and Fire Protection
cal.	calibrated
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAWP	Central Amador Water Project
CBRA	Coastal Barrier Resources Act
CBRS	Coastal Barrier Resources System
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	methane
CHRIS	California Historical Resources Information System
City	City of Jackson
CJWD	City of Jackson Water Department
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
Cortese	Hazardous Waste and Substances Sites
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CWA	Clean Water Act
CWSRF	Clean Water State Revolving Fund
CZMA	Coastal Zone Management Act
CZMP	Coastal Zone Management Program

DAC	Disadvantaged Community
dB	decibels
dBA	A-weighted decibels
DOC	California Department of Conservation
DPM	Diesel Particulate Matter
DPS	Distinct Population Segment
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EAP	Energy Action Plan
ECORP	ECORP Consulting, Inc.
EDCAQMD	El Dorado County Air Quality Management District
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
EMS	Emergency Medical Services
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FPPA	Farmland Protection Policy Act
FTA	Federal Transit Administration
GHG	greenhouse gas
HCD	California Department of Housing and Community Development
IEPR	Integrated Energy Policy Report
IRWMP	Integrated Regional Water Management Plan
IS/MND	Initial Study/Mitigated Negative Declaration
JFD	Jackson Fire Department
km	kilometer
L_{dn}	Day-Night Average Noise Level
LEA	Local Enforcement Agency
L_{eq}	Equivalent Noise Level
L_{max}	Maximum Noise Level
LUST	Leaking Underground Storage Tank

MBTA	Migratory Bird Treaty Act
MCAB	Mountain Counties Air Basin
MLD	Most Likely Descendant
mph	miles per hour
MRZ	Mineral Resource Zone
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSL	mean sea level
N/A	Not Applicable
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NIOSH	National Institute for Occupational Safety and Health
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NOI	Notice of Intent
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
NWSRS	National Wild and Scenic Rivers System
O_3	ozone
OEHHA	California Office of Environmental Health Hazard Assessment
OHWM	Ordinary High Water Mark
PG&E	Pacific Gas and Electric Company
PM	Particulate Matter
PM_{10}	Particulate Matter Less Than 10 Microns in Diameter
$PM_{2.5}$	Particulate Matter Less Than 2.5 Microns in Diameter
PPV	peak particle velocity
PRC	Public Resources Code

Project	City of Jackson Water Tank Replacement Project
RHA	Rivers and Harbors Act
ROG	Reactive Organic Gases
RTP	Regional Transportation Plan
RWD	Report of Waste Discharge
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SDWA	Safe Drinking Water Act
SHPO	State Historic Preservation Officer
SLF	Sacred Lands File
SMARA	Surface Mining and Reclamation Act
SO_2	sulfur dioxide
SOI	Sphere of Influence
SR	State Route
SRA	State Responsibility Area
SSC	Species of Special Concern
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TCR	tribal cultural resource
Title 24	Title 24, Part 6, of the California Code of Regulations
TWTP	Tanner Water Treatment Plant
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VHFHSZ	Very High Fire Hazard Severity Zone
VOC	Volatile Organic Compound
WBWG	Western Bat Working Group
WDR	Waste Discharge Requirement
WWTP	Waste Water Treatment Plant

1.0 BACKGROUND

1.1 Summary

Project Title:	City of Jackson Water Tank Replacement Project
Lead Agency Name and Address:	City of Jackson 33 Broadway Jackson, CA 95642
Contact Person and Phone Number:	Trevor Hoaas thoaas@ci.jackson.ca.us 209-273-8780
Project Location:	The City of Jackson Water Tank Replacement Project Area is located just outside the City of Jackson limits, to the north of Kennedy Mine Road, to the northeast of State Route 49, and to the southwest of Jackson Gate Road.
General Plan Designation:	City of Jackson – Urban Reserve Amador County – General Agricultural
Zoning:	Amador County – Single Family Residential – Agricultural

1.2 Introduction

The City of Jackson (City) is the Lead Agency for this California Environmental Quality Act (CEQA) Initial Study. This Initial Study has been prepared to identify and assess the anticipated environmental impacts of the City of Jackson Water Tank Replacement Project (Project) to satisfy CEQA (Public Resources Code [PRC], Section 21000 et seq.) and state CEQA Guidelines (Title 14, California Code of Regulations [CCR] 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences before approving those projects. The City will use this CEQA Initial Study to determine which CEQA document is appropriate for the Project: Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report (EIR).

The City is seeking funding for the Proposed Project under the State Water Resources Control Board's (SWRCB) Clean Water State Revolving Fund (CWSRF) Program, which is partially funded through the U.S. Environmental Protection Agency (USEPA). Because of the federal nexus with the USEPA, projects seeking funding through the CWSRF Program are subject to federal laws and regulations (e.g., federal "cross-cutters"). Under the CWSRF Program, the SWRCB uses a project's CEQA document along with federal cross-cutting documentation in place of a National Environmental Policy Act (NEPA) document; this document is termed a "CEQA-Plus" document. Section 5 addresses the Project's compliance with federal laws and regulations to satisfy the CEQA-Plus requirements.

In accordance with CEQA, this Initial Study/Mitigated Negative Declaration (IS/MND) will be circulated for a 30-day public review and comment period. Written comments on the Draft IS/MND should be submitted to:

Dana Knight
Administrative Assistant
Jackson City Hall
33 Broadway
Jackson, CA 95642

2.0 PROJECT DESCRIPTION

2.1 Project Background

The City, the county seat of Amador County, operates a water system with 2,211 connections serving a population of 5,100 customers. State inspections of the system concluded that the current storage reservoir, built in the 1970's, is in disrepair and is undersized. Currently the existing 1.3-million-gallon Martell Reservoir/Clearwell is antiquated infrastructure that no longer meets today's design standards. The steel beams supporting the roof are rusted, and many holes exist throughout the sheet metal roof of this earth entrenched pit. Furthermore, the system needs additional storage capacity, particularly since it is potentially vulnerable to wildfire risks. Per recommendation by the Division of Drinking Water, the City will be applying for planning phase and consequently construction phase funding to replace the existing reservoir with a larger, more modern design.

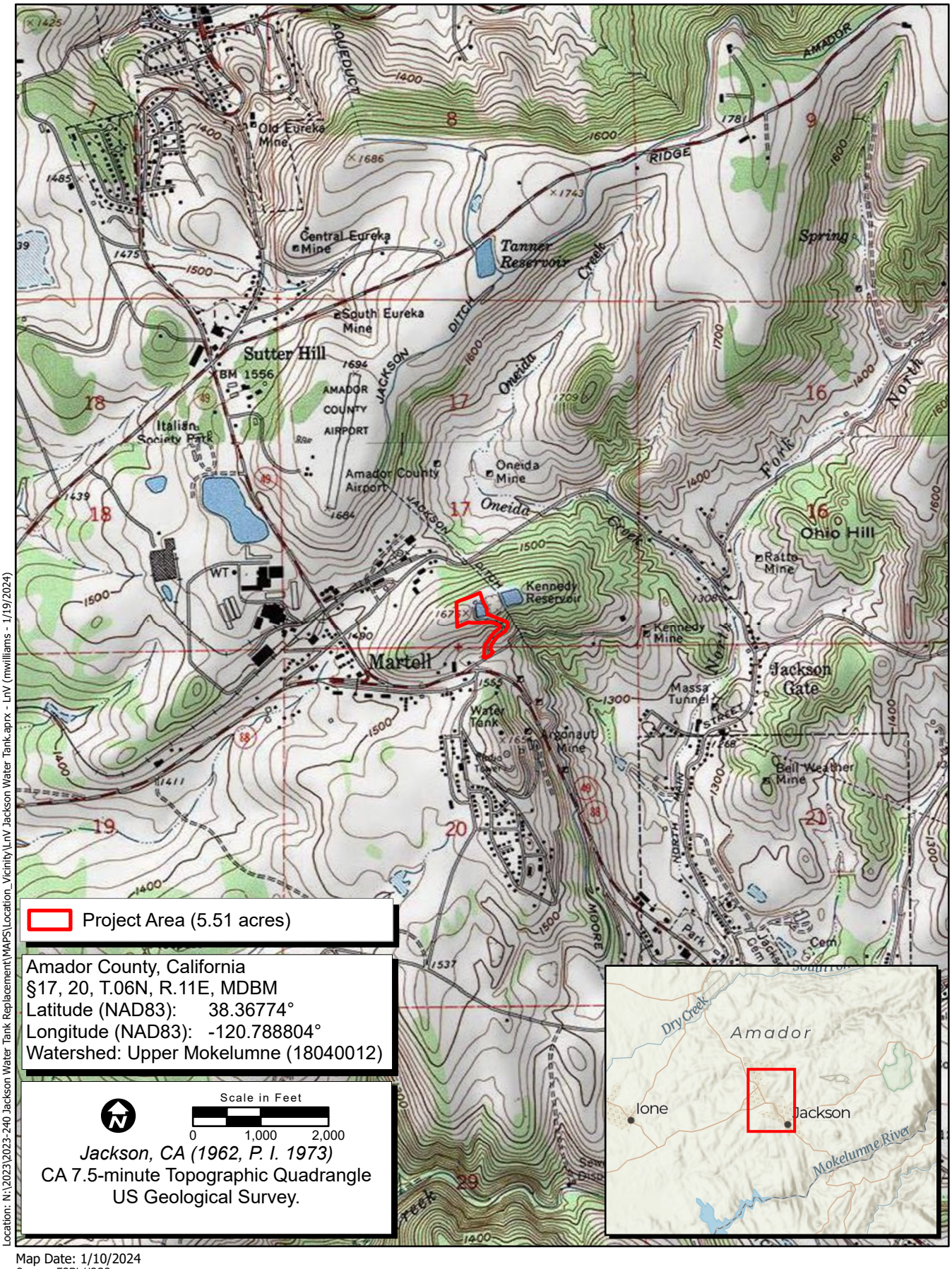
2.2 Project Location

The Project is located north of Kennedy Mine Road, northeast of State Route (SR) 49, and southwest of Jackson Gate Road (Figure 2-1). The Project proposed by the City plans to replace the Martell water storage reservoir. The approximately 5.51-acre Project Area corresponds to a portion of Sections 17 and 20, Township 6 North, and Range 11 east (Mount Diablo Base and Meridian) of the "Jackson, California" 7.5-minute quadrangle (U.S. Geological Survey [USGS] 1962 [photo inspected 1973]; Figure 2-1 and Figure 2-2). The approximate center of the Project Area is located at 38.36774° latitude and 120.788804° longitude within the Upper Mokelumne Watershed (Hydrological Unit Code #18040012; USGS 2024).

2.3 Project Characteristics

The Proposed Project, replacement of the Martell water storage reservoir, is located on property owned by the City just north of the City limits. The Project Area is accessible via a City-maintained access road that passes through the Kennedy Mine property, which borders the Project Area to the south and east. The Project Area contains both active and inactive water system infrastructure The City water system serves approximately 5,100 residents across 2,211 water service connections. The City's Martell Reservoir/Clearwell serves the entire water system.

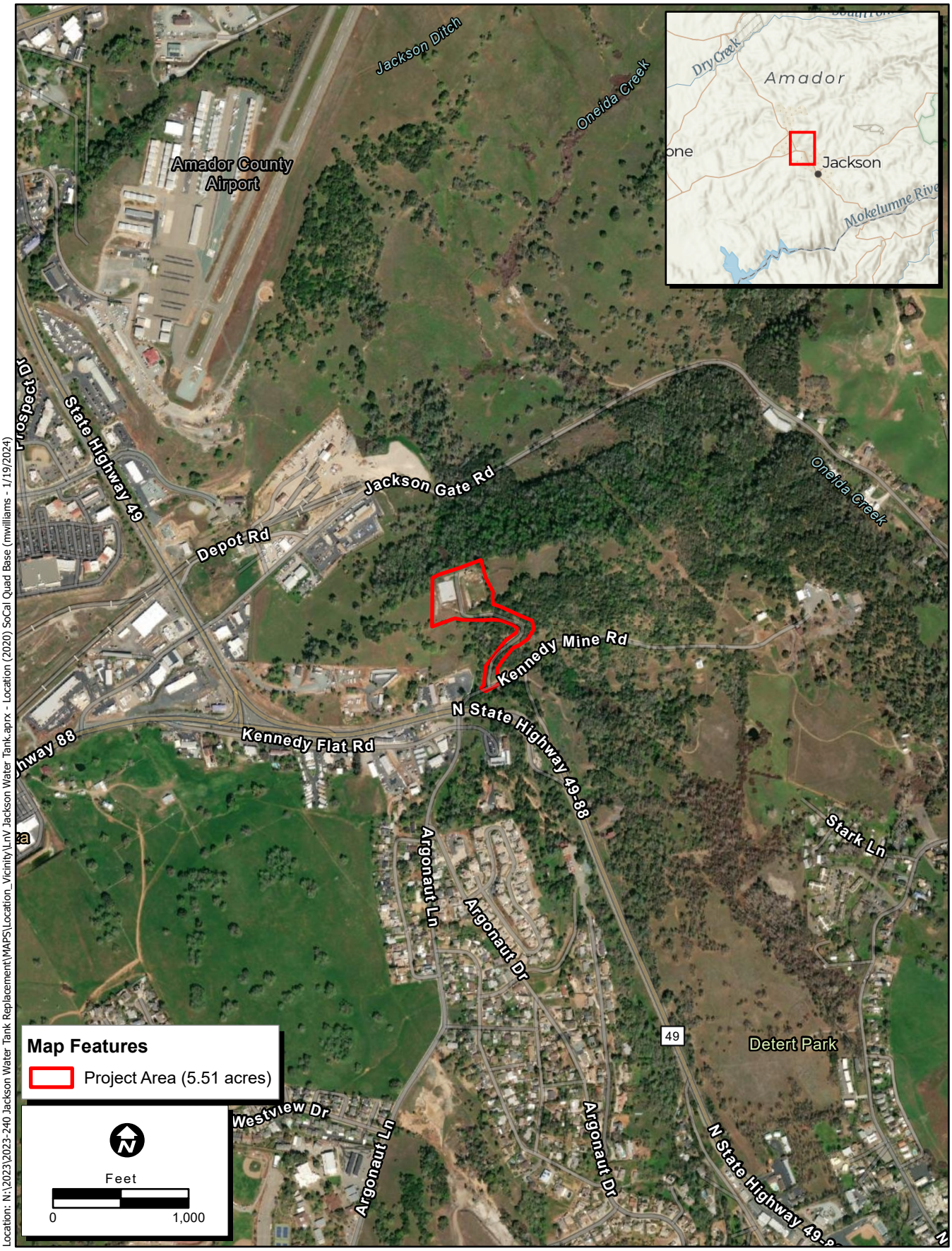
The City's 1.3-million-gallon Martell water storage reservoir (Martell Reservoir/Clearwell) was built in the 1970s and is antiquated infrastructure that no longer meets current design standards. State inspections of the reservoir concluded it is in disrepair and undersized for current system demands and fire flow. The steel beams supporting the roof are rusted and there are many holes in the sheet metal roof. The City has procured planning grant funds from Department of Water Resources State Revolving Fund to complete the design of a replacement for the reservoir that meets current design standards and is sized for current water demands and fire flows. The City will pursue construction funding once the design is substantially complete.



Location: N:\2023\2023-240 Jackson Water Tank Replacement\MAPS\Location_Vicinity\LnV Jackson Water Tank.aprx - LnV (mwilliams - 1/19/2024)

Map Date: 1/10/2024
Sources: ESRI, USGS

Figure 2-1. Project Location and Vicinity



Map Date: 1/10/2024
Sources: ESRI, Maxar (2022)

Figure 2-2. Project Aerial Location

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2023-240 Jackson Water Tank Replacement

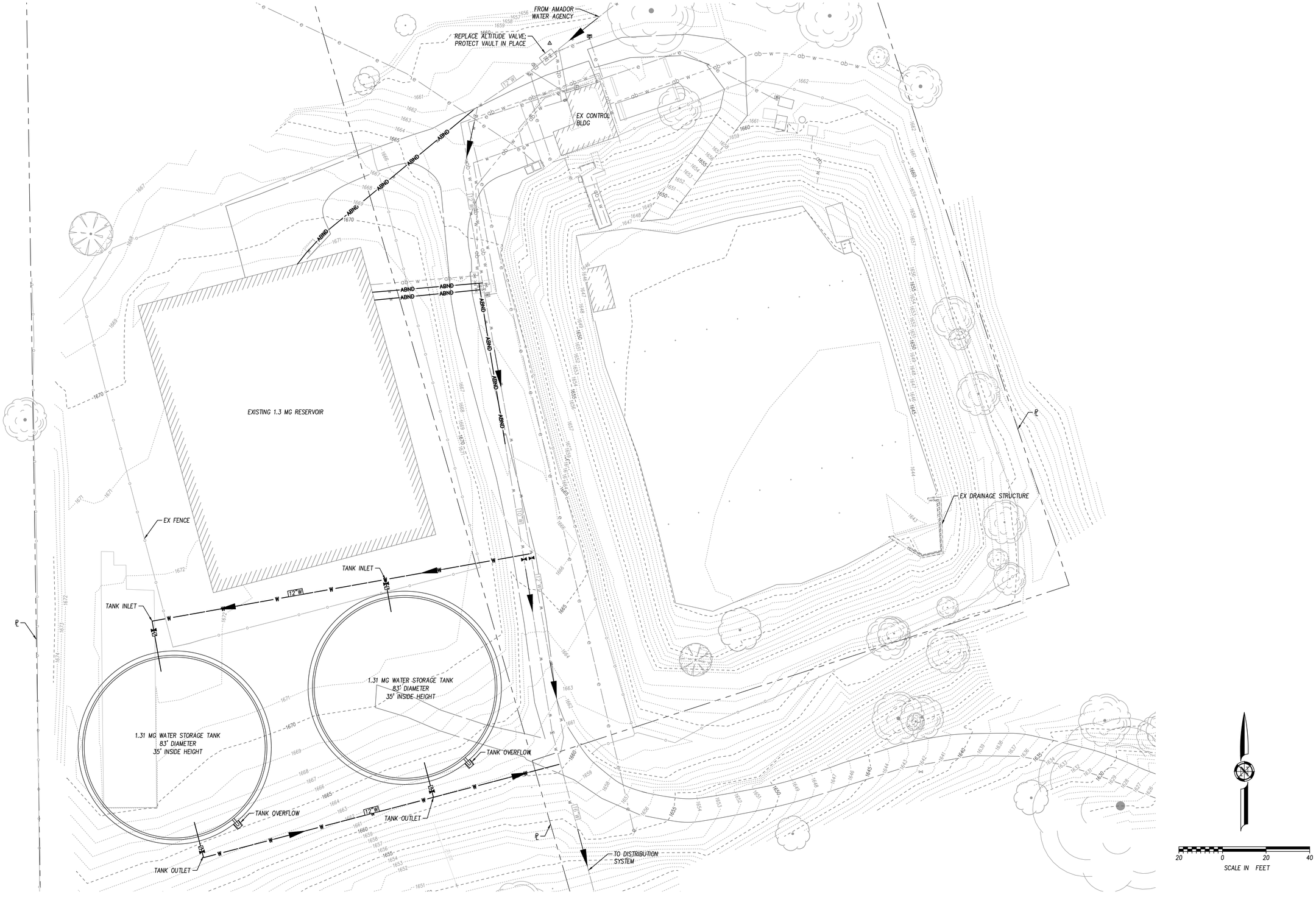
Design of the replacement for the Martell Reservoir/Clearwell includes determining the effect of the new tanks on distribution system pressures and sizing the tanks for current system demands and fire flow. The Proposed Project will replace the existing Martell Reservoir/Clearwell with two storage tanks for operational flexibility. Each tank will have a capacity of 1.31 million gallons and will be 83 feet in diameter and 35 feet in height. The location of the two new tanks on the Project Area will be west of the existing Martell Reservoir/Clearwell (Figure 2-3). New inlet and outlet piping will be installed to and from the new tanks and connect to existing fill and distribution pipes. All equipment from the water treatment plant will be demolished or salvaged as part of the Project. The existing treatment plant building that was previously repurposed into a site office, will be protected in place for continued use for non-water system City operations. A new building will be constructed for water system operations and sized appropriately for current site needs. The new building will be constructed west of the new storage tanks within the proposed water system site fencing. The existing Martell Reservoir/Clearwell will be demolished to create space for the new storage tanks. Construction of the new tanks requires demolition of the existing reservoir prior to tank construction. To maintain water storage capacity during construction, a temporary bolted steel water storage tank will be erected on site for the duration of construction of the new tanks. The bolted steel tank will have approximately 1.1 million gallons of water storage and will be 105 feet in diameter and 28 feet tall. The temporary tank will be constructed on a graded pad south of the existing reservoir. The tank will be demolished once the new tanks are online, but the graded pad will remain for future use.

2.4 Project Staging

Temporary staging would occur on site at the water treatment plant. This site is paved, graveled, and currently highly disturbed.

2.5 Project Timing

This schedule may be extended pending approval of the construction contract and issuing a notice of award, and for potential extended supply times for materials. Also, current supply chain issues have increased lead times for some materials (pipe and fittings) and may delay the start date for groundbreaking. See Table 2-1 for a detailed breakdown of anticipated construction activities and approximate timeframe to completion.



NO.	REVISIONS	BY	DATE
1			
2			
3			
4			
5			
6			

BENCH MARK ELEV : XX DATUM : XX
DESCRIPTION :
X
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X
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DESIGN BY :	K.SETHARES
DRAWN BY :	K.SETHARES
CHECKED BY :	S.LYNCH
SCALE :	1" = 20'
DATE :	4/4/2024
PROJ NO. :	20100

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
APRIL 2024

BEN|EN
TRUSTED ENGINEERING ADVISORS

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

JACKSON WATER TANK REPLACEMENT

CITY OF JACKSON CALIFORNIA

SITE PLAN - ALTERNATIVE 2

CALIFORNIA

C-2
2 OF 2

Login Name: kasthores
Plot Date: 4/4/2024 - 8:34 am
Plot By: Kelly Asthores
File Name: C:\Users\kasthores\Bennett Engineering\Bennett - Documents\Projects\20100--Jackson-Water Tank Replacement\03-PLANS\MASTERS\SHEETS\20100_05 - C-01 SITE PLAN.dwg
XREFS: 20100_XR-UTIL | 20100_XR-AERIAL | 20100_XR-SURVEY | 20100_XR-SITE | 20100_XR-TOPO | BDR-20100_A_24x36 | 20100_SBL STAMP&SIGN

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Table 2-1. Construction Operations	
Description of Activity	**Duration (approximate)**
Excavation Operations*	
• Rubber tired backhoe loader(s) (sized up to Cat 450) • Trench excavator(s) (mini X (Cat 303)) • Wheel loader(s) (likely no larger than Cat 938), • Trenching machines (not expected) • Rock removal by hydraulic hammer on excavator (not expected to be required or very limited based on geotechnical investigation) • Compaction via in-trench hand compaction (wacker, vibraplate) • Sweeper • Air Compressor(s)	5 months
Hauling Operations*	
• Rubber tired dump truck(s) • l transfer truck and trailers • Semi bottom and end dumps possible but not likely considering narrow and winding access	3 months
Final Paving Operations	
• Roller compactor(s) • Pavers • asphalt grinders • asphalt cutters • concrete saw • Sweeper	1 months
Tank and Piping Construction Operations*	
• Rubber tired backhoe loader(s) (sized up to Cat 450) • Trench excavator(s) (mini X (Cat 303)) • Wheel loader(s) (likely no larger than Cat 938), • Compaction via in-trench hand compaction (wacker, vibraplate) • Concrete trucks • Shotcrete machines • Prestressing jacks	12 months
Other Equipment*	
• Sprayers, • air compressor, • portable generator	6 months
Total Duration	24 months

Note: *Some of these activities will be done concurrently

2.6 Regulatory Requirements, Permits, and Approvals

Table 2-2 summarizes the approvals and regulatory permits that may be required for implementation of the Proposed Project:

Table 2-2. Regulatory Requirements, Permits, and Approvals

Agency or Organization	Approval or Permit
State Water Resources Control Board	• National Pollutant Discharge Elimination System permit • Construction Storm Water General Permit (including the development and implementation of a Storm Water Pollution Prevention Plan) • Best management practices

2.7 Consultation with California Native American Tribe(s)

The City has notified the following California Native American tribes traditionally and culturally affiliated with the geographic area of the Proposed Project: Buena Vista Rancheria of Me-Wuk Indians, Calaveras Band of Mi-Wuk Indians, Chicken Ranch Rancheria of Me-Wuk Indians, Ione Band of Miwok Indians, Jackson Rancheria Band of Miwuk Indians, Nashville Enterprise Miwok-Maidu Nishinam Tribe, United Auburn Indian Community of the Auburn Rancheria, Washoe Tribe of Nevada and California, and Wilton Rancheria. No tribes have requested consultation pursuant to PRC Section 21080.3.1. Section 4.18 of this IS/MND provides a summary of the notification process.

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. ☐

Name: _____ Date: 8/20/2026

Robert Kightlinger -City of Jackson

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4.0 ENVIRONMENTAL CHECKLIST AND DISCUSSION

4.1 Aesthetics

4.1.1 Environmental Setting

4.1.1.1 Visual Character of the Project Area

The visual character of the City can be characterized into two primary landform types: mountains (mountainsides, slopes, ridges and peaks) and valley (open meadow within the valley floor and gently rolling hills). In general, the dominant scenic/visual features within the City are the hills and the surrounding ridges and peaks. Views of these resources are mostly available from roads located on elevated hills. Jackson Creek and the old quartz mine are among the most significant visual features viewed from within the valley.

4.1.1.2 Regional Setting

State Scenic Highways

A scenic highway is generally defined by the California Department of Transportation (Caltrans) as a public highway that traverses an area of outstanding scenic quality, containing striking views, flora, geology, or other unique natural landscape attributes. A highway may be designated scenic depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the travelers' enjoyment of the view.

Only one highway section in Amador County is listed as an officially Designated Scenic Highway by the Caltrans Scenic Highway Mapping System; the segment of SR-88 in the eastern portion of the county along the southern boundary of Amador County. This route traverses the Sierra Nevada Mountains to the east. The City is not visible from this roadway segment. SR-88 and SR-49 through the City are also listed "eligible" but are not currently officially designated (Caltrans 2024).

Scenic Corridors

A scenic corridor is the view from the road that may include a distant panorama and/or the immediate roadside area. A scenic corridor encompasses the outstanding natural features and landscapes that are considered scenic. It is the visual quality of the man-made or natural environments within a scenic corridor that are responsible for its scenic value. Commonly the physical limits of a scenic corridor are broken down into foreground views (zero to one quarter mile) and distant views (over one quarter mile). In addition to distinct foreground and distant views, the visual quality of a scenic corridor is defined by special features, which include the following:

- *Focal points* – Prominent natural or man-made features which immediately catch the eye
- *Transition areas* – Locations where the visual environment changes dramatically
- *Gateways* – Locations which mark the entrance to a community geographic area

The City of Jackson General Plan does not specifically designate any scenic corridors within the City. However, it does mention a variety of aesthetic and cultural resources within the community. These include the Wheels Park in the mother lode region (0.86 miles away from the Proposed Project) and the St. Sava Mission (approximately 2.0 miles from the Proposed Project). The Proposed Project is not within the City limits but is within the City's Sphere of Influence (SOI). Caltrans provides a Vista Point on the western side of Highway 49/88 at the northern entrance to the City.

4.1.2 Aesthetics (I) Environmental Checklist and Discussion

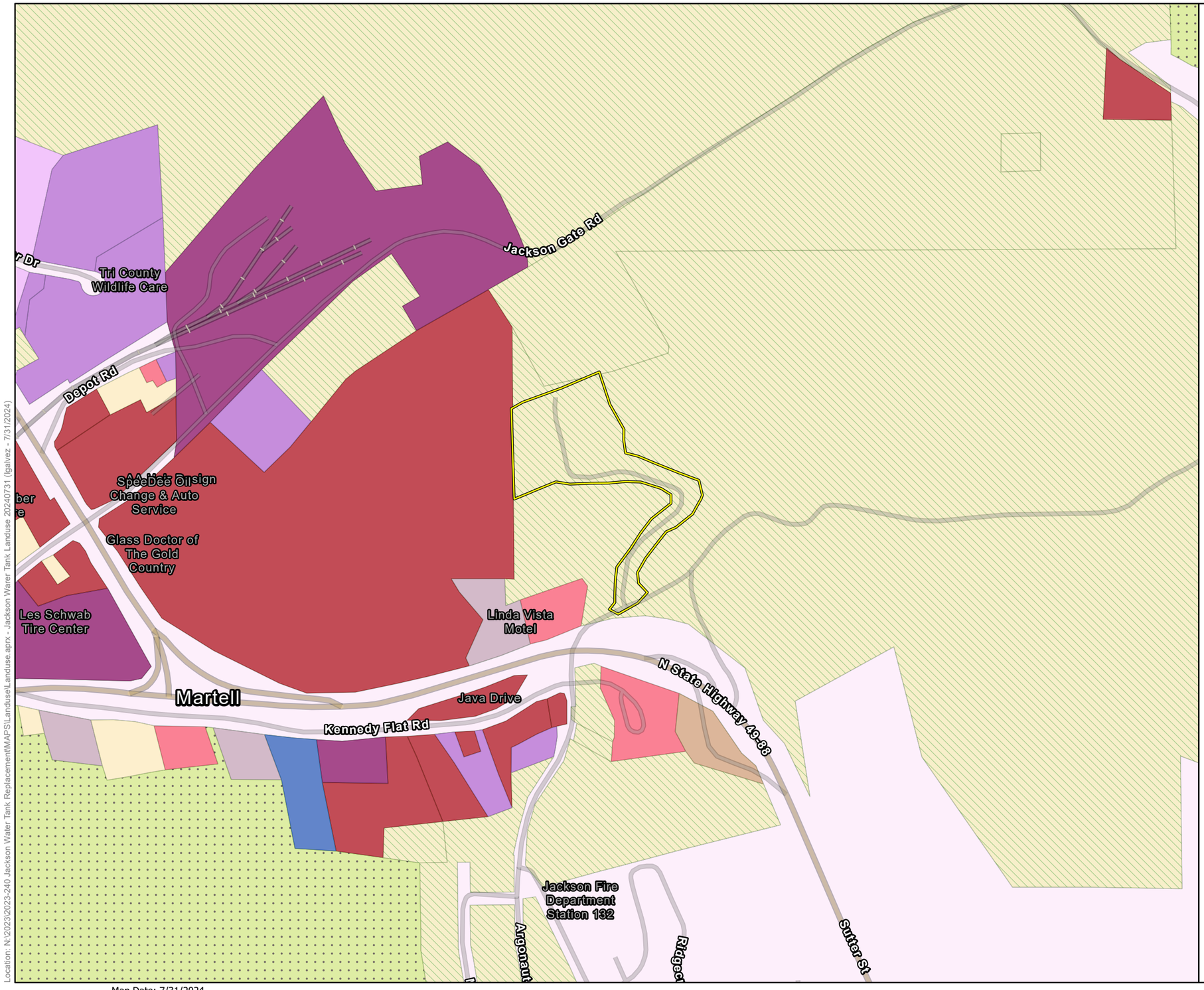
Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐

Less Than Significant Impact.

A scenic vista is a viewpoint that provides a distant view of highly valued natural or manufactured landscape features for the benefit of the general public. Typical scenic vistas are locations where views of rivers, ocean, hillsides, and open space areas can be obtained as well as locations where valued urban landscape features can be viewed in the distance. Per the Open Space and Conservation Element of the City of Jackson General Plan, it is the policy of the City to preserve the floodway, riparian, and steep hillside areas as much as practicable, but not at the expense of overriding economic considerations. The City's visual image is largely defined by single-family residential neighborhoods, some multi-family complexes, and a few commercial sites (see Figure 4.1-1 for surrounding land uses).

The Proposed Project involves demolition of the existing Martell Reservoir/Clearwell and replacing it with two new water storage tanks directly south of the existing reservoir. The Proposed Project will not change the use of the Project Area or add infrastructure that would change the use or purpose of the site. The two new water storage tanks will be painted to match the surrounding land/hill side (neutral tan) and will not be contradictory to the equipment currently onsite. Therefore, the Proposed Project will not change the visual characteristics of the site.

Any impacts to a scenic vista would be temporary during construction activities. Once the Proposed Project is completed there will be no change in the visual character or quality of public views of the site. Therefore, the Proposed Project would have a less than significant impact to visual scenic vistas.



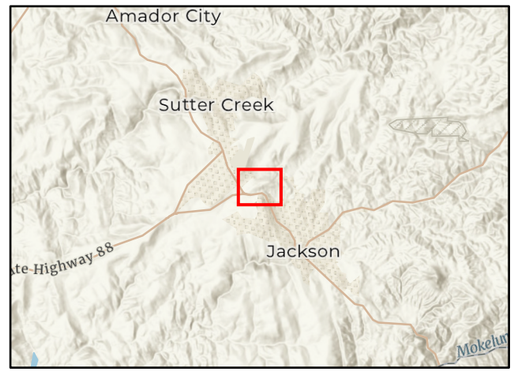
Map Contents

- Biological Study Area - 5.51 ac.

Landuse

- AG - Exclusive Agriculture
- C1 - Retail Commercial and Office
- C2 - Heavy Commercial
- H - Highway Commercial - Recreation
- LM - Light Manufacturing
- M - Manufacturing
- MM - Medium Manufacturing
- R1 - Single Family Residential
- R1A - Single Family Residential & Ag
- NC - Not Classified
- T2 - Mobile Home Park - Camp
- USA - Bureau of Land Management

Sources: Amador County GIS Viewer



Location: N:\2023\2023-240 Jackson Water Tank Replacement\MAPS\Landuse\Landuse.aprx - Jackson Water Tank Landuse 20240731 (jgalvez - 7/31/2024)

Map Date: 7/31/2024

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 300

Figure 4.1-1. Surrounding Land Use Map

2023-240 City of Jackson Water Tank Replacement

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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?	☐	☐	☒	☐

Less Than Significant Impact.

A portion of SR-88 has been designated as a scenic highway, and the rest of SR-88 and SR-49 may be eligible for designation. However, the Proposed Project is not located near or within a state designated scenic highway and will not damage scenic resources, including but not limited to trees, outcroppings, and historic buildings within a state scenic highway. Additionally, at this time, Project work does not involve tree removal. Any impacts would be less than significant.

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?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project is within an urbanized area that has both commercial and residential uses intersected by Highway 88 (Figure 4.1-1). Project construction activities would introduce equipment and machinery into the viewshed of the limited viewer groups that would have views of the Project Area, creating temporary effects on limited views of Project Area during construction. Once construction is complete, the new water tanks will only be visible from a very short stretch of Highway and at the intersection of Highway 88 and Argonaut Lane. Views of the Project Area will also be partially visible from the parking lot of the commercial complex just south of highway 88 and from the church and hotel parking lot just north of Highway 88. Views of the Project Area from surrounding public roadways or business to the north and west are completely blocked due to the steep slope of the hill side and views from the east are blocked by vegetation.

As a part of this analysis, lidar technology was used to create a viewshed analysis of the new tanks. The software considered a "view" of the tanks being the top half of the tanks. This analysis found that from Highway 88, the new water tanks will only be visible for a stretch of approximately 500 feet between Argonaut Lane and 10745 Highway 49-88, Jackson, CA 95642. However, due to the speed limit on the Highway and the vegetation and topography of the hillside to the south of the Project Area, views of the

new tanks will be fleeting and only noticeable for a couple seconds. Additionally, the new water tanks will be painted in a natural tan color that similarly matches the color of the vegetation around tank site and would further help reduce any perceived changes in the viewshed. Therefore, the Project will not result in a degradation of the visual character or quality of the public views of the site and surrounding area and the Project would not conflict with zoning and other regulations governing scenic quality. Any visual impacts as a result of the Project would be less than significant.

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 Proposed Project involves replacing an existing reservoir with two new water tanks. The new tanks will be painted tan to match the surrounding landscape and reduce their noticeability when viewed from surrounding areas. No new lighting is proposed as part of the Project, and the Project would not create a new source of substantial light or glare. There would be no impact and no mitigation is required.

4.1.3 Mitigation Measures

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

4.2 Agriculture and Forestry Resources

4.2.1 Environmental Setting

4.2.1.1 California Important Farmland Inventory System and Farmland Mapping and Monitoring Program

The California Department of Conservation (DOC) Farmland Mapping and Monitoring Program identifies lands that have agriculture value and maintains a statewide map of these lands called the Important Farmlands Inventory. Important Farmland maps classify land into one of eight categories, which are defined as follows (Amador County 2014):

- *Prime Farmland* – Land that has the best combination of features for the production of agricultural crops.
- *Farmland of Statewide Importance* – Land other than Prime Farmland that has a good combination of physical and chemical features for the production of agricultural crops.
- *Unique Farmland* – Land of lesser quality soils used for the production of the state's leading agricultural cash crops.

- *Farmland of Local Importance* – Land that is of importance to the local agricultural economy.
- *Grazing Land* – Land with existing vegetation that is suitable for grazing.
- *Urban and Built-up Lands* – Land occupied by structures with a density of at least one dwelling unit per 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public utility structures, and other developed purposes.
- *Land Committed to Nonagricultural Use* – Vacant areas; existing lands that have a permanent commitment to development but have an existing land use of agricultural or grazing lands.
- *Other Lands* – Land that does not meet the criteria of the remaining categories.

According to the DOC online Important Farmland Finder Map (DOC 2024a), the Proposed Project is classified as Other Land. Other land is described as vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

4.2.1.2 Williamson Act Contracts

The California Land Conservation Act of 1965, commonly known as the Williamson Act, enables local governments to enter into agreements with private landowners to restrict parcels for agricultural or related open space use. In return, landowners receive property tax assessments that are based on farming and open space uses instead of full market value.

The Proposed Project is not zoned for agriculture or forestry use and is not under Williamson Act contract (DOC 2024b).

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

As discussed above, the California Important Farmland Finder Map identifies the Project Area as Other Land. Therefore, the Proposed Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. There would be no impact and mitigation is not required.

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?	☐	☐	☒	☐

Less Than Significant Impact

The Proposed Project Area and surrounding parcels are not under Williamson Act contracts (DOC 2024b). The Proposed Project would not conflict with existing zoning for agricultural uses or a Williamson Act contract.

The Amador County General Plan Designation for the Project Area is Agricultural-General (Amador County 2024a, 2024b). The description for that designation is as follows:

> Valley and foothill areas that are best suited for grazing and varied agricultural uses. Agriculture is the primary use. Permitted density in this designation is based on site factors including the slope of the parcel, soil conditions, and water availability.

However, implementation of the Proposed Project would not change the existing use of the Project Area and would not result in any land use designation or zoning change. Therefore, any impact would be less than significant, and no mitigation is required.

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

As described previously in item a), the Proposed Project does not involve properties zoned for forest land, timberland or Timberland Production, and therefore would not conflict with existing zoning codes. No impact would occur and no mitigation measures are required.

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?	☐	☐	☐	☒

No Impact

See discussion under item c). No impact would occur and no mitigation is required.

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?	☐	☐	☐	☒

No Impact

See discussion under item a), the Proposed Project would not result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest. No impact would occur and no mitigation measures are required.

4.2.3 Mitigation Measures

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

4.3 Air Quality

4.3.1 Environmental Setting

This assessment was prepared using methods and assumptions recommended in the rules and regulations of the Amador Air District (AAD). Regional and local existing conditions are presented, along with pertinent pollutant emissions standards and regulations that apply to the Mountain Counties Air Basin (MCAB), which encompasses the Project Area. 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.

The Project Area is located on property owned by the City, just north of City limits in the community of Martell. The California Air Resources Board (CARB) divides the state into air basins that share similar meteorological and topographical features. The Project Area is located in the MCAB portion of Amador County. The MCAB is comprised of all of Amador, Calaveras, Mariposa, Nevada, Plumas, Sierra, and

Tuolumne counties and parts of El Dorado and Placer counties. The topography of Amador County portion of the MCAB is highly variable and includes rugged mountain peaks and valleys with extreme slopes and differences in altitude in the Sierras, as well as rolling foothills to the west. The MCAB lies along the northern Sierra Nevada Mountain range, close to or contiguous with the Nevada border, covering an area of approximately 11,000 square miles. Elevations in Amador County range from over 9,000 feet above sea level within the Sierra Nevada Mountain range to several hundred feet above sea level at Amador County's boundary with Sacramento County.

4.3.1 Ambient Air Quality

Both the 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), nitrogen oxides (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 USEPA and CARB designate air basins or portions of air basins and counties as being in "attainment" or "nonattainment" for each of the criteria pollutants. Areas that do not meet the standards are classified as nonattainment areas. The National Ambient Air Quality Standards (NAAQS) for O_3, Particulate Matter Less Than 10 Microns in Diameter (PM_{10}), and Particulate Matter Less Than 2.5 Microns in Diameter ($PM_{2.5}$) are based on statistical calculations over one- to three-year periods, depending on the pollutant. The California Ambient Air Quality Standards are not to be exceeded during a three-year period. The attainment status for Amador County portion of the MCAB is presented in Table 4.3-1.

Table 4.3-1. Attainment Status of Criteria Pollutants in the Amador County Portion of the MCAB

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

Notes: CO = carbon monoxide; MCAB = Mountain Counties Air Basin; NO_2 = nitrogen dioxide; O_3 = ozone; PM_{10} = Particulate Matter Less Than 10 Microns in Diameter; $PM_{2.5}$ = Particulate Matter Less Than 2.5 Microns in Diameter; SO_2 = sulfur dioxide

Source: California Air Resources Board 2022

The determination of whether an area meets the state and federal standards is based on air quality monitoring data. Some areas are unclassified, which means there is insufficient monitoring data for determining attainment or nonattainment. Unclassified areas are typically treated as being in attainment.

Because the attainment/nonattainment designation is pollutant-specific, an area may be classified as nonattainment for one pollutant and attainment for another. Similarly, because the state and federal standards differ, an area could be classified as attainment for the federal standards of a pollutant and as nonattainment for the state standards of the same pollutant. The portion of Amador County encompassing the Project Area is designated as a nonattainment area for the state and federal standards for O_3 (CARB 2024).

4.3.2 Regulatory Setting

4.3.2.1 Amador Air District

The air quality regulating authority in Amador County is the AAD. The AAD responsibilities include managing air resources of Amador County, assisting with compliance of regulations, achieving and maintaining ambient air quality standards set by the USEPA and CARB, and protecting public health and the environment from adverse air quality impacts (AAD 2024).

4.3.2.2 United States Environmental Protection Agency

General Conformity ensures that the actions taken by federal agencies do not interfere with a state's plans to attain and maintain national standards for air quality. Established under the federal Clean Air Act (CAA) (section 176(c)(4)), the General Conformity rule plays an important role in helping states improve air quality in those areas that do not meet the NAAQS. Under the General Conformity rule, federal agencies must work with state and local governments in a nonattainment or maintenance area to ensure that federal actions conform to the air quality plans established in the applicable state or tribal implementation plan. The overall purpose of the General Conformity rule is to ensure that:

- federal activities do not cause or contribute to new violations of the NAAQS;
- actions do not worsen existing violations of the NAAQS; and
- attainment of the NAAQS is not delayed.

The General Conformity process begins with an "applicability analysis," whereby it must be determined how and to what degree the Conformity Rules apply. According to the USEPA's General Conformity Guidance: Questions and Answers (USEPA 1994), before any approval is given for a Federal Action to go forward, the federal agency must apply the applicability requirements found at 40 Code of Federal Regulations (CFR) § 93.153 to the Federal Action and/or determine on a pollutant-by-pollutant basis, whether a determination of General Conformity is required. During the applicability analysis, the federal agency determines:

- whether the action will occur in a nonattainment or maintenance area;
- whether one or more of the specific exemptions apply to the action;
- whether the federal agency has included the action on its list of presumed-to-conform actions;
- whether the total direct and indirect emissions are below or above the *de minimis* levels; and/or

- where a facility has an emissions budget approved by the State or Tribe as part of the State Implementation Plan or Tribal Implementation Plan, the federal agency determines that the emissions from the proposed action are within the budget.

The General Conformity Rule allows for exemptions for emissions that are not reasonably foreseeable, will not result in an increase in emissions, are below de minimis limits, are the result of emergency actions, are included in stationary source air permits, are for routine maintenance and repair of existing structures, or are included in a transportation conformity determination undertaken by the Federal Highway Administration (FHWA) or Federal Transit Administration (FTA) (40 CFR 93.153(c)).

4.3.2.3 Thresholds of Significance

Amador Air District

The AAD has not formally adopted thresholds of significance for the evaluation of proposed projects that are subject to CEQA review. Therefore, air pollutant significance thresholds will be based on the AAD's Rule 500, which provides thresholds for major stationary sources of emissions (Project emissions are also evaluated against the significance thresholds established in neighboring El Dorado County for comparison purposes). AAD Rule 500 thresholds of significance are shown in Table 4.3-2.

Table 4.3-2. Amador Air District Rule 500 Thresholds of Significance

Pollutant	Significance Threshold (pounds per day)
ROG	274
NO_x	274
PM_{10}	384
$PM_{2.5}$	–
CO	548
SO_2	548

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; PM_{10} = Particulate Matter Less Than 10 Microns in Diameter; $PM_{2.5}$ = Particulate Matter Less Than 2.5 Microns in Diameter; ROG = Reactive Organic Gases; SO_2 = sulfur dioxide

Source: Amador Air District 2001

United States Environmental Protection Agency Conformity Determination

A conformity determination would be required if the annual emissions of non-attainment pollutants generated by the Project were to exceed the General Conformity *de minimis* thresholds. The *de minimis* limits represent an emissions level that the USEPA has determined will have only de minimis impacts to the air quality of an area and are thus exempted from the General Conformity Rule. If the overall predicted increase in emissions of a criteria pollutant due to a federal action in a nonattainment area exceeds the de minimis limits as shown in Table 4.3-3, a conformity determination is required.

Table 4.3-3. Federal General Conformity *De Minimis* Emissions Levels in Amador County			
Pollutant	**Attainment Status**	**Classification**	**USEPA General Conformity Threshold (tons per year)**
Ozone (VOCs or NO_x)	Nonattainment	Marginal	50
PM_{10}	Unclassified	N/A	100
$PM_{2.5}$	Unclassified	N/A	100
CO	Unclassified/Attainment	N/A	100
NO_2	Unclassified/Attainment	N/A	100
SO_2	Unclassified/Attainment	N/A	100
Lead	Unclassified/Attainment	N/A	25

Note: CO = carbon monoxide; N/A = Not Applicable; NO_2 = nitrogen dioxide; NO_x = nitrogen oxides; PM_{10} = Particulate Matter Less Than 10 Microns in Diameter; $PM_{2.5}$ = Particulate Matter Less Than 2.5 Microns in Diameter; SO_2 = sulfur dioxide; USEPA = U.S. Environmental Protection Agency; VOC = Volatile Organic Compound

Source: USEPA 2024a

4.3.3 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?	☐	☐	☒	☐

Less Than Significant Impact.

The AAD is the agency primarily responsible for compliance with federal and state standards within Amador County. The AAD helps to ensure that air quality conditions are maintained through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of the AAD includes adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the federal CAA and the California Clean Air Act. A project is inconsistent with regional air quality planning if it would result in population and/or employment growth that exceeds growth estimated in the applicable air quality plan.

The Proposed Project does not include development of new housing or employment centers and would not induce population or employment growth. The Proposed Project would replace the Martell water storage reservoir, which serves the northwestern portion of the system including approximately 4,786 residents. The reservoir would be replaced by two storage tanks that would meet current design standards

and be sized for current water demands and fire flows. Therefore, the Proposed Project would not conflict with or obstruct regional air quality planning. No mitigation is required.

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 With Mitigation Incorporated.

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulatively considerable.

The majority of the Proposed Project's air quality impacts are attributable to construction activities. For purposes of impact assessment, air quality impacts have been separated into construction impacts and operational impacts.

4.3.3.1 Construction Emissions

Emissions associated with Project construction would be temporary and short-term but have the potential to represent a significant air quality impact. Emissions commonly associated with construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. During construction, fugitive dust, the dominant source of PM_{10} and $PM_{2.5}$ emissions, is generated when wheels or blades disturb surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. Emissions of airborne PM are largely dependent on the amount of ground disturbance associated with site preparation activities. Off-road construction equipment is often diesel-powered and can be a substantial source of NO_x emissions, in addition to PM_{10} and $PM_{2.5}$ emissions. Worker commute trips and architectural coatings are dominant sources of Reactive Organic Gases (ROG) emissions.

The AAD has not formally adopted thresholds of significance for the evaluation of proposed projects that are subject to CEQA review. For purposes of this analysis, emission thresholds of the criteria air pollutants are based on the definition of a "major source," as identified in the AAD's Rule 500. The predicted maximum daily emissions of ROG, NO_x, CO, SO_2, PM_{10}, and $PM_{2.5}$, associated with Project construction are summarized in Table 4.3-4 and compared to the threshold promulgated by the AAD's Rule 500.

Table 4.3-4. Unmitigated Construction-Related Criteria Air Pollutant Emissions						
Project Phase	**Pollutant (maximum pounds per day)**					
	ROG	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Construction Year One	2.88	25.0	30.7	0.04	4.25	2.40
Construction Year Two	7.66	8.97	10.1	0.02	0.36	0.30
Significance Thresholds[*] (pounds per day)	*274*	*274*	*548*	*548*	*384*	–
Exceed Thresholds?	***No***	***No***	***No***	***No***	***No***	***No***

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; O_3 = ozone; PM_{10} = Particulate Matter Less Than 10 Microns in Diameter; $PM_{2.5}$ = Particulate Matter Less Than 2.5 Microns in Diameter; ROG = Reactive Organic Gases; SO_2 = sulfur dioxide
[*]Significance thresholds for ROG, NO_x, CO, SO_2, and PM_{10} are based on the definition of a *major source* derived from the Amador Air District's Rule 500. To ensure a more conservative analysis and to provide additional protection to nearby receptors from regional concentrations of O_3 precursors, NO_x and ROG thresholds are based on standards applied to federally classified serious nonattainment areas, though Amador County is only classified marginal nonattainment.
[†]Construction emissions taken from the season (summer or winter) with the highest output.

Source: California Emissions Estimator Model, Version 2022.1.1. Refer to Appendix A for Model Data Outputs.

As shown, construction would not exceed any significance thresholds derived from the AAD's Rule 500.

For the purposes of further comparison, the significance thresholds for criteria pollutants set forth by the El Dorado County Air Quality Management District (EDCAQMD) are also noted. The EDCAQMD's *Guide to Air Quality Assessment* (EDCAQMD 2002) includes significance thresholds to assist lead agencies in determining whether a project may have a significant air quality impact. While the significance thresholds promulgated in El Dorado County are not binding in Amador County, they are instructional for comparison purposes. The EDCAQMD's construction emission significance thresholds are 82 pounds per day of NO_x and ROG. As shown, construction of the Proposed Project would not generate emissions of NO_x or ROG at levels greater than 82 pounds daily.

Construction impacts would be less than significant. No mitigation is required.

4.3.3.2 Operational Emissions

As described above, emission thresholds of the other criteria air pollutants, for which the county is currently designated either attainment or unclassified, were based on the definition of a "major source," as identified in the AAD's Rule 500. The predicted maximum daily emissions of ROG, NO_x, CO, SO_2, PM_{10}, and $PM_{2.5}$, associated with Project operation are summarized in Table 4.3-5 and compared to the threshold promulgated by the AAD's Rule 500.

Table 4.3-5. Unmitigated Operation-Related Criteria Air Pollutant Emissions						
Project Phase	**Pollutant (maximum pounds per day)**					
	ROG	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Operation	0.25	0.22	1.23	<0.005	0.14	0.04
Significance Thresholds[*]	*274*	*274*	*548*	*548*	*384*	–
Exceed Thresholds?	***No***	***No***	***No***	***No***	***No***	***No***

Notes: CO = carbon monoxide; NO_x = nitrogen oxides; O_3 = ozone; PM_{10} = Particulate Matter Less Than 10 Microns in Diameter; $PM_{2.5}$ = Particulate Matter Less Than 2.5 Microns in Diameter; ROG = Reactive Organic Gases; SO_2 = sulfur oxide
[*]Significance thresholds for ROG, NO_x, CO, SO_2, and PM_{10} are based on the definition of a *major source* derived from the Amador Air District's Rule 500. To ensure a more conservative analysis and to provide additional protection to nearby receptors from regional concentrations of O_3 precursors, NO_x and ROG thresholds are based on standards applied to federally classified serious nonattainment areas, though Amador County is only classified marginal nonattainment.
[†]Operational emissions taken from the season (summer or winter) with the highest output.

Source: California Emissions Estimator Model, Version 2022.1.1. Refer to Appendix A for Model Data Outputs

As shown above, operation of the Proposed Project would not exceed any significance thresholds derived from the AAD's Rule 500. Additionally, the EDCAQMD's operational emission significance thresholds are 80 pounds per day of NO_x and ROG. As shown, the Proposed Project would not generate emissions of NO_x or ROG at levels greater than 80 pounds daily during operations.

Therefore, operational impacts would be less than significant. No mitigation is required.

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 age 65, children under age 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest sensitive receptors to the Project Area are single-family residences located approximately 0.30 miles to the south.

4.3.3.3 Construction-Generated Air Contaminants

Construction of the Project would result in temporary emissions of Diesel Particulate Matter (DPM), ROG, NO_x, CO, PM_{10}, and $PM_{2.5}$ from the exhaust of off-road; heavy-duty diesel equipment for Project construction; grading; and other miscellaneous activities. As previously identified, the MCAB, which encompasses the Project Area, is designated nonattainment for the federal and state O_3 standards (CARB 2022). Thus, existing levels of these criteria pollutants in the MCAB are at unhealthy levels during certain periods. However, shown in Table 4.3-4, construction-related emissions would not result in an exceedance of the significance thresholds and therefore no regional health effects from Project criteria pollutants would occur.

The health effects associated with O_3 are generally associated with reduced lung function. O_3 is not emitted directly into the air but is formed through complex chemical reactions between precursor emissions of ROG and NO_x in the presence of sunlight. The reactivity of O_3 causes health problems because it damages lung tissue, reduces lung function, and sensitizes the lungs to other irritants. Scientific evidence indicates that ambient levels of O_3 not only affect people with impaired respiratory systems, such as asthmatics, but healthy adults and children as well. Exposure to O_3 for several hours at relatively low concentrations has been found to significantly reduce lung function and induce respiratory inflammation in normal, healthy people during exercise. This decrease in lung function generally is accompanied by symptoms including chest pain, coughing, sneezing and pulmonary congestion.

Studies show associations between short-term O_3 exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to O_3 may increase the risk of respiratory-related deaths. The concentration of O_3 at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of O_3 and a 50 percent decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggests that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum O_3 concentration reaches 80 parts per billion. Because the Project would not involve construction activities that would result in O_3 precursor emissions (ROG or NO_x) in excess of the AAD Rule 500 significance thresholds, which are set to be protective of human health and account for cumulative emissions, 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 excess of the AAD Rule 500 thresholds, which are set to be protective of human health and account for cumulative emissions in Amador County. Thus, the Project's CO emissions would not contribute to the health effects associated with this pollutant.

PM (PM_{10} and $PM_{2.5}$) contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter 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} or $PM_{2.5}$ that would exceed 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 air pollutants or adverse health impacts associated with those pollutants. Impacts would be less than significant and no mitigation is required.

4.3.3.4 Operational Air Contaminants

Operation of the Proposed Project would not change existing activities in the Project Area. As shown in Table 4.3-5, operation-related emissions would not result in an exceedance of the significance thresholds and therefore no regional health effects from Project criteria pollutants would occur. Therefore, the Project would not be a source of TACs and there would be no impact as a result of the Project during Project operations. No mitigation is required.

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 can 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 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, then 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.

Land uses commonly considered to be potential sources of obnoxious odorous emissions include agriculture (farming and livestock), Waste Water Treatment Plants (WWTPs), food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Proposed Project does not contain any of the land uses identified as typically associated with emissions of objectionable odors. As such, no operational impacts would occur and no mitigation is required.

4.3.4 Mitigation Measures

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

4.4 Biological Resources

This section is based on the analysis and recommendations presented in the Biological Resources Assessment (BRA) prepared for the Proposed Project (ECORP Consulting, Inc. [ECORP] 2024b; Appendix B). The Project Area is referred to below as the Biological Study Area (BSA).

4.4.1 Environmental Setting

The BSA is located on level to moderately sloped terrain in a rural area. The BSA is situated at an elevational range of approximately 1,500 to 1,675 feet above mean sea level (MSL) in the northern Sierra Nevada foothills district of the Sierra Nevada floristic region of California. The average winter low temperature is 39.8 degrees Fahrenheit (°F) and the average summer high temperature is 90.4°F; the average annual precipitation is approximately 32.02 inches at the Sutter Hill CDF, CA station, which is approximately 0.9 mile from the BSA.

The BSA is currently occupied by the Martell storage reservoir, associated water system infrastructure, sheds, and an access road. Undeveloped portions of the BSA primarily include annual grassland, interior

live oak woodland, and developed/disturbed. The decommissioned storage detention pond is currently utilized as police training grounds. Vegetation communities and plant species composition are described in further detail in Section 4.4.1.2 Land uses surrounding the BSA include the Kennedy Mine and residential and commercial development.

Representative photographs of the BSA are provided in Appendix B of Appendix B.

4.4.1.1 Soils

More information regarding soils can be found in Section 4.7. However, according to the Web Soil Survey, four soil units have been mapped within the BSA:

- *AsD* – Auburn very rocky silt loam, 3 to 31 percent slopes
- *ExE* – Exchequer and Auburn very rocky loams, 31 to 51 percent slopes
- *SyD* – Supan very cobbly loam, moderately deep, 3 to 31 percent slopes
- *W* – Water

No soil units derived from serpentinite or gabbroic parent materials are known to occur within the BSA or its immediate vicinity (ECORP 2024b; Appendix B).

4.4.1.2 Vegetation Communities and Land Cover Types

The following sections describe vegetation communities and land cover types within the BSA as observed during the site reconnaissance. A full list of plants observed onsite can be found in Appendix C of Appendix B. The approximate extent of vegetation communities and land cover types are depicted on Figure 4.4-1.

Annual Grassland

The annual grassland community is found in the northern portion of the BSA. The annual grassland in the BSA is dominated by nonnative annual grasses and forbs including medusahead grass (*Elymus caput-medusae*), soft brome (*Bromus hordeaceus*), yellow star-thistle (*Centaurea solstitialis*), and broadleaf filaree (*Erodium botrys*). Scattered trees in the annual grassland include interior live oak (*Quercus wislizeni*), blue oak (*Quercus douglasii*), and tree-of-heaven (*Ailanthus altissima*).

The annual grasslands can be characterized as the *Avena* spp. - *Bromus* spp. Herbaceous Semi-Natural Alliance. Semi-natural alliances are strongly dominated by nonnative plants that have become naturalized in the State, do not have state rarity rankings, and are not considered sensitive natural communities.



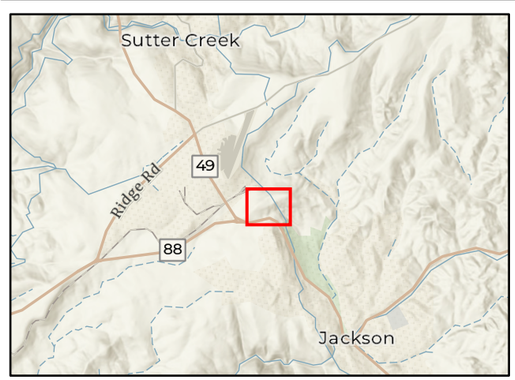
Map Contents

- Biological Study Area - 5.51 ac.

Vegetation Communities and Land Cover Types

- Annual Grassland
- Developed/Disturbed
- Interior Live Oak Woodland

Sources: Amador County, ESRI, Maxar (2022)



Location: N:\2023\2023-240 Jackson Water Tank Replacement\MAPS\Vegetation_and_LandCover\JWTR Vegetation and Land Cover.aprx - JWTR VegLC 20240313 (jwelsh - 3/13/2024)

Map Date: 3/13/2024

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 100 200

Figure 4.4-1. Vegetation Communities and Land Cover Types
2023-240 Jackson Water Tank Replacement

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Interior Live Oak Woodland

The interior live oak woodland community is found in the southern portion of the BSA. The interior live oak woodland in the BSA is dominated by interior live oak with blue oak, gray pine (*Pinus sabiniana*), and California buckeye (*Aesculus californica*) also present at lower cover in the canopy. Understory shrubs include Himalayan blackberry (*Rubus armeniacus*) and toyon (*Heteromeles arbutifolia*). Herbaceous vegetation in the understory consists of those species observed in the annual grassland onsite.

The interior live oak woodland community can be characterized as the *Quercus wislizeni - Quercus parvula* (tree) Forest & Woodland Alliance as classified by the Manual of California Vegetation. This alliance has a state rarity ranking of S4 and is not considered a sensitive natural community. The interior live oak woodland within the BSA does not resemble any known sensitive associations.

Developed/Disturbed

The developed or disturbed land cover type is found in the northern portion and southern tip of the BSA and includes the reservoir, associated system water infrastructure, and hardscape and paved areas. Native soils have either been previously removed and paved over or excavated to form the detention basin. This area is either devoid of vegetation or supports sparse ruderal (weedy) vegetation similar to the adjacent annual grassland.

Developed land cover is not a vegetation community and does not have a state or global rarity ranking.

4.4.1.3 Aquatic Resources

Review of the National Wetlands Inventory (NWI) showed one mapped aquatic feature within the BSA. The NWI mapping designation (NWI code) indicates the presence of a Freshwater Pond within the BSA. This NWI feature roughly corresponds to the reservoir previously noted. Note that the NWI inventory mapping is based on data prepared from the analysis of high-altitude imagery in conjunction with collateral data sources and field work. A margin of error is inherent in the use of imagery; thus, an Aquatic Resources Delineation (ARD) confirms presence/absence of aquatic resource boundaries present onsite.

ECORP conducted an ARD for the BSA. A total of 0.013 acre of aquatic resources were mapped within the BSA during the ARD. The aquatic features identified include a seasonal wetland and an ephemeral drainage (Figure 4.4-2). These features are further described in the following sections.

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Map Contents

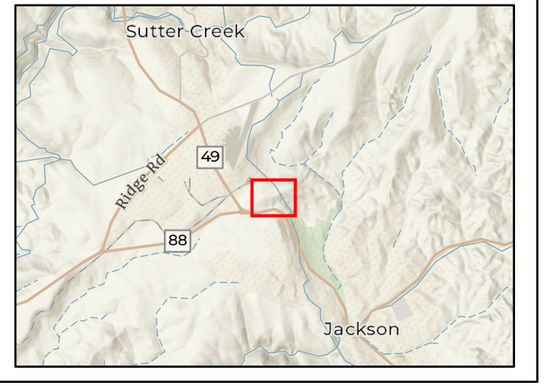
Biological Study Area - 5.51 ac.

Aquatic Resource Type

Ephemeral Drainage - 0.003 ac.

Seasonal Wetland - 0.002 ac.

Sources: Amador County, ESRI, Maxar (2022)



Location: N:\2023\2023-240 Jackson Water Tank Replacement\MAPS\Jurisdictional_Delineation\JWTR Aquatic Resources aprx - JWTR PWA 20240228 (jwelsh - 2/28/2024)

Map Date: 2/28/2024

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 100 200

Figure 4.4.-2 Preliminary Aquatic Resources Assessment
2023-240 Jackson Water Tank Replacement

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Seasonal Wetland

Seasonal wetlands are ephemerally wet due to accumulation of surface runoff and rainwater within low-lying areas. Inundation periods tend to be relatively short, and these features are commonly dominated by nonnative annual and sometimes perennial hydrophytic species. There is one seasonal wetland onsite located within the old water reservoir/pond for the previous treatment plant. Dominant plant species within the seasonal wetland included tall flatsedge (*Cyperus eragrostis*), prostrate knotweed (*Polygonum aviculare*), silvery hairgrass (*Aira caryophyllea*), creeping spikerush (*Eleocharis macrostachya*), and Goodding's black willow (*Salix gooddingii*).).

Ephemeral Drainage

Ephemeral drainages are linear features that exhibit a bed and bank and an Ordinary High Water Mark (OHWM). These features typically convey runoff for short periods of time, during and immediately following rain events, and are not influenced by groundwater sources at any time during the year. There is one ephemeral drainage in the BSA which originates from a culvert crossing under the access road and was largely unvegetated. The OHWM was delineated in the field based on a break in bank slope, change in vegetation cover, and change in topography.

4.4.1.4 Wildlife

The BSA provides habitat for a variety of wildlife species. Wildlife species observed onsite include red-tailed hawk (*Buteo jamaicensis*), common raven (*Corvus corax*), oak titmouse (*Baeolophus inornatus*), spotted towhee (*Pipilo maculatus*), and western gray squirrel (*Sciurus griseus*). Other species typically associated with the habitat types found in the BSA include western fence lizard (*Sceloporus occidentalis*), mule deer (*Odocoileus hemionus*), mourning dove (*Zenaida macroura*), acorn woodpecker (*Melanerpes formicivorus*), and white-breasted nuthatch (*Sitta carolinensis*), among others. A list of wildlife species observed in the BSA is provided in Appendix B.

4.4.1.5 Special-Status Species

Table 4.4-1 presents the full list of special-status plant and animal species identified through the literature review. For each species, the table provides the listing status, a brief description of habitat requirements and/or species ecology, a determination of the potential to occur within the BSA, and the rationale for that determination. The potential for each species to occur onsite was assessed using the following criteria:

- *Present* – Species was observed during the site visit or is known to occur within the BSA based on recent documented occurrences within the California Natural Diversity Database (CNDDB) or other literature.
- *Potential to Occur* – Suitable habitat (including soils and elevation requirements) occurs in the BSA, and the species is known or expected to occur in the Project vicinity based on available data sources or professional knowledge/experience.

- *Low Potential to Occur* – Marginal or limited amounts of habitat occur, or the species is not known to occur in the vicinity of the Project based on CNDDB records and other available information.
- *Presumed Absent* – No suitable habitat (including soils and elevation requirements) and the species is not known to occur within the vicinity of the Project based on CNDDB records and other documentation.

Following the table is a brief description and discussion of each special-status species that was determined to have potential to occur onsite.

Table 4.4-1. Special-Status Species Evaluation

Common Name (*Scientific Name*)	Status			Habitat Description/ Species Ecology	Potential to Occur Onsite
	ESA	CESA/ NPPA	Other		
Plants					
Henderson's bent grass *(Agrostis hendersonii)*	–	–	3.2	Vernal pools and mesic areas in valley and foothill grasslands. Elevation: 230'–1,000' Bloom Period: April–June	Presumed absent. The BSA is significantly outside the known elevational range for this species.
Ione manzanita *(Arctostaphylos myrtifolia)*	FT	–	1B.2	Chaparral and cismontane woodlands associated with very acidic, nutrient–poor, coarse soils typical of the Ione Formation. Elevation: 195'–1,905' Bloom Period: November–March	Presumed absent. The BSA does not include chaparral or Ione soils (Wagner et al. 1981).
Big-scale balsamroot *(Balsamorhiza macrolepis)*	–	–	1B.2	Chaparral, cismontane woodland, and valley and foothill grassland, sometimes on serpentine soils. Elevation: 150'–5,100' Bloom Period: March–June	Low potential to occur. The only known occurrence in the vicinity that is presumed extant is historic and has not been observed for over 130 years (CDFW 2024), however the annual grassland and interior live oak woodland within the BSA may provide suitable habitat for this species.
Valley brodiaea (*Brodiaea rosea* ssp. *vallicola*)	–	–	4.2	Occurs in old alluvial terraces and silt, sandy, or gravelly soils in vernal pools and swales within valley and foothill grassland. Elevation: 35'–1,100' Bloom Period: April–May	Low potential to occur. There are no vernal pools or swales within the BSA, however the annual grassland and seasonal wetland present may provide marginally suitable habitat for this species.

Table 4.4-1. Special-Status Species Evaluation					
Common Name (*Scientific Name*)	**Status**			**Habitat Description/ Species Ecology**	**Potential to Occur Onsite**
	ESA	**CESA/ NPPA**	**Other**		
Brassy bryum *(Bryum chryseum)*	–	–	4.3	Chaparral openings, cismontane woodland, and valley and foothill grassland. Elevation: 165′–1,970′ Bloom Period: N/A	Potential to occur. The interior live oak woodland and annual grassland within the BSA provide suitable habitat for this species.
Hoover's calycadenia *(Calycadenia hooveri)*	–	–	1B.3	Rocky soils in cismontane woodland and valley and foothill grassland. Elevation: 215′–985′ Bloom Period: July–September	Presumed absent. The BSA is significantly outside the known elevational range for this species.
Red Hills soaproot *(Chlorogalum grandiflorum)*	–	–	1B.2	Serpentine or gabbroic soils in chaparral, cismontane woodland, and lower montane coniferous forest, occasionally on non–ultramafic soils. Elevation: 805′–5,545′ Bloom Period: May–June	Potential to occur. The interior live oak woodland within the BSA provides suitable habitat for this species.
Sierra clarkia (*Clarkia virgata*)	–	–	4.3	Cismontane woodland and lower montane coniferous forest. Elevation: 1,310′–5,300′ Bloom Period: May–August	Potential to occur. The interior live oak woodland within the BSA provides suitable habitat for this species.
Streambank spring beauty *(Claytonia parviflora* ssp. *grandiflora)*	–	–	4.2	Occurs in rocky cismontane woodland. Elevation: 820′–3,935′ Bloom Period: February–May	Potential to occur. The rocky soils in the interior live oak woodland within the BSA provide suitable habitat for this species.
Bisbee Peak rush-rose *(Crocanthemum suffrutescens)*	–	–	3.2	Often gabbroic or Ione soil or in burned or disturbed areas within chaparral. Elevation: 245′–2,200′ Bloom Period: April–August	Presumed absent. The BSA does not contain chaparral or gabbroic or Ione soils (Horton 2017; Jennings et al. 1977; Wagner et al. 1981)
Ione buckwheat *(Eriogonum apricum* var. *apricum)*	FE	CE	1B.1	Openings in chaparral communities found on Ione soils. Elevation: 195′–475′ Bloom Period: July–October	Presumed absent. The BSA is significantly outside the known elevational range for this species and there is no chaparral or Ione soils present within the BSA (Wagner et al. 1981).

Table 4.4-1. Special-Status Species Evaluation					
Common Name (*Scientific Name*)	**Status**			**Habitat Description/ Species Ecology**	**Potential to Occur Onsite**
	ESA	**CESA/ NPPA**	**Other**		
Irish Hill buckwheat *(Eriogonum apricum* var. *prostratum)*	FE	CE	1B.1	Openings in chaparral communities found on Ione soils. Elevation: 295'–395' Bloom Period: June–July	Presumed absent. The BSA is significantly outside the known elevational range for this species and there is no chaparral or Ione soils present within the BSA (Wagner et al. 1981).
Tansy-flowered woolly sunflower (*Eriophyllum confertiflorum* var. *tanacetiflorum*)	–	–	4.3	Cismontane woodland and lower coniferous forest. Elevation: 1,000'–4,395' Bloom Period: May–July	Potential to occur. The interior live oak woodland within the BSA provides suitable habitat for this species.
Tuolumne button-celery (*Eryngium pinnatisectum*)	–	–	1B.2	Vernal pools and other mesic conditions in cismontane woodland and lower montane coniferous forests. Elevation: 230'–3,000' Bloom Period: May–August	Low potential to occur. The aquatic features within the BSA provide marginally suitable habitat for this species.
Small-flowered monkeyflower (*Erythranthe inconspicua*)	–	–	4.3	Mesic areas within chaparral, cismontane woodland, and lower montane coniferous forest. Elevation: 900'–2,495' Bloom Period: May–June	Potential to occur. The mesic areas of the interior live oak woodland within the BSA provide suitable habitat for this species.
Stanislaus monkeyflower (*Erythranthe marmorata*)	–	–	1B.1	Cismontane woodland and lower montane coniferous forest. Elevation: 330'–2,955' Bloom Period: March–May	Potential to occur. The interior live oak woodland within the BSA provides suitable habitat for this species.
Serpentine bluecup (*Githopsis pulchella* ssp. *serpentinicola*)	–	–	4.3	Serpentine or Ione cismontane woodland. Elevation: 1,050'–2,000' Bloom Period: May–June	Presumed absent. The BSA does not include serpentine or Ione soils (Horton 2017; Jennings et al. 1977; Wagner et al. 1981).
Parry's horkelia (*Horkelia parryi*)	–	–	1B.2	Ione and other soil formations in chaparral and cismontane woodlands. Elevation: 260'–3,510' Bloom Period: April–September	Potential to occur. The interior live oak woodland within the BSA provides suitable habitat for this species.

Table 4.4-1. Special-Status Species Evaluation					
Common Name (*Scientific Name*)	**Status**			**Habitat Description/ Species Ecology**	**Potential to Occur Onsite**
	ESA	**CESA/ NPPA**	**Other**		
Foothill jepsonia (*Jepsonia heterandra*)	–	–	4.3	Rocky, metamorphic soils in cismontane woodland and lower montane coniferous forest. Elevation: 165'–1,640' Bloom Period: August–December	Potential to occur. The interior live oak woodland within the BSA provides suitable habitat for this species.
Legenere (*Legenere limosa*)	–	–	1B.1	Various seasonally inundated areas including wetlands, wetland swales, marshes, vernal pools, artificial ponds, and floodplains of intermittent drainages (USFWS 2005). Elevation: 5'–2,885' Bloom Period: April–June	Low potential to occur. The aquatic features within the BSA provide marginally suitable habitat for this species.
Humboldt lily (*Lilium humboldtii* ssp. *humboldtii*)	–	–	4.2	Occurs in openings within chaparral, cismontane woodland, and lower montane coniferous forest. Elevation: 295'–4,200' Bloom Period: May–July	Potential to occur. The interior live oak woodland within the BSA provides suitable habitat for this species.
Pincushion navarretia (*Navarretia myersii* ssp. *myersii*)	–	–	1B.1	Often acidic soils in vernal pools. Elevation: 65'–1,085' Bloom Period: April–May	Presumed absent. There is no suitable habitat within the BSA.
Patterson's navarretia (*Navarretia paradoxiclara*)	–	–	1B.3	Often drainages in vernally mesic areas, openings, or serpentine substrates within meadows and seeps. Elevation: 490'–1,410' Bloom Period: May–June	Presumed absent. This species is serpentine endemic (Safford and Miller 2020) and there are no serpentine soils within the BSA (Horton 2017; Jennings et al. 1977).
Bacigalupi's yampah (*Perideridia bacigalupii*)	–	–	4.2	Serpentine soils of lower montane coniferous forest and chaparral. Elevation: 1,475'–3,395' Bloom Period: June–August	Presumed absent. There are no serpentine soils within the BSA (Horton 2017; Jennings et al. 1977).
Prairie wedge grass (*Sphenopholis obtusata*)	–	–	2B.2	Meadows and seeps, and mesic areas in cismontane woodland. Elevation: 985'–6,560' Bloom Period: April–July	Potential to occur. The interior live oak woodland within the BSA provides suitable habitat for this species.

Table 4.4-1. Special-Status Species Evaluation					
Common Name (*Scientific Name*)	**Status**			**Habitat Description/ Species Ecology**	**Potential to Occur Onsite**
	ESA	**CESA/ NPPA**	**Other**		
Invertebrates					
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT	–	–	Vernal pools/wetlands. Survey Period: November–April when surface water is present.	Presumed absent. The BSA does not provide suitable habitat.
Monarch butterfly (overwintering population) (*Danaus plexippus*)	FC	–	–	Overwinters along coastal California in wind-protected groves of eucalyptus, Monterey pine and cypress with nearby nectar and water sources; disperses in spring throughout California. Adults breed and lay eggs during the spring and summer, feeding on a variety of nectar sources; eggs are laid exclusively on milkweed plants.	Presumed absent. The BSA does not support overwintering habitat.
Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)	FT	–	–	Found exclusively on its host plant, the elderberry shrub, in riparian and oak woodland/ oak savannah habitats of California's Central Valley from Shasta to Madera counties.	Presumed absent. There is no suitable habitat within the BSA and the BSA is outside the known geographic range for this species (USFWS 2024).
Crotch's bumble bee *(Bombus crotchii)*	–	CC	–	Primarily nests underground in open grassland and scrub habitats from the California coast east to the Sierra Cascade and south to Mexico. Survey Period: March-September	Low potential to occur. Burrows within the BSA may provide suitable nesting habitat.
Fish					
Steelhead (CA Central Valley DPS) (*Oncorhynchus mykiss irideus*)	FT	–	–	Fast-flowing, well-oxygenated rivers and streams below dams in the Sacramento and San Joaquin River systems. Survey Period: N/A	Presumed absent. There is no suitable habitat within the BSA.
Amphibians					
California tiger salamander (Central California DPS) (*Ambystoma californiense*)	FT	CT	CDFW WL	Breeds in vernal pools and seasonal wetlands in grassland or oak woodland habitats; adults are terrestrial using underground refuges such as ground squirrel or gopher burrows. Central Valley and Inner Coast Range. Survey Period: Winter-Spring	Presumed absent. There is no suitable habitat within the BSA.

Table 4.4-1. Special-Status Species Evaluation					
Common Name (*Scientific Name*)	**Status**			**Habitat Description/ Species Ecology**	**Potential to Occur Onsite**
	ESA	**CESA/ NPPA**	**Other**		
Western spadefoot (Northern DPS) (*Spea hammondii*)	FPT	–	SSC	California endemic species of vernal pools, swales, and seasonal wetlands in grassland, scrub and woodland habitats throughout the Central Valley and South Coast Ranges. Prefers open areas with sandy or gravelly soils. Survey Period: Winter-Spring	Presumed absent. There is no suitable habitat within the BSA.
California red-legged frog (*Rana draytonii*)	FT	–	SSC	Lowlands and foothills of the northern and southern Coast Ranges and Sierra Nevada. Found in deep standing or flowing water with dense shrubby or emergent riparian vegetation; requires 11-20 weeks of permanent water for larval development. Adults require aestivation habitat to endure summer dry down. Survey Period: January – September	Presumed absent. There is no suitable habitat within the BSA.
Foothill yellow-legged frog East/Southern Sierra Clade (*Rana boylii*)	FE	CE	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. Sierra Nevada from northern limits of South Fork American River watershed to Tehachapi Mountains. Survey Period: May–October	Presumed absent. There is no suitable habitat within the BSA.

Table 4.4-1. Special-Status Species Evaluation					
Common Name (*Scientific Name*)	**Status**			**Habitat Description/ Species Ecology**	**Potential to Occur Onsite**
	ESA	**CESA/ NPPA**	**Other**		
Reptiles					
Northwestern pond turtle (*Actinemys marmorata*)	FPT	–	SSC	Requires basking sites and upland habitats up to 0.5 km from water for egg laying. Uses ponds, streams, detention basins, and irrigation ditches. Survey Period: April-September	Presumed absent. There is no suitable habitat within the BSA.
Birds					
California gull (nesting colony) *(Larus californicus)*	–	–	BCC, CDFW WL	Nesting occurs in the Great Basin, Great Plains, Mono Lake, and south San Francisco Bay. Breeding colonies located on islands on natural lakes, rivers, or reservoirs. Winters along Pacific Coast from southern British Columbia south to Baja California and Mexico. In California, winters along coast and inland (Central Valley, Salton Sea). Nesting: April-August	Presumed absent. No suitable nesting habitat within the BSA.
Golden eagle (*Aquila chrysaetos*)	–	–	CFP, CDFW WL	Nesting habitat includes mountainous canyon land, rimrock terrain of open desert and grasslands, riparian, oak woodland/ savannah, and chaparral. Nesting occurs on cliff ledges, river banks, trees, and human-made structures (e.g., windmills, platforms, and transmission towers). Breeding occurs throughout California, except the immediate coast, Central Valley floor, Salton Sea region, and the Colorado River region, where they can be found during Winter. Nesting: February-August Wintering in Central Valley: October-February	Presumed absent. No suitable nesting habitat within the BSA.

Table 4.4-1. Special-Status Species Evaluation					
Common Name (*Scientific Name*)	**Status**			**Habitat Description/ Species Ecology**	**Potential to Occur Onsite**
	ESA	**CESA/ NPPA**	**Other**		
Bald eagle (*Haliaeetus leucocephalus*)	De-listed	CE	CFP	Typically nests in forested areas near large bodies of water in the northern half of California; nest in trees and rarely on cliffs; wintering habitat includes forest and woodland communities near water bodies (e.g., rivers, lakes), wetlands, flooded agricultural fields, open grasslands. Nesting: February-September Wintering: October-March	Presumed absent. No suitable nesting habitat within the BSA.
Nuttall's woodpecker (*Dryobates nuttallii*)	–	–	BCC	Resident from northern California south to Baja California. Nests in tree cavities in oak woodlands and riparian woodlands. Nesting: April-July	Potential to occur. Trees within the BSA provide suitable nesting habitat for this species.
Prairie falcon (*Falco mexicanus*)	–	–	CDFW WL	Found in open habitat at all elevations up to 3,350 meters (Steenhof 2020). Nests on cliffs and bluffs in arid plains and steppes; In California, nesting throughout state except northwest corner, along immediate coast, and the Central Valley floor. Winters throughout California, in open habitats, such as grasslands in Central Valley. Nesting: March-July Wintering in Central Valley: September-February	Presumed absent. There is no suitable nesting habitat in the BSA.
Yellow-billed magpie (*Pica nuttallii*)	–	–	BCC	Endemic to California; found in the Central Valley and coast range south of San Francisco Bay and north of Los Angeles County; nesting habitat includes oak savannah with large expanses of open ground; also found in urban parklike settings. Nesting: April-June	Low potential to occur. The BSA is at the eastern limits of the breeding distribution of this species.

Table 4.4-1. Special-Status Species Evaluation					
Common Name (*Scientific Name*)	**Status**			**Habitat Description/ Species Ecology**	**Potential to Occur Onsite**
	ESA	**CESA/ NPPA**	**Other**		
Oak titmouse (*Baeolophus inornatus*)	–	–	BCC	Nests in tree cavities within dry oak or oak-pine woodland and riparian; where oaks are absent, they nest in juniper woodland, open forests (gray, Jeffrey, Coulter, pinyon pines and Joshua tree). Nesting: March-July	Present. Oak titmice were observed during the reconnaissance visit within the BSA. There is suitable nesting habitat in the BSA.
Wrentit (*Chamaea fasciata*)	–	–	BCC	Coastal sage scrub, northern coastal scrub, chaparral, dense understory of riparian woodlands, riparian scrub, coyote brush and blackberry thickets, and dense thickets in suburban parks and gardens. Nesting: March-August	Presumed absent. No suitable habitat is present within the BSA.
Lawrence's goldfinch (*Spinus lawrencei*)	–	–	BCC	Breeds in Sierra Nevada and inner Coast Range foothills surrounding the Central Valley and the southern Coast Range to Santa Barbara County east through southern California to the Mojave Desert and Colorado Desert into the Peninsular Range. Nests in arid and open woodlands with chaparral or other brushy areas, tall annual weed fields, and a water source (e.g., small stream, pond, lake), and to a lesser extent riparian woodland, coastal scrub, evergreen forests, pinyon-juniper woodland, planted conifers, and ranches or rural residences near weedy fields and water. Nesting: March-September	Potential to occur. Shrubs onsite represent potential nesting habitat.
Belding's savannah sparrow (*Passerculus sandwichensis beldingi*)	–	CE	BCC	Resident coastally from Point Conception south into Baja California; coastal salt marsh. Year-round resident; nests March-August	Presumed absent. No suitable habitat is present within the BSA.
Bullock's oriole (*Icterus bullockii*)	–	–	BCC	Breeding habitat includes riparian and oak woodlands. Nesting: March-July	Potential to occur. Trees onsite represent potential nesting habitat.

Table 4.4-1. Special-Status Species Evaluation					
Common Name (*Scientific Name*)	**Status**			**Habitat Description/ Species Ecology**	**Potential to Occur Onsite**
	ESA	**CESA/ NPPA**	**Other**		
Tricolored blackbird (*Agelaius tricolor*)	–	CT	BCC, SSC	Breeds locally west of Cascade-Sierra Nevada and southeastern deserts from Humboldt and Shasta counties south to San Bernardino, Riverside and San Diego counties. Central California, Sierra Nevada foothills and Central Valley, Siskiyou, Modoc and Lassen counties. Nests colonially in freshwater marsh, blackberry bramble, milk thistle, triticale fields, weedy (mustard, mallow) fields, giant cane, safflower, stinging nettles, tamarisk, riparian scrublands and forests, fiddleneck and fava bean fields (Beedy et al. 2020). Nesting: March-August	Low potential to occur. The blackberry brambles onsite represent marginally suitable nesting habitat within the BSA.
Saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*)	–	–	BCC, SSC	Breeds in salt marshes of San Francisco Bay; winters San Francisco south along coast to San Diego County. Nesting: March-July	Presumed absent. No suitable habitat is present within the BSA.
Mammals					
Townsend's big-eared bat *(Corynorhinus townsendii)*	–	–	SSC	Occurs throughout the west and is distributed from the southern portion of British Columbia south along the Pacific coast to central Mexico and east into the Great Plains, with isolated populations occurring in the central and eastern United States. It has been reported in a wide variety of habitat types ranging from sea level to 3,300 meters. Habitat associations include coniferous forests, mixed meso-phytic forests, deserts, native prairies, riparian communities, active agricultural areas, and coastal habitat types. Roosting can occur within caves, mines, buildings, rock crevices, trees. Survey Period: April-September	Potential to occur. The trees and structures may provide suitable roosting habitat within the BSA.

Table 4.4-1. Special-Status Species Evaluation					
Common Name (*Scientific Name*)	**Status**			**Habitat Description/ Species Ecology**	**Potential to Occur Onsite**
	ESA	**CESA/ NPPA**	**Other**		
Pallid bat *(Antrozous pallidus)*	–	–	SSC	Crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of redwoods, cavities of oaks, exfoliating ponderosa pine and oak bark, deciduous trees in riparian areas, and fruit trees in orchards). Also roosts in various human structures such as bridges, barns, porches, bat boxes, and human occupied as well as vacant buildings (WBWG 2024). Survey Period: April-September	Potential to occur. The trees and structures may provide suitable roosting habitat within the BSA.

Note: BSA = Biological Study Area; CDFW = California Department of Fish and Wildlife; CESA = California Endangered Species Act; CRPR = California Rare Plant Rank; DPS = Distinct Population Segment; ESA = Endangered Species Act; km = kilometer; N/A = Not Applicable; NPPA = Native Plant Protection Act; USFWS = U.S. Fish and Wildlife Service; WBWG = Western Bat Working Group

Status Codes:

1B	CRPR/Rare or Endangered in California and elsewhere
2B	CRPR/Plants rare, threatened, or endangered in California but more common elsewhere
3	CRPR/Plants About Which More Information is Needed – A Review List
4	CRPR/Plants of Limited Distribution – A Watch List
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)
0.3	Threat Rank/Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)
BCC	USFWS Bird of Conservation Concern (USFWS 2021)
CC	Candidate for CESA listing as Endangered or Threatened
CDFW WL	CDFW Watch List
CE	CESA- or NPPA-listed, Endangered
CFP	California Fish and Game Code Fully Protected Species (§ 3511-birds, § 4700-mammals, §5050-reptiles/amphibians)
CT	CESA- or NPPA-listed, Threatened
Delisted	Formally Delisted
FC	Candidate for ESA listing as Threatened or Endangered
FE	ESA-listed, Endangered
FPT	Formally Proposed for ESA listing as Threatened
FT	ESA-listed, Threatened
SSC	CDFW Species of Special Concern

Source: ECORP Consulting, Inc. 2024b; Appendix B

Plants

Based on the literature review, 25 special-status plant species were identified as having the potential to occur in the vicinity of the BSA (Table 4.4-1). However, upon further analysis and after the site visit, 10 of those species are presumed to be absent from the BSA due to the lack of suitable habitat or because the BSA is outside the known geographical or elevational range for the species. No further discussion of those species is provided in this assessment. A brief description of the remaining 15 species that have potential to occur within the BSA is presented below.

Big-Scale Balsamroot

Big-scale balsamroot (*Balsamorhiza macrolepis*) is not listed pursuant to either the federal or California Endangered Species Acts (ESAs) but is designated as a California Rare Plant Rank (CRPR) 1B.2 species. This species is an herbaceous perennial that occurs in chaparral, cismontane woodlands, valley and foothill grassland, and sometimes on serpentinite soils. Big-scale balsamroot blooms from March through June and is known to occur at elevations ranging from 150 to 5,100 feet above MSL. Big-scale balsamroot is endemic to California; the current range of this species includes Alameda, Amador, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Shasta, Solano, Sonoma, Tehama, and Tuolumne counties.

There is one documented CNDDB occurrence of big-scale balsamroot within 5 miles of the BSA. This account is historic and has not been observed for over 130 years. However, the annual grassland and interior live oak woodland within the BSA represent suitable habitat for this species. Big-scale balsamroot has low potential to occur onsite.

Valley Brodiaea

Valley brodiaea (*Brodiaea rosea* ssp. *vallicola*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 4.2 species. This species is a bulbiferous perennial herb that occurs in old alluvial terraces and silty, sandy, or gravelly soils in vernal pools, swales, and valley and foothill grassland. Valley brodiaea blooms from April through May (sometimes June) and is known to occur at elevations ranging from 35 to 1,100 feet above MSL. Valley brodiaea is endemic to California; the current range of this species includes Butte, Calaveras, Nevada, Placer, Sacramento, San Joaquin, Sutter, and Yuba counties.

There are no documented CNDDB occurrences of valley brodiaea within 5 miles of the BSA. The annual grassland and seasonal wetland within the BSA represent suitable habitat for this species. Valley brodiaea has low potential to occur onsite.

Brassy Bryum

Brassy bryum (*Bryum chryseum*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 4.3 species. This species is a moss that occurs in chaparral openings, cismontane woodland, and valley and foothill grassland. Brassy bryum is known to occur at elevations ranging from 165 to 1,970 feet above MSL. The current range in California for brassy bryum includes Amador, Butte, Fresno, Madera, Mendocino, and San Bernardino counties.

There are no documented CNDDB occurrences of brassy bryum within 5 miles of the BSA. The interior live oak woodland and annual grassland within the BSA represents suitable habitat for this species. Brassy bryum has potential to occur onsite.

Red Hills Soaproot

Red Hills soaproot (*Chlorogalum grandiflorum*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 1B.2 plant. This species is a bulbiferous perennial herb that typically occurs on serpentinite, gabbroic, and other soils in chaparral, cismontane woodland, and lower montane coniferous forest communities. Red Hills soaproot blooms from May through June and is known to occur at elevations ranging from 805 to 5,545 feet above MSL. Red Hill soaproot is endemic to California; the current range of this species includes Amador, Calaveras, El Dorado, Placer, and Tuolumne counties.

There are no documented CNDDB occurrences of Red Hills soaproot within 5 miles of the BSA. The interior live oak woodland within the BSA represents suitable habitat for this species. Red Hills soaproot has potential to occur onsite.

Sierra Clarkia

Sierra clarkia (*Clarkia virgata*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 4.3 plant. This species is an herbaceous annual that occurs in cismontane woodlands and lower montane coniferous forest. Sierra clarkia blooms from May through August and is known to occur at elevations ranging from 1,310 to 5,510 feet above MSL. Sierra clarkia is endemic to California; the current range of this species includes Amador, Calaveras, El Dorado, Mariposa, Placer, Plumas, Tuolumne, and Yuba counties.

There are no documented CNDDB occurrences of Sierra clarkia within 5 miles of the BSA. The interior live oak woodland within the BSA represents suitable habitat for this species. Sierra clarkia has potential to occur onsite.

Streambank Spring Beauty

Streambank spring beauty (*Claytonia parviflora* ssp. *grandiflora*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 4.2 species. This species is an herbaceous annual that occurs in rocky soils within cismontane woodland. Streambank spring beauty blooms from February through May and is known to occur at elevations ranging from 820 to 3,935 feet above MSL. Streambank spring beauty is endemic to California; the current range of this species includes Amador, Butte, Calaveras, El Dorado, Fresno, Kern, Madera, Placer, Tulare, and Tuolumne counties.

There are no documented CNDDB occurrences of streambank spring beauty within 5 miles of the BSA. The rocky soils within the interior live oak woodland within the BSA represent suitable habitat for this species. Streambank spring beauty has potential to occur onsite.

Tansy-Flowered Woolly Sunflower

Tansy-flowered woolly sunflower (*Eriophyllum confertiflorum* var. *tanacetiflorum*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 4.3 species. This species is a perennial

shrub that occurs in cismontane woodland and lower montane coniferous forest. Tansy-flowered woolly sunflower blooms from May through July and is known to occur at elevations ranging from 1,000 to 4,395 feet above MSL. Tansy-flowered woolly sunflower is endemic to California; the current range of this species includes Calaveras, Inyo, Kern, Mariposa, and Tuolumne counties.

There are no documented CNDDB occurrences of tansy-flowered woolly sunflower within 5 miles of the BSA. The interior live oak woodland within the BSA represents suitable habitat for this species. Tansy-flowered woolly sunflower has potential to occur onsite.

Small-Flowered Monkeyflower

Small-flowered monkeyflower (*Erythranthe inconspicua*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 4.3 species. This species is an herbaceous annual that occurs in mesic sites such as chaparral, cismontane woodland, and lower montane coniferous forest. Small-flowered monkeyflower blooms from May through June and is known to occur at elevations ranging from 900 to 2,495 feet above MSL. Small-flowered monkeyflower is endemic to California; its current range includes Amador, Butte, Calaveras, Fresno, Kern, Mariposa, Tulare, and Tuolumne counties.

There are no documented CNDDB occurrences of Small-flowered monkeyflower within 5 miles of the BSA. The mesic areas of the interior live oak woodland within the BSA represent suitable habitat for this species. Small-flowered monkeyflower has potential to occur onsite.

Stanislaus Monkeyflower

Stanislaus monkeyflower (*Erythranthe marmorata*) 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 annual that occurs in cismontane woodland and lower montane coniferous forests. Stanislaus monkeyflower blooms from March through May and is known to occur at elevations ranging from 330 to 2,955 feet above MSL. Stanislaus monkeyflower is endemic to California; its current range includes Amador, Calaveras, Fresno, Stanislaus, and Tuolumne counties.

There are no documented CNDDB occurrences of Stanislaus monkeyflower within 5 miles of the BSA. The interior live oak woodland within the BSA represents suitable habitat for this species. Stanislaus monkeyflower has potential to occur onsite.

Parry's Horkelia

Parry's horkelia (*Horkelia parryi*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 1B.2 species. This species is a small, herbaceous perennial that occurs in chaparral and cismontane woodlands and is associated with very acidic, nutrient-poor, coarse soils typical of the Ione Formation. Parry's horkelia blooms from April through September and is known to occur at elevations ranging from 260 to 3,510 feet above MSL. Parry's horkelia is endemic to California; the current range for this species includes Amador, Calaveras, El Dorado, Mariposa, and Tuolumne counties.

There are no documented CNDDB occurrences of Parry's horkelia within 5 miles of the BSA. The interior live oak woodland within the BSA represents suitable habitat for this species. Parry's horkelia has potential to occur onsite.

Foothill Jepsonia

Foothill jepsonia (*Jepsonia heterandra*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 4.3 species. This species is an herbaceous perennial that occurs in rocky, metamorphic soils in cismontane woodland and lower montane coniferous forests. Foothills jepsonia blooms from August through December and is known to occur at elevations ranging from 165 to 1,640 feet above MSL. Foothill jepsonia is endemic to California; the current range of this species includes Amador, Calaveras, El Dorado, Mariposa, Stanislaus, and Tuolumne counties.

There are no documented CNDDB occurrences of foothill jepsonia within 5 miles of the BSA. The interior live oak woodland within the BSA represents suitable habitat for this species. Foothill jepsonia has potential to occur onsite.

Legenere

Legenere (*Legenere limosa*) 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 annual that occurs in a variety of seasonally inundated environments including wetlands, wetland swales, marshes, vernal pools, artificial ponds, and floodplains of intermittent drainages. Legenere blooms from April through June and is known to occur at elevations ranging from 5 feet to 2,885 feet above MSL. Legenere is endemic to California; the current range of this species includes Alameda, Lake, Monterey, Napa, Placer, Sacramento, Santa Clara, San Joaquin, Shasta, San Mateo, Solano, Sonoma, Stanislaus, Tehama, and Yuba counties. It is believed to be extirpated from Stanislaus County.

There are no documented CNDDB occurrences of legenere within 5 miles of the BSA. The aquatic resources within the BSA represent marginally suitable habitat for this species. Legenere has low potential to occur onsite.

Humboldt Lily

Humboldt lily (*Lilium humboldtii* ssp. *humboldtii*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 4.2 species. This species is a perennial bulbiferous herb that occurs in openings within chaparral, cismontane woodland, and lower montane coniferous forest. Humboldt lily blooms from May through July and is known to occur at elevations ranging from 295 to 4,200 feet above MSL. Humboldt lily is endemic to California; the current range of this species includes Amador, Butte, Calaveras, El Dorado, Los Angeles, Nevada, Placer, Plumas, San Diego, Santa Barbara, Sierra, Tehama, and Yuba counties.

There are no documented CNDDB occurrences of Humboldt lily within 5 miles of the BSA. The interior live oak woodland within the BSA represents suitable habitat for this species. Humboldt lily has potential to occur onsite.

Prairie Wedge Grass

Prairie wedge grass (*Sphenopholis obtusata*) 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 cismontane woodland, meadows, and seeps. Prairie wedge grass blooms from April through July

and is known to occur at elevations ranging from 985 to 6,560 feet above MSL. The current range of this species in California includes Amador, Fresno, Inyo, Mono, Riverside, San Bernardino, San Diego, Stanislaus, and Tulare counties. Distribution or identity is uncertain in San Diego County.

There are two documented CNDDB occurrences of prairie wedge grass within 5 miles of the BSA. The interior live oak woodland within the BSA represents suitable habitat for this species. Prairie wedge grass has potential to occur onsite.

Invertebrates

Based on the literature review, four special-status invertebrate species were identified as having the potential to occur in the vicinity of the BSA (Table 4.4-1). However, upon further analysis and after the site visit, three species are presumed to be absent from the BSA due to lack of suitable habitat or because it is outside of the geographic range for the species. No further discussion of these species is provided in this assessment. A brief description of the remaining species that have potential to occur within the BSA is presented below.

Crotch's Bumble Bee

Crotch's bumble bee (*Bombus crotchii*) is a candidate for listing as endangered under the California ESA. The historic range of Crotch's bumble bee extends from coastal areas east to the edges of the desert in central California south to Baja California del Norte, Mexico, excluding mountainous areas. The species was historically common throughout the southern two-thirds of its range but is now largely absent from much of that area and is nearly extirpated from the center of its historic range, the Central Valley.

Crotch's bumble bee inhabits open grassland and scrub habitats. The species visits a wide variety of flowering plants, although its very short tongue makes it best suited to forage at open flowers with short corollas (Xerces Society for Invertebrate Conservation 2018). Plant families most commonly associated with Crotch's bumble bee include Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae. The species primarily nests underground (Williams et al. 2014). Little is known about overwintering sites for the species, but bumble bees generally overwinter in soft, disturbed soils or under leaf litter or other debris. The flight period for Crotch's bumble bee queens in California is from late February to late October, peaking in early April with a second pulse in July. The flight period for workers and males in California is from late March through September with peak abundance in early July. (ECORP 2024b; Appendix B)

There are no documented CNDDB occurrences of Crotch's bumble bee within 5 miles of the BSA (ECORP 2024b; Appendix B). Abandoned rodent burrows may provide suitable nesting habitat and the BSA may also support overwintering and marginal foraging habitat for this species. Crotch's bumble bee has low potential to occur onsite.

Fish

Based on the literature review, one special-status fish species was identified as having the potential to occur in the vicinity of the BSA (Table 4.4-1). However, upon further analysis and after the site visit, this

species was presumed to be absent from the BSA due to the lack of suitable habitat. No further discussion of special-status fish is provided in this assessment.

Amphibians

Based on the literature review, four special-status amphibian species were identified as having the potential to occur in the vicinity of the BSA (Table 4.4-1). However, upon further analysis and after the site visit, these species were presumed to be absent from the BSA due to lack of suitable habitat. No further discussion of special-status amphibians is provided in this assessment.

Reptiles

Based on the literature review, one special-status reptile species was identified as having the potential to occur in the vicinity of the BSA (Table 4.4-1). However, upon further analysis and after the site visit, this species was presumed to be absent from the BSA due to the lack of suitable habitat. No further discussion of special-status reptiles is provided in this assessment.

Birds

Based on the literature review, 13 special-status bird species were identified as having potential to occur in the vicinity of the BSA (Table 4.4-1). Upon further analysis and after the site visit, seven of those species are considered to be absent from the BSA due to the lack of suitable habitat. No further discussion of those species is provided in this assessment. A brief description of the remaining six species that have potential to occur within the BSA is presented below.

Nuttall's Woodpecker

The Nuttall's woodpecker (*Dryobates nuttallii*) is not listed and protected under either state or federal ESAs but is considered a U.S. Fish and Wildlife Service (USFWS) Bird of Conservation Concern (BCC). They are resident from Siskiyou County south to Baja California. Nuttall's woodpeckers nest in tree cavities primarily within oak woodlands but also can be found in riparian woodlands. Breeding occurs from April through July.

There are no documented CNDDB occurrences of Nuttall's woodpecker within 5 miles of the BSA. Trees within the BSA provide suitable nesting habitat for this species. Nuttall's woodpecker has potential to occur onsite.

Yellow-Billed Magpie

The yellow-billed magpie (*Pica nuttalli*) is not listed pursuant to either the California or federal ESAs but is considered a USFWS BCC. This endemic species is a yearlong resident of the Central Valley and Coast Ranges from San Francisco Bay to Santa Barbara County. Yellow-billed magpies build large, bulky nests in trees in a variety of open woodland habitats, typically near grassland, pastures or cropland. Nest building begins in late January to mid-February, which may take up to 6 to 8 weeks to complete, with eggs laid from April through May, and fledging from May through June. The young leave the nest about 30 days after hatching. Yellow-billed magpies are highly susceptible to West Nile Virus, which may have been the cause of death to thousands of magpies during 2004-2006.

There are no documented CNDDB occurrences of yellow-billed magpie within 5 miles of the BSA. Trees within the BSA provide suitable nesting habitat for this species; however, the BSA is at the eastern limit of this species' breeding distribution. Yellow-billed magpie has low potential to occur onsite.

Oak Titmouse

Oak titmouse (*Baeolophus inornatus*) is 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 documented CNDDB occurrences of oak titmouse within 5 miles of the BSA. Trees within the BSA provide suitable nesting habitat for this species and this species was observed during the site reconnaissance (Appendix B). Oak titmouse is present onsite.

Lawrence's Goldfinch

The Lawrence's goldfinch (*Spinus lawrencei*) is not listed pursuant to either the California or federal ESAs but is currently a BCC according to the USFWS. Lawrence's goldfinches breed west of the Sierra Nevada-Cascade axis from Tehama, Shasta, and Trinity counties south into the foothills surrounding the Central Valley to Kern County; and on the Coast Range from Contra Costa County to Santa Barbara County. Lawrence's goldfinches nest in arid woodlands usually with brushy areas, tall annual weeds, and a local water source. Nesting occurs during March through September.

There are no documented CNDDB occurrences of Lawrence's goldfinch within 5 miles of the BSA. Shrubs within the BSA provide suitable nesting habitat for this species. Lawrence's goldfinch has potential to occur onsite.

Bullock's Oriole

The Bullock's oriole (*Icterus bullockii*) is not listed pursuant to either the California or federal ESAs but is currently a BCC according to the USFWS. In California, Bullock's orioles are found throughout the state except the higher elevations of mountain ranges and the eastern deserts. They are found in riparian and oak woodlands where nests are built in deciduous trees, but may also use orchards, conifers, and eucalyptus trees. Nesting occurs from March through July.

There are no documented CNDDB occurrences of Bullock's oriole within 5 miles of the BSA. Trees within the BSA provide suitable nesting habitat for this species. Bullock's oriole has potential to occur onsite.

Tricolored Blackbird

The tricolored blackbird (*Agelaius tricolor*) was granted emergency listing for protection under the California ESA in December 2014, but the listing status was not renewed in June 2015. After an extensive status review, the California Fish and Game Commission listed tricolored blackbirds as a threatened species in 2018. In addition, it is currently considered a USFWS BCC and a California Department of Fish

and Wildlife (CDFW) Species of Special Concern (SSC). This colonial nesting species is distributed widely throughout the Central Valley, Coast Range, and into Oregon, Washington, Nevada, and Baja California. Tricolored blackbirds nest in colonies that can range from several pairs to several thousand pairs, depending on prey availability, the presence of predators, or level of human disturbance. Tricolored blackbirds nesting habitat includes emergent marsh, riparian woodland/scrub, blackberry thickets, densely vegetated agricultural and idle fields (e.g., wheat, triticale, safflower, fava bean fields, thistle, mustard, cane, and fiddleneck), usually with some nearby standing water or ground saturation. They feed mainly on grasshoppers during the breeding season but may also forage upon a variety of other insects, grains, and seeds in open grasslands, wetlands, feedlots, dairies, and agricultural fields. The nesting season is generally from March through August.

There are no documented CNDDB occurrences of tricolored blackbird within 5 miles of the BSA. Blackberry brambles within the BSA provide marginally suitable nesting habitat for this species. Tricolored blackbird has low potential to occur onsite.

Mammals

Based on the literature review, two special-status mammal species were identified as having potential to occur in the vicinity of the BSA (Table 4.4-1). A brief description of these two species is presented below.

Townsend's Big-Eared Bat

The Townsend's big-eared bat (*Corynorhinus townsendii*) is not listed pursuant to either the California or federal ESAs; however, this species is considered an SSC by CDFW. The Townsend's big-eared bat is a fairly large bat with prominent bilateral noes lumps and large rabbit-like ears. This species occurs throughout the west and ranges from the southern portion of British Columbia south along the Pacific coast to central Mexico and east into the Great Plains. The Townsend's big-eared bat has been reported from a wide variety of habitat types and elevations from sea level to 10,827 feet above MSL. Habitats used include coniferous forests, mixed mesophytic forests, deserts, native prairies, riparian communities, active agricultural areas, and coastal habitat types. Its distribution is strongly associated with the availability of caves and cave-like roosting habitat including abandoned mines, buildings, bridges, rock crevices, and hollow trees. This species is readily detectable when roosting due to their habit of roosting pendant-like on open surfaces. The Townsend's big-eared bat is a moth specialist with more than 90 percent of its diet composed of them. Foraging habitat is generally edge habitats along streams adjacent to and within a variety of wooded habitats. This species often travels long distances when foraging and large home ranges have been documented in California.

There are no documented CNDDB occurrences of Townsend's big-eared bat located within 5 miles of the BSA. Trees and structures within the BSA may provide suitable roosting habitat for this species. Townsend's big-eared bat has potential to occur onsite.

Pallid Bat

The pallid bat (*Antrozous pallidus*) is not listed pursuant to either the federal or California ESAs; however, this species is considered an SSC by CDFW. The pallid bat is a large, light-colored bat with long, prominent ears and pink, brown, or grey wing and tail membranes. This species ranges throughout North

America from the interior of British Columbia, south to Mexico, and east to Texas. The pallid bat inhabits low elevation (below 6,000 feet above MSL) rocky arid deserts and canyonlands, shrub-steppe grasslands, karst formations, and high elevation (above 7,000 feet above MSL) coniferous forest. This species roosts alone or in groups in the crevices of rocky outcrops and cliffs, caves, mines, trees, and in various human structures such as bridges and barns. The pallid bat is a feeding generalist that gleans a variety of arthropod prey from surfaces as well as capturing insects on the wing. Foraging occurs over grasslands, oak savannahs, ponderosa pine forests, talus slopes, gravel roads, lava flows, fruit orchards, and vineyards. Although this species utilizes echolocation to locate prey, they often use only passive acoustic cues. This species is not thought to migrate long distances between summer and winter sites.

There are no documented CNDDB occurrences of pallid bat located within 5 miles of the BSA. Trees and structures within the BSA may provide suitable roosting habitat for this species. Pallid bat has potential to occur onsite.

4.4.1.6 Critical Habitat or Essential Fish Habitat

There is no designated critical habitat mapped within the BSA.

Based on the literature review, anadromous fish critical habitat for steelhead (Central Valley Distinct Population Segment), and Essential Fish Habitat (EFH) for chinook salmon have the potential to occur within the Jackson, California 7.5-minute quadrangle. However, there is no habitat for fish within the BSA. Therefore, there is no anadromous fish critical habitat or EFH present within the BSA.

4.4.1.7 Wildlife Movement Corridors and Nursery Sites

The Essential Connectivity Areas map identifies larger, relatively natural habitat blocks that support native biodiversity and areas essential for connectivity between them. The BSA does not fall within a small natural area that could support ecological value or a natural habitat block. However, the BSA does fall within an Essential Habitat Connectivity area.

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 site reconnaissance. No nursery sites have been documented within the BSA, and none were observed during the site reconnaissance.

4.4.1.8 Oak Woodlands

Interior live oak woodland is present within the BSA. Impacts to oak woodland would be subject to the Amador County General Plan.

4.4.2 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 with Mitigation Incorporated

The BSA supports potential habitat for special-status species within the impact area. Potential effects to special-status species are summarized in the following sections by taxonomic group or species.

4.4.2.1 Special-Status Plants

As discussed above, the BSA may support potential habitat for several special-status plants. No special-status plants were found during the field reconnaissance site visit; however, protocol-level surveys have not been conducted. If a special-status plant is found at the site, Project impacts could include damage or loss of individual plants, loss of occupied habitat, and indirect impacts such as disturbance from human encroachment and changes in habitat quality due to alteration of hydrology, erosion, and transport of soil, debris or pollutants into occupied habitat from adjacent Project areas. Implementation of Mitigation Measure BIO-1, which identifies avoidance areas, will reduce impacts to special-status plants to less than significant.

4.4.2.2 Special-Status Invertebrates

The Proposed Project contains marginally suitable habitat for Crotch's bumble bee. Project implementation could result in impacts to Crotch's bumble bee. Therefore, the Proposed Project will incorporate Mitigation Measure BIO-2, which will minimize potential impacts to the Crotch's bumble bee to a less than significant impact.

4.4.2.3 Special-Status Birds and Nesting Birds (Including Raptors)

The Proposed Project contains suitable nesting habitat for six special-status birds, as well as migratory birds, non-migratory nongame birds, and raptors protected under the California Fish and Game Code and Migratory Bird Treaty Act (MBTA). Project-related activities could result in the removal of protected active nests or disruption of nesting activities leading to abandonment of an active nest with eggs or young. Implementation of Mitigation Measure BIO-3, which will require preconstruction surveys for Tricolored Blackbird, in addition to Mitigation Measure BIO-4, which would require preconstruction nesting bird surveys, impacts to special-status birds and nesting birds would be less than significant.

4.4.2.4 Special-Status Mammals

The trees in the Proposed Project Area represent potential roosting habitat for Townsend's big-eared bat and pallid bat. The Project Area also contains structures that represent potential roosting habitat for special-status bats. If occupied bat roosts are present, removal of the habitat feature could result in direct mortality or injury to special-status bats. Removal during the maternity roosting season could result in the loss of an established maternity roosting site and injury or mortality of pups that are not yet able to fly. Removal of a roost site during the winter season could also result in direct injury or death of special-status bats, particularly during time periods of colder weather or heavy rain, when bats are more likely to be in torpor. Therefore, to avoid and minimize impacts to special-status bats or roosting colonies, Mitigation Measure BIO-5 shall be incorporated and any impacts to special-status mammals shall be reduced 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?	☐	☐	☐	☒

No Impact.

As discussed above, one sensitive natural community was identified as having the potential to occur within the BSA: Ione chaparral. This sensitive natural community was determined to be absent from the BSA during the site reconnaissance. Therefore, the Project will have no impact on sensitive natural communities.

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 With Mitigation Incorporated.

The aquatic resources within the BSA are likely not considered potential jurisdictional Waters of the U.S.

The seasonal wetland (SW-1) is likely not considered potential jurisdictional Waters of the State. The ephemeral drainage (ED-1) would likely be considered Waters of the State and regulated by Section 401 of the Clean Water Act (CWA) and/or the Porter-Cologne Water Quality Control Act. Additionally, the

ephemeral drainage may also be subject to regulation under Section 1602 of the California Fish and Game Code.

Based on current Project plans, the ephemeral drainage is assumed to be avoided. However, this feature may be indirectly impacted by the Project. Indirect impacts may include inadvertent encroachments, changes in hydrology, and runoff and erosion from the BSA. . Therefore, implementation of Mitigation Measure BIO-6 would be required, which would require avoidance of aquatic resources when feasible, and would establish the required permits when avoidance is not feasible. With the implementation of the mitigation measure listed above, impacts to wetlands would be lowered to a less than significant impact.

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.

Project implementation may temporarily disturb and displace wildlife from the Project 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. Additionally, there are no documented nursery sites, and no nursery sites were observed within the Proposed Project Area during the site reconnaissance. Therefore, the Project is expected to have a less than significant impact on wildlife movement.

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 With Mitigation Incorporated.

Interior live oak woodland protected under the Amador County General Plan is present within the BSA. The Proposed Project would entail minor trimming of trees as needed to obtain site access. No removal of oak woodland is planned as part of the Project; however, impacts to oak woodland due to Project implementation could include root and crown damage, soil compaction, and introduction or spread of invasive species. Therefore, Mitigation Measure BIO-7 is included which would ensure that the Proposed Project adheres to the Amador County General Plan.

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.

The Proposed Project is not covered by any local, regional, or state conservation plans. Therefore, the Project would not conflict with any plans and there would be no impact.

4.4.3 Mitigation Measures

BIO-1: **Special-Status Plant Habitat Avoidance.** Where feasible, Project-related activities shall be restricted to previously developed or disturbed areas to avoid disturbance of habitats that may support special-status plants.

The Project impact limits shall be clearly demarcated prior to construction, and all workers shall be made aware of the impact limits and avoided areas. No work shall occur outside of the Project impact limits. All vehicles and equipment shall be restricted to the Project impact limits or existing designated access roads and staging areas.

If suitable habitat for special-status plants cannot be avoided, the applicant shall perform special-status plant surveys according to CDFW, California Native Plant Society, and USFWS protocols. Surveys shall be conducted throughout all suitable habitat within the Project footprint and a 50-foot buffer, where accessible, to address potential direct and indirect impacts of the Project. Surveys shall be conducted by a qualified biologist and timed according to the identifiable period for target species (typically the blooming period). To the extent feasible, known reference populations will be visited prior to surveys to confirm target species are evident and identifiable at the time of the survey.

If no special-status plants are found, no further measures pertaining to special-status plants are necessary.

If special-status plants are identified onsite, the Project shall be modified to the extent feasible to prevent disturbance or loss of special-status plants. No-disturbance buffers shall be established around sensitive plant populations to be preserved in or adjacent to the Project Area. A 50-foot buffer should be maintained between Project activities and sensitive plant populations, unless otherwise determined by a qualified biologist. Buffer distances may vary between species depending on listing status, rarity, and other factors. Buffer areas will be clearly demarcated in the field, and no construction or ground-disturbing activities will occur within the boundaries of the delineated area.

If a special-status plant species is found and avoidance is not feasible, additional measures may be developed in consultation with CDFW, the USFWS, and/or the CEQA Lead Agency. These measures may include restoration or permanent preservation of habitat for the special-status plant species or translocation (via seed collection and/or transplantation) from planned impact areas to unaffected suitable habitat.

BIO-2: **Crotch's Bumble Bee.** If Crotch's bumble bee is no longer a Candidate or formally Listed species under the California ESA at the time ground-disturbing activities occur, then no avoidance or minimization measures are proposed for the species.

Because Crotch's bumble bee nest locations are chosen on an annual basis and the site provides potential nesting habitat, a CDFW-approved Crotch's bumble bee biologist shall conduct three weekly preconstruction nesting surveys with focus on detecting active nesting colonies with the third and final survey conducted within 24-hours immediately prior to ground disturbing activities that are scheduled to occur during the flight season (February through October). Surveys shall be completed at a minimum of one person-hour of searching per three acres of suitable habitat during suitable weather conditions (sustained winds less than 8 miles per hour, mostly sunny to full sun, temperatures between 65 and 90˚F) at an appropriate time of day for detection (at least an hour after sunrise and at least two hours before sunset, though ideally between 9am-1pm). If no nests are found but the species is present, a full-time qualified biological monitor shall be present during initial vegetation or ground disturbing activities that are scheduled to occur during the queen flight period (February through March), colony active period (March through September), and/or gyne flight period (September through October). The Crotch's bumble bee biologist shall immediately notify CDFW of the detection as further coordination may be required to avoid or mitigate certain impacts. If an active Crotch's bumble bee nest is detected, an appropriate no disturbance buffer zone (including foraging resources and flight corridors essential for supporting the colony) shall be established around the nest to reduce the risk of disturbance or accidental take and the designated biologist shall coordinate with CDFW to determine if an Incidental Take Permit under Section 2081 of the California ESA will be required. Nest avoidance buffers may be removed at the completion of the flight season and/or once the qualified Crotch's bumble bee biologist deems the nesting colony is no longer active and CDFW agrees with the determination.

If initial grading is phased or delayed for any reason, the 24-hour preconstruction nesting survey will be repeated prior to ground-disturbing activities that are scheduled to occur during the same flight season (February through October). Three preconstruction Crotch's bumble bee nesting surveys shall be required in subsequent years of construction whenever vegetation and ground disturbing activities are scheduled to occur during the flight season (February through October) if nesting habitat is still present or has re-established and will be affected.

BIO-3: **Tricolored Blackbird.** Within 30 days prior to construction, a qualified wildlife biologist shall survey for nesting tricolored blackbirds within the Project work area and a 500-foot radius. If

active nests are located during the preconstruction surveys, CDFW shall be notified. The nests shall be designated a sensitive area and protected by an avoidance buffer of 500 feet, or as otherwise determined in coordination with CDFW. The avoidance buffer shall be maintained until a qualified biologist has determined that the young have fledged and are independent of the nest. Monitoring of occupied nests shall be conducted by a qualified biologist during construction activities, and avoidance buffers may be adjusted if any agitated behavior by the nesting birds is observed.

BIO-4: **Special-Status Bird and Migratory Bird Treaty Act–Protected Birds.** During the nesting season, a preconstruction nesting bird survey shall be conducted within 14 days prior to the commencement of Project-related activities to identify active nests that could be impacted by construction.

The preconstruction nesting bird survey shall include accessible areas within 500 feet of the Project boundaries for raptors and 100 feet for other birds protected under the MBTA.

If active nests are found, a no-disturbance buffer shall be established around the nest. A qualified biologist, in consultation with CDFW, shall establish a buffer distance. The buffer shall be maintained until the nestlings have fledged, to be determined by a qualified biologist. No further measures are necessary once the young are independent of the nest or the nest is otherwise no longer occupied.

BIO-5: **Special-Status Bats and Maternity Roosts.** At least 30 days prior to initiation of Project activities, a bat habitat assessment shall be conducted by a qualified bat biologist to examine trees and structures for suitable bat roosting habitat. High-quality habitat features (e.g., large tree cavities, basal hollows, loose or peeling bark, abandoned structures) will be identified and the area around the features searched for bats and bat sign (i.e., guano, staining, culled insect parts).

If suitable bat roosting habitat is identified, the feature shall be avoided and protected in place to the extent feasible. A buffer area shall be established around the roost site to minimize disturbance of roosting bats. The size of the buffer area will be determined in consultation with CDFW.

If impacts to suitable trees or structures cannot be avoided, removal shall be timed to occur outside of the maternity roosting season (generally April 1 to August 31) and only when nighttime low temperature are above 45°F and rainfall is less than 1/2 inch in 24 hours.

If trees with identified bat roosting habitat are to be removed, a two-phase removal process conducted over two consecutive days shall be used. On the first day, tree limbs and branches will be removed, using chainsaws only. Removal will avoid limbs with cavities, cracks, crevices, or deep bark fissures. On the second day, the remainder of the tree will be removed.

Standing dead trees or snags with habitat features should be removed over a single day by gently lowering the tree or snag to the ground. The tree or snag shall be left undisturbed onsite for the next 48 hours.

Removal and trimming of trees with potential roosting habitat shall be conducted in the presence of a biological monitor.

If removal/modification of a suitable tree or structure must occur during the maternity season, a qualified bat biologist shall conduct a focused emergence survey(s) within 48 hours of scheduled work. If a maternity roost is located, whether solitary or colonial, that roost will remain undisturbed until after the maternity season or a qualified biological monitor has determined the roost is no longer active.

BIO-6: **Aquatic Resources.** The Project shall submit the ARD to the U.S. Army Corps of Engineers (USACE) and obtain an aquatic resources verification, Approved Jurisdictional Determination, or Preliminary Jurisdictional Determination.

The Project shall avoid aquatic resources to the extent feasible. Aquatic resources located within 50 feet of the Project footprint will be designated as Environmentally Sensitive Areas. The Environmentally Sensitive Areas shall be clearly demarcated with orange construction fencing or other visible barrier, and no Project-related activities shall be permitted within the delineated area.

To minimize potential indirect effects, the applicant shall prepare and implement an Erosion and Sediment Control Plan to avoid and minimize erosion and runoff to wetlands and other waters that are to remain within or adjacent to the Project Area.

If the Project will disturb at least 1 acre of land, the Project applicant shall obtain coverage under the General Construction Storm Water Permit from the Regional Water Quality Control Board (RWQCB) by preparing a Storm Water Pollution Prevention Plan (SWPPP) and implementing Best Management Practices (BMPs) to reduce water quality effects during construction.

If discharges to Waters of the State will occur, the applicant shall obtain Waste Discharge Requirement (WDRs) or a waiver of WDRs from the RWQCB as required pursuant to the Porter-Cologne Water Quality Control Act.

If alteration of the bed, channel, or bank of an ephemeral drainage is proposed, the applicant shall notify CDFW of the Proposed Project activities and obtain a Streambed Alteration Agreement prior to Project implementation.

BIO-7: **Oak Woodlands.** Where feasible, avoid or minimize ground disturbance within the oak woodland. Mapping of oak woodland resources within the BSA and demarcation of avoidance zones during construction may be required.

If necessary, a Certified Arborist or qualified biologist shall be present during tree trimming and initial work within the oak woodland.

If oak woodland is to be removed, one of the following bulleted measures shall be implemented to mitigate the impact from loss of oak woodland habitat pursuant to PRC Section 21083.4:

- Onsite mitigation, which requires the dedication in perpetuity of a conservation easement on mitigation lands that are contiguous to the Project and are biologically functional.
- Planting replacement trees, including maintaining plantings and replacing dead or diseased trees for seven years after the trees are planted.
- A monetary contribution to the Oak Woodlands Conservation Fund for the purpose of purchasing oak woodlands conservation easements.

4.5 Cultural Resources

ECORP prepared a Cultural Resources Inventory Report (ECORP 2024c) for the Proposed Project to determine if cultural resources were present in or adjacent to the Project Area and assess the sensitivity of the Project Area for undiscovered or buried cultural resources. Cultural resources include pre-contact archaeological sites, historic archaeological sites, and historic built environment sites. Pre-contact archaeological sites are places that contain the material remains of activities carried out by the native population of the area (i.e., Native Americans) prior to the arrival of Europeans in the Project Area. Places that contain the material remains of activities carried out by people after the arrival of Europeans are considered historic archaeological sites. Historic built environment features include houses, garages, barns, commercial facilities, industrial facilities, community buildings, and other buildings, structures and facilities that are more than 50 years old. Historic built environment features may also have associated archaeological deposits, such as abandoned wells, cellars, privies, refuse deposits, and foundations of former outbuildings.

The information provided below is an abridged version of the Cultural Resources Inventory Report and is included here to provide a brief context of the potential cultural resources in the Project Area. Due to the sensitive nature of cultural resources and their records and documentation, which are restricted from public distribution by state and federal law, the IS/MND appendices do not include the cultural resources report; however, all pertinent information necessary for impact determinations is included in this section. A redacted version of the cultural resources report that does not include site records or locations may be obtained by contacting the City.

4.5.1 Environmental Setting

The Project is located on the water treatment plant site. The water treatment plant site is located on a private road to the north of Kennedy Mine Road and SR-49. The new will be located just south of the existing Martell. The existing building was part of the water treatment plant and repurposed into a site office; it will be protected in place for non-water system related use by the City. A new building for water system use will be constructed west of the new tanks. The existing reservoir will be demolished to allow for construction of the new tanks.

The slope across the Project Area varies from 5-10 degree slope near the reservoir to 30 degree slope along the winding entrance road. According to the Natural Resources Conservation Service (NRCS) Web Soil Survey there are three types of soil and water within the Project Area: Auburn very rocky silt loam, Exchequer and Auburn, and Supan (ECORP 2024c).

There exists a low potential for buried pre-contact archaeological sites in the Project Area because the Project Area is located in an area that has an underlying soil that predates human occupation, and is too far away from a source of alluvium (i.e., a river) that would cause pre-contact sites to be buried. Additionally, other portions of the Project Area are situated on a hill with exposed bedrock.

Therefore, soils and hydrology data indicate a low potential for buried pre-contact archaeological sites within the Project Area.

4.5.1.1 Amador County and City of Jackson History

Amador County was formed in 1854, when it was separated from Calaveras County by the California Legislature. Amador County was named for Jose Maria Amador, who owned the San Ramon land grant in Contra Costa County. During the Gold Rush in 1848-1849, he and his men mined along a creek that was later named Amador Creek. His gold mining camp came to be known as Amador City. Jackson, which had previously been the county seat of Calaveras County, became the county seat of Amador County when it was split from Calaveras County (ECORP 2024c).

The Project Area lies within the boundaries of the City's SOI but outside of the City limits. The City was named after the lawyer Alden M. Jackson in 1850. Prior to 1850, the place that would become Jackson was originally named Bottileas, based on the Spanish word for bottle (*botella*), due to the large amounts of refuse left over from miners that lived in the area. Jackson was originally settled as a result of gold mining and was one of the first towns to be established within the Mother Lode due to its centralized location along the road between Sacramento and the southern gold mines in the hills to the east. The consistent amount of gold extracted from surrounding mines and creeks helped Jackson maintain a steady population (ECORP 2024c).

Several famous and lucrative mines are located near Jackson, including the Jackson Gate, the Kennedy, and the Argonaut mines, located approximately one mile north of town. The lucrative gold mines near Jackson were a part of the most productive district of the Mother Lode belt, producing more than $180 million in gold. The Argonaut Mine was worked from the 1850s to 1942, producing an overall estimated $25 million. However, in 1922, 47 miners were killed as a result of a fire within the mine. To this day, the Argonaut Mine disaster in 1922 is the largest loss of life in a California mine. As with the Argonaut Mine, the Kennedy Mine was a high producer, with an estimated return of nearly $34 million. Operations at the Kennedy Mine began in 1856 and continued until the beginning of World War II. The Kennedy Mine was one of the deepest gold mines in the United States at 5,912 vertical feet and also had a 100-stamp mill. The Kennedy, Argonaut, Keystone, and Plymouth mines were the largest and most productive mines in Amador County.

Kennedy Mine

The Project Area is located within the Kennedy Mine Historic District. In 1855, Andrew Kennedy, an Irish Immigrant, bought a mining claim in Jackson, which is within the Project Area. In 1857, Kennedy and a man named Henning discovered the Kennedy Mine, located 0.35 miles from the Project Area. By 1868, a mill had been erected at the mine, as well as a steam engine, boiler, machinery, and boarding house. In 1870, the mine was incorporated as the Kennedy Mining Company. By 1885, the mine was purchased by mineralogist F.F. Thomas. Who erected a new mill at the mine as well as deepened the mining shaft, beginning a very profitable period for the mine in which much gold was discovered. By 1920, numerous lawsuits from the Argonaut Mine as well as two fires within the Kennedy mine greatly hurt the profits of the Kennedy Mine, and the mine eventually shut down in 1942 (ECORP 2024c)

Martell Reservoir and Clearwell

Originally part of the Kennedy Mine property, the land in the project area, which was occupied by the Martell Reservoir, was sectioned off to the City at an unknown period after the closing of the mine. Aerial photography indicates a reservoir in the project area by 1959. It was not until the 1970s that the City built the current Martell Reservoir/Clearwell in this exact location as part of the City's water system. The reservoir is similar to many earthen reservoirs constructed in the same timeframe. Although once part of the Kennedy Mine property, the land which constitutes the Martell Reservoir/Clearwell is a non-contributing element of the mine due to the Martell Reservoir/Clearwell being located above ground. The old Martell Reservoir was a holding pond for the treatment plant. By 2005, aerial photography shows the reservoir as dry and presumably no-longer in use (ECORP 2024c).

4.5.1.2 Records Search and Literature Review

ECORP requested a records search for the Project Area at the North Central Information Center (NCIC) of the California Historical Resources Information System (CHRIS) at California State University, Sacramento on January 11, 2024 (NCIC search #AMA-24-3; Appendix C). The records search revealed that a total of 49 previous cultural resources investigations have been conducted in or within 1 mile of the property. Of the 49 studies, 1 was conducted within the Project Area and the other 48 were within the 1-mile radius. These studies revealed the presence of pre-contact sites, including one burial site, lithic scatters, and processing and habitation sites, and historical sites, including water transport systems, dams, mines, rock walls and sites associated with historic structures and roads.

The records search also determined that 38 previously recorded pre-contact and historic-era cultural resources are located within 1 mile of the Project Area. Of these, four are believed to be associated with Native American occupation of the vicinity, and 29 are historic-era sites, associated with early European-American settlements and mining activities. One resource that was initially recorded in 1983 by Cenotto, P-03-1576, encompasses a portion of the Project Area (Cenotto 1983). This historic-period resource is the Kennedy Mine Historic District. It is comprised of seven distinct areas and 17 buildings; four of which were previously listed on the National Register of Historic Places (NRHP). None of these resources are located within or near the Project Area.

A search of the Sacred Lands File (SLF) by the Native American Heritage Commission (NAHC) resulted in a negative indication for the presence of Native American cultural resources in the Project Area. According to the NRCS Web Soil Survey website (NRCS 2024b) there are three types of soil and water within the Project Area. There exists a low potential for buried pre-contact archaeological sites in the Project Area because the Project Area is located in an area that has an underlying soil that predates human occupation, and is too far away from a source of alluvium (i.e., a river) that would cause pre-contact sites to be buried. Additionally, other portions of the Project Area are situated on a hill with exposed bedrock. Therefore, soils and hydrology data indicate a low potential for buried pre-contact archaeological sites within the Project Area.

4.5.1.3 Pedestrian Survey

ECORP surveyed the Project Area for cultural resources on January 29, 2024. Surface visibility was greater than 60 percent, small parts of the Project Area have been previously paved. Sections of the Project Area had overgrown vegetation that varied in height from a few inches to roughly 4 feet.

4.5.1.4 Analysis

The records search revealed one previously recorded site listed on the NRHP, the Kennedy Mine Historic District. The 2024 field survey yielded two unrecorded historic-period resources in the Project Area, the access road (JWT-01) and the Martell Reservoir/Clearwell (JWT-02). The Kennedy Mine Historic District (P-03-1576) was previously evaluated and is currently listed on the NRHP and includes the Access Road (JWT-01) portion of the Project Area. ECORP found no evidence of mining within the Project Area.

ECORP evaluated JWT-01 and determined it was a non-contributing element to the Kennedy Mine Historic District as it was constructed c. 1949, well after the period of significance for the Kennedy Mine Historic District. ECORP's evaluation of JWT-01 found it not individually eligible under any NRHP/California Register of Historical Resources (CRHR) Criteria, and a non-contributor to the Kennedy Mine Historic District.

ECORP evaluated the Martell Reservoir/Clearwell (JWT-02). ECORP's evaluation of JW-02 found the resource not eligible under any NRHP/CRHR Criteria.

4.5.2 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 Section 15064.5?	☐	☐	☐	☒

No Impact.

The records search, literature review and field survey identified two historic-era resources in the Project Area; P-03-1576 (Kennedy Mine Historic District) and JWT-01 (Access Road). P-03-1576 (Kennedy Mine

Historic District) is listed on the NRHP; therefore, impacts to the resource could potentially be considered a significant impact. The recorded portion of the Kennedy Mine Historic District covers a portion of the Project Area; however, the field survey did not identify any features within the Project Area. Resource JWT-01 (Access Road) was recorded, evaluated and recommended not eligible for the NRHP/CRHR. In addition, JWT-01 (Access Road) is a non-contributing element to the P-03-1576 (Kennedy Mine Historic District). Therefore, no Historic Properties under Section 106 of the National Historic Preservation Act (NHPA) or Historical Resources under CEQA will be affected by the Proposed Project.

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 Section 15064.5?	☐	☒	☐	☐

Less Than Significant With Mitigation.

The review of maps and records, soils and hydrology data, and previous studies in the vicinity indicate a low potential for the presence of previously undiscovered buried historic-period and pre-contact archaeological deposits at the Project Area. If previously unknown archaeological resources are encountered during ground-disturbing activities, and if those resources are determined to be either historical resources or unique archaeological resources, the impact could result in damage that constitutes an impact to the aspects of integrity that make the resource significant. If that occurs, the impact could be significant. There is a potential for ground-disturbing activities to expose previously unrecorded cultural resources; therefore, with implementation of CUL-1, impacts to archaeological resources will remain less than significant.

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.

There are no known burial or dedicated cemetery sites within the Project Area; however, as stated above in b) there always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources or human remains; therefore, with implementation of CUL-1, impacts to human remains will remain less than significant.

4.5.3 Mitigation Measures

CUL-1: **Unanticipated Discoveries.** 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 by CEQA or a historic property under Section 106 of the 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 2) that 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 (Assembly Bill [AB] 2641). The archaeologist shall notify the Amador County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 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 (§ 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 (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 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.

4.6 Energy

This IS/MND analyzes energy consumption due to the potential direct and indirect environmental impacts associated with the Proposed Project. Such impacts include the depletion of nonrenewable resources (e.g., oil, natural gas, coal) and emissions of pollutants during the construction phase.

4.6.1 Environmental Setting

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 and Electric Company (PG&E) provides power to the Project Area. PG&E uses 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 and central California areas and provides about 16 million people with electric and natural gas service (PG&E 2024).

4.6.1.1 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 associated with all non-residential land uses in Amador County from 2018 to 2022 is shown in Table 4.6-1. As indicated, the demand for electricity has increased since 2018.

Table 4.6-1. Non-Residential Electricity Consumption in Amador County (2018–2022)

Year	Electricity Consumption (kilowatt-hours)
2022	197,616,494
2021	202,639,069
2020	194,991,369
2019	175,982,808
2018	163,133,751

Source: California Energy Commission 2023a

The natural gas consumption associated with all non-residential land uses in Amador County from 2018 to 2022 is shown in Table 4.6-2. As indicated, the demand for natural gas has increased since 2018.

Table 4.6-2. Non-Residential Natural Gas Consumption in Amador County (2018–2022)

Year	Natural Gas Consumption (therms)
2022	5,290,722
2021	6,031,736

Table 4.6-2. Non-Residential Natural Gas Consumption in Amador County (2018–2022)	
Year	**Natural Gas Consumption (therms)**
2020	5,233,307
2019	5,058,829
2018	4,274,682

Source: California Energy Commission 2023a

Total automotive fuel consumption in Amador County from 2019 to 2023 is shown in Table 4.6-3. As shown, automotive fuel consumption has decreased since 2019.

Table 4.6-3. Automotive Fuel Consumption in Amador County (2019–2023)	
Year	**Fuel Consumption (gallons)**
2023	17,407,834
2022	17,576,010
2021	17,620,075
2020	15,705,889
2019	17,960,477

Source: California Air Resources Board 2024

4.6.2 Regulatory Setting

4.6.2.1 Federal

Federal Clean Air Act

The federal CAA is the comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes the USEPA to develop NAAQS to protect public health and public welfare and to regulate emissions of hazardous air pollutants.

4.6.2.2 State

Integrated Energy Policy Report

Senate Bill (SB) 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial Integrated Energy Policy Report (IEPR) that assesses major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the State's economy; and protect public health and safety (PRC Section 25301a). Each biennial IEPR takes into account various factors such as energy supply, demand, infrastructure, environmental considerations, and economic impacts. The report aims to address key energy challenges and provide recommendations to achieve a reliable, affordable, and sustainable energy system for California (CEC 2023b).

Some of the key areas typically covered in the report include:

- *Renewable Energy* – The IEPR focuses on promoting renewable energy sources such as solar, wind, geothermal, and biomass. It assesses the state's progress in meeting its renewable energy goals, identifies barriers, and proposes strategies to increase renewable energy generation and integration into the grid.
- *Energy Efficiency* – The report highlights the importance of energy efficiency measures to reduce energy consumption and greenhouse gas (GHG) emissions. It explores policies and initiatives to promote energy-efficient technologies and practices in buildings, transportation, and industries.
- *Grid Modernization* – The IEPR addresses the modernization and optimization of the electrical grid infrastructure to accommodate a higher penetration of renewable energy, improve grid reliability, and support emerging technologies such as energy storage and electric vehicles.
- *Transportation* – The report typically includes a section on transportation, focusing on reducing dependence on fossil fuels and promoting the adoption of electric vehicles and alternative fuels. It may discuss infrastructure development, incentives, and policies to accelerate the transition to cleaner transportation options.
- *Climate Change Mitigation* – Given California's commitment to combating climate change, the IEPR often emphasizes strategies to reduce GHG emissions and achieve the state's climate goals. This may include discussions on carbon pricing, cap-and-trade programs, and the integration of climate considerations into energy planning.
- *Energy Resilience* – The report may address strategies to enhance the resilience of the energy system, considering factors such as extreme weather events, natural disasters, and cybersecurity risks. It could discuss measures to ensure a reliable and uninterrupted supply of energy during emergencies.
- *Economic Impacts and Equity* – The IEPR often explores the economic implications of energy policies and initiatives, including job creation, investment opportunities, and the equitable distribution of benefits across different communities and socioeconomic groups.

The CEC prepares these assessments and associated policy recommendations every two years, with updates on alternate years, as part of the IEPR.

The 2023 IEPR focuses on next steps for transforming transportation energy use in California. The 2023 IEPR addresses the role of transportation in meeting state climate, air quality, and energy goals; the transportation fuel supply; the Alternative and Renewable Fuel and Vehicle Technology Program; current and potential funding mechanisms to advance transportation policy; transportation energy demand forecasts; the status of statewide plug-in electric vehicle infrastructure; challenges and opportunities for electric vehicle infrastructure (CEC 2023c).

4.6.2.3 Local

Amador County Energy Action Plan

The Amador County Energy Action Plan (EAP) is predominantly intended to evaluate energy consumed by buildings and municipal operations. The goals of the Amador County EAP include energy efficiency in existing structures, energy performance in new construction, expansion of renewable energy options, energy efficiency in municipal operations, and water conservation which reduces energy needed to transport and treat water (Amador County 2015).

4.6.3 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

4.6.3.1 Construction Impacts

A quantifiable source of energy associated with the Proposed Project includes the equipment fuel necessary for construction. The Proposed Project would replace the Martell Reservoir/Clearwell with two storage tanks which would be located approximately in the footprint of the existing reservoir; install new inlet and outlet piping to and from the new tanks and connect to existing fill and distribution pipes; and a new building west of the storage tanks for water system operations use. 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 2023, the most recent full year of data. The amount of total construction-related fuel used was estimated in Table 4.6-4 using ratios provided in the Climate Registry's General Reporting Protocol for the Voluntary Reporting Program, Version 2.1 (Climate Registry 2016).

Table 4.6-4. Proposed Project Fuel Consumption		
Energy Type	**Annual Energy Consumed**	**Percentage Increase Countywide**
Vehicular/Equipment Fuel Consumption		
Project Construction – Year One	14,581 gallons	0.08
Project Construction – Year Two	8,473 gallons	0.05

Notes: The Project increase in construction-related fuel consumption is compared with the countywide construction related fuel consumption in 2023, the most recent full year of data.

Source: Climate Registry 2016

As shown in Table 4.6-4, the Project's gasoline fuel consumption during construction is estimated to be 14,581 gallons of fuel in year one and 8,473 gallons of fuel in year two, which would increase the annual gasoline fuel use in Amador County by 0.08 and 0.05 percent respectively 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.

4.6.3.2 Operational Impacts

The existing Martell Reservoir /Clearwell would be replaced with two tanks. The existing onsite building was part of the water treatment plant and was repurposed into a site office. This building will be protected in place for non-water-system City operations. A new building will be constructed west of the storage tanks for water system operations. For the purpose of this analysis, Project increases in electricity and natural gas are compared with the countywide non-residential electricity consumption in 2022, the most recent full year of data (Table 4.6-5).

Table 4.6-5. Proposed Project Electricity and Natural Gas Consumption		
Energy Type	**Annual Energy Consumed**	**Percentage Increase Countywide**
Electricity Consumption		
Project Operations	39,766 kilowatt-hours	0.02
Natural Gas Consumption		
Project Operations	549 therms	0.01

Notes: The Project increase construction-related fuel consumption is compared with the countywide non-residential electricity consumption in 2022, the most recent full year of data.

Source: California Emissions Estimator Model, Version 2022.1.1

As shown in Table 4.6-5, the Project's electricity consumption is estimated to be 39,766 kWh, which would increase the annual electricity consumption in Amador County by 0.02 percent. The Project's natural gas consumption is estimated to be 549 therms per year, which would increase the annual natural gas consumption in Amador County by 0.01 percent. As such, the Project would have a nominal effect on electricity and natural gas demand. 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 IEPR provides policy recommendations to be implemented by energy providers in California. Electricity would be provided to the Project by PG&E. PG&E's Energy Efficiency 2024-2031 Strategic Business Plan builds on existing State programs and policies that support the IEPR goals of improving electricity, natural gas, and transportation fuel energy use in California. PG&E's Energy Efficiency Plan supports the State's goals of zero-carbon electricity and economy-wide carbon neutrality and moving towards a climate-resilient economy. PG&E's Energy Efficiency portfolio can address climate change by both delivering solutions that help to decarbonize customers' homes and buildings and by supporting the use of clean and renewable energy resources powering our electric system (PG&E 2022). Thus, because PG&E is consistent with the 2023 IEPR and the Project would procure its energy from PG&E, the Project is consistent with and would not otherwise interfere with or obstruct implementation of the goals presented in the 2023 IEPR.

The Amador County EAP serves to provide goals, strategies, and actions to reduce Amador County's energy consumption and achieve greater energy efficiency. The Proposed Project would comply with strategies outlined in the Amador County EAP, such as Strategy 2.1: Improve compliance with Title 24 Green Building and Energy Efficiency Standards (Amador County 2015).

The Project would be built to the Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6, of the CCR (Title 24). Title 24 was established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 is updated approximately every three years, with the most recent update of the 2022 standards that became effective on January 1, 2023. The 2022 Energy Standards improve upon the 2019 Energy Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2022 update to the Energy Standards encourages efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, among other goals. The 2022 Energy Standards build and improve upon previous goals of achieving net Zero Net Energy. Buildings permitted on or after January 1, 2023, must comply with the 2022 Standards. Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments. Additionally, in January 2010, the State of California adopted the California Green Building Standards Code that establishes mandatory green building standards for all buildings in California. The

code was most recently updated in 2022, effective for all applicable developments starting January 1, 2023. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. With these building standards in place, the Project would not obstruct any state or local plan for renewable energy or energy efficiency. No impact would occur.

4.6.4 Mitigation Measures

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

4.7 Geology and Soils

The Geology and Soils chapter of this document describes the geologic and soil characteristics of the Proposed Project Areas and evaluates the extent to which implementation of the Project could be affected by seismic-related ground failure and soil stability. Information sources for this evaluation include the City of Jackson General Plan's Environmental Hazards Element, and the NRCS.

4.7.1 Environmental Setting

4.7.1.1 Geomorphic Setting

The City and Amador County are located in the Sierra Nevada foothills of central California. A west to east cross section through California at the City would reveal three major geomorphic provinces. These consist of the Coast Ranges, Great Valley, and Sierra Nevada geomorphic provinces.

Beyond the Great Valley to the east are the granitic plutons and metamorphic rocks which form the Sierra Nevada geomorphic province. Younger volcanic and sedimentary deposits are also present in the Sierra Nevada. The Proposed Project lies within the Sierra foothill metamorphic belt which consists of a strip of Mesozoic sedimentary and volcanic rock which have been highly metamorphosed by the orogenic processes which formed the Sierra Nevada. (City 2023b)

4.7.1.2 Regional Seismicity and Fault Zones

Classifying and Identifying Faults

A fault is a fracture in the crust of the earth. A fault trace is the line on the earth's surface defining the fault. Displacement of the earth's crust along faults releases energy in the form of earthquakes and in some cases in fault creep. Most faults are the result of repeated displacements over a long period of time.

Surface rupture occurs when movement on a fault deep within the earth breaks through to the surface. Surface ruptures have been known to extend up to 50 miles with displacement of an inch to 20 feet. Fault rupture almost always following preexisting faults, which are zones for weakness.

Faults are further distinguished as active, potentially active, or inactive:

- *Active:* An active fault is a Historic or Holocene fault that has had surface displacement within the last 11,000 years.

- *Potentially Active:* A potentially active fault is a pre-Holocene Quaternary fault that has evidence of surface displacement between 1.6 million and 11,000 years ago.
- *Inactive:* An active fault is a pre-Quaternary fault that does not have evidence of surface displacement within the past 1.6 million years. The probability of fault rupture is considered low; however, this classification does not mean that inactive faults cannot or will not rupture.

The 2015 Fault Activity Map of California provided by DOC identified potential seismic sources around the Proposed Project. The Proposed Project is generally located approximately 5 miles north of the Poorman Gulch Fault in the Bear Mountains Fault Zone. This fault is considered a Late Quaternary fault (meaning that there was a fault displacement during the past 700,000 years). The Proposed Project is also 5.75 miles northeast of the Youngs Creek fault, which is in the Foothills Fault System. This fault is considered a Quaternary fault. There are also three unnamed Pre-Quaternary Faults that surround the Proposed ProjectProject Area Site, the closest being 0.3 mile away (DOC 2015).

Alquist-Priolo Fault Zones

An active earthquake fault, per California's Alquist-Priolo Act, is one that has ruptured within the Holocene Epoch (approximately 11,000 years). Based on this criterion, the California Geological Survey (CGS) identifies Earthquake Fault Zones (CGS 2016). The California legislature passed the Alquist-Priolo Special Studies Act 1972 to address seismic hazards associated with faults and to establish criteria for developments for areas with identified seismic hazard zones. CGS evaluates faults with available geologic and seismologic data and determines if a fault should be zoned as active, potentially active, or inactive. If CGS determines a fault to be active, then it is typically incorporated into a Special Studies Zone in accordance with the Alquist-Priolo Earthquake Hazard Act. Alquist-Priolo Special Study Zones are usually one-quarter mile or less in width and require site-specific evaluation of fault location and require a structure setback if the fault is found traversing a Project Area. The Proposed Project is not within an Alquist-Priolo Special Study Zone. The nearest Alquist-Priolo fault zone, the Greenville Fault, is located approximately 60 miles southwest of the City (DOC 2024c).

Lateral Spreading

Lateral spreading typically results when ground shaking moves soil toward an area where the soil integrity is weak or unsupported, and it typically occurs on the surface of a slope, although it does not occur strictly on steep slopes. Oftentimes, lateral spreading is directly associated with areas of liquefaction. Soil data from the NRCS Web Soil Survey (NRCS 2024a, 2024b) suggests that the potential for lateral spreading is low within the Project Area.

Liquefaction

Liquefaction, which is primarily associated with loose, saturated materials, is most common in areas of sand and silt or on reclaimed lands. Cohesion between the loose materials that comprise the soil may be jeopardized during seismic events, and the ground will take on liquid properties. Thus, specific soil characteristics and seismic shaking must exist for liquefaction to be possible.

Liquefaction typically requires a significant sudden decrease of shearing resistance in cohesionless soils and a sudden increase in water pressure, which is typically associated with an earthquake of high magnitude. The potential for liquefaction is highest when groundwater levels are high, and loose, fine, sandy soils occur at depths of less than 50 feet. Soil data from the NRCS Web Soil Survey (NRCS 2024b) suggests that the potential for liquefaction is low within the Project Area.

Earthquake Induced Landslides

Earthquake-Induced Landslide Zone Areas are areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in PRC Section 2693(c) would be required. The California Geological Survey Landslides Maps have not mapped any landslide areas in the Planning Area or its vicinity. The potential for landslides within the Planning Area is generally low; however, the bedrock in Amador County and the City of Jackson has undergone fracturing, tilting, faulting, and weathering creating areas of instability where there are steep slopes or open cuts (City 2023a).

Naturally Occurring Asbestos

The term "asbestos" is used to describe a variety of fibrous minerals that, when airborne, can result in serious human health effects. Naturally occurring asbestos is commonly associated with ultramafic rocks and serpentinite. Ultramafic rocks, such as dunite, peridotite, and pyroxenite are igneous rocks comprised largely of iron-magnesium minerals. As they are intrusive in nature, these rocks often undergo metamorphosis, prior to their being exposed on the Earth's surface. The metamorphic rock serpentinite is a common product of the alteration process (USGS 2011).

The presence of ultramafic rocks within the region indicates the possibility of naturally occurring asbestos materials. Ultramafic rocks that are associated with shear zones are considerably denser than other rock formations in the area and many are serpentinized. Minerals known to contain asbestos-quality (i.e., asbestiform) fibers include ultramafic minerals of the amphibole group and phyllosilicates. Fibrous varieties of the amphibole group include tremolite, actinolite, amosite, crocidolite and anthophyllite. Serpentine is a phyllosilicate that occurs in a plately variety (antigorite) and an asbestiform variety (chrysotile) and is the most common variety of commercially mined asbestos. Amphibole asbestos, when disturbed emits needle-like fibers that can be inhaled into the lungs. Amphibole asbestos is more friable than chrysotile, which requires considerable flexing to break. Both forms of asbestos are found in serpentine commonly found in the Sierra Nevada foothills and in the areas surrounding the City. When serpentine rock is disturbed by grading and construction activities, asbestos fibers may be released. Though Amador County and the surrounding region do possess deposits of these ultramafic materials, the nearest deposits of naturally occurring asbestos are identified approximately 2 miles to the west of the Proposed Project.

4.7.1.3 Soils

ECORP staff obtained soil survey mapping for the Project Area from the NRCS Web Soil Survey accessed on January 9, 2024 (Appendix B). Table 4.7-1 provides an overview of the soil series mapped within the BSA and key features of the soil series, such as hydric rating or presence of serpentine or gabbroic soil material. This also can be seen in Figure 4.7-1.

Table 4.7-1. Soil Series Mapped within the Project Area*			
Map Unit Symbol	**Map Unit Name**	**Rating**	**Hydric Components and Landforms†**
AsD	Auburn very rocky silt loam, 3 to 31 percent slopes	Amphibolite schist	None
ExE	Exchequer and Auburn very rocky loams, 31 to 51 percent slopes	Residuum weathered from metasedimentary rock and/or residuum	None
SyD	Supan very cobbly loam, moderately deep, 3 to 31 percent slopes	Volcanic residuum weathered from conglomerate	None
W	Water	–	–

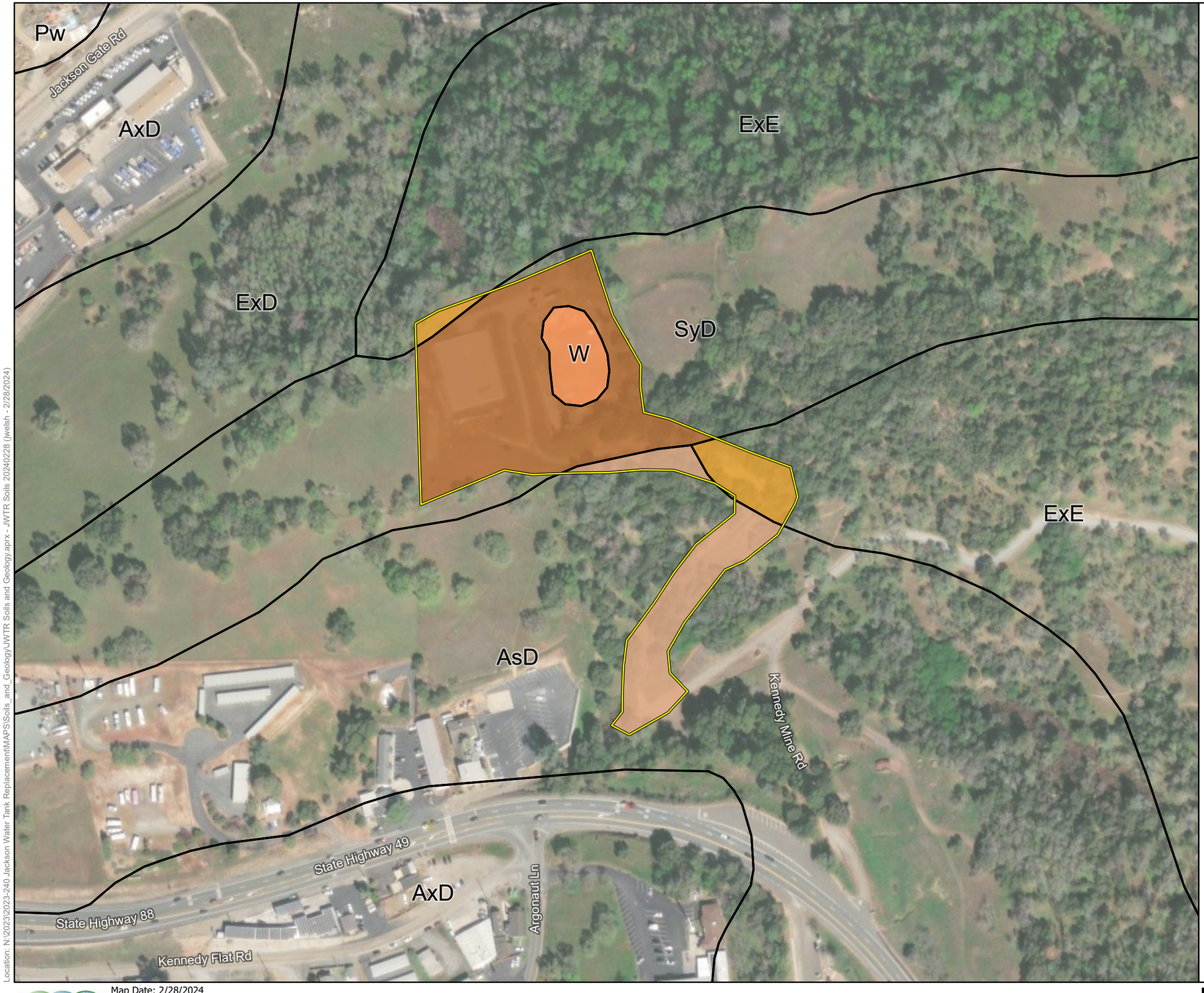
Notes: No soil units derived from serpentinite or gabbroic parent materials are known to occur within the Proposed Project Area or its immediate vicinity (ECORP Consulting, Inc. 2024b).

Source: Natural Resources Conservation Service †2024a, *2024b

4.7.1.4 Paleontological Resources

Paleontological resources, or fossils, are the evidence of once-living organisms preserved in the rock record. They include both fossilized remains of ancient plants and animals and the traces thereof) e.g., trackways, imprints, burrows, etc.). Paleontological resources occur within bedrock geologic deposits that may or may not underly the soil layer and are almost exclusively preserved in sedimentary rocks; however, in rare cases, fossils can also be preserved in volcanic rocks and low-grade metamorphic rocks under certain conditions. The Society of Vertebrate Paleontology has defined fossils as being remains or traces of plants and animals that are greater than 5,000 years old (i.e., older than middle Holocene in age).

According to a records search of the University of California Museum of Paleontology, 61 fossils have been found and recorded within Amador County.



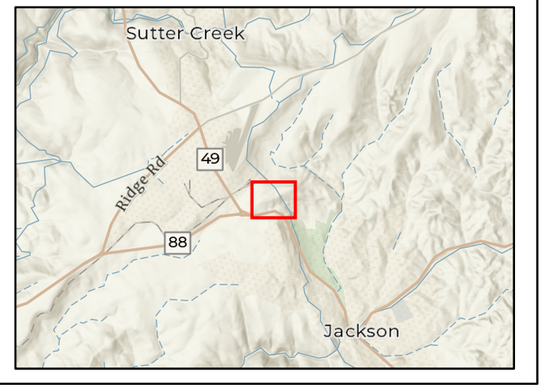
Map Contents

Biological Study Area - 5.51 ac.

NRCS Soil Types Within Biological Study Area

- AsD - Auburn very rocky silt loam, 3 to 31 percent slopes
- ExE - Exchequer and Auburn very rocky loams, 31 to 51 percent slopes
- SyD - Supan very cobbly loam, moderately deep, 3 to 31 percent slopes
- W - Water

Sources: Amador County, ESRI, Maxar (2022), USDA NRCS (2019)



Location: N:\2023\2023-240 Jackson Water Tank Replacement\MAPS\Soils_and_Geology\JWTR Soils and Geology.aprx - JWTR Soils 20240228 (jwelsh - 2/28/2024)

Map Date: 2/28/2024

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 100 200

Figure 4.7-1. Natural Resources Conservation Service Soils
2023-240 Jackson Water Tank Replacement

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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?	☐	☐	☒	☐

Less Than Significant Impact.

i) There are no known active or potentially active faults, or Alquist-Priolo Earthquake Fault Zones, located within the Proposed Project Area. However, there are numerous faults located in the region and the Proposed Project Area could experience considerable ground shaking generated by faults outside the City.

The Proposed Project would be required to comply with all provisions of the California Building Code which requires development projects to: perform geotechnical investigations in accordance with State law, engineer improvements to address potential seismic and ground failure issues and use earthquake-resistant construction techniques to address potential earthquake loads when constructing buildings and improvements.

The Proposed Project would construct two water storage tanks approximately in the footprint of the existing Martell Reservoir/Clearwell, which will be demolished to erect the tanks. This improvement is designed to help meet demand of existing residents and improve fire flow and would not increase the system's capability to serve future development. As such, the Proposed Project would not directly or indirectly result in the construction of occupied structures. For this reason, and because Amador County is located within an area with relatively low seismic activity, the Proposed Project is not anticipated to have significant effects that could result in risk of loss, injury, or death due to fault rupture or strong seismic ground shaking. Any impacts would be less than significant, and no mitigation measures are required.

ii) See the above discussion i). Any impacts that would result in ground shaking would be less than significant and no mitigation measures are required.

iii) Liquefaction is a phenomenon whereby granular material (i.e., silt and sand) is transformed from a stable state into a freely moving liquid-like state as a result of an increase in pore-water (water between the grains) pressure due to an earthquake. The Project AreaProject Area is underlain by soils with a low depth to rock (generally less than 40 inches) and, therefore, is not at high risk for liquefaction. In addition, the Proposed Project would comply with applicable State seismic safety standards to minimize risk from liquefaction. Lastly, as described in Items i and ii above, the Project would not directly or indirectly result in the construction of occupied structures. For these reasons, and because Amador County is located within an area with relatively low seismic activity, the Proposed Project will have no adverse effects that could result in risk of loss, injury, or death due to liquefaction that may occur during a seismic event. Any impacts would be less than significant.

iv) Landslides refer to a wide variety of processes that result in the perceptible downward and outward movement of soil, rock, and vegetation under gravitational influence.

Construction of the new tanks would require excavation activities within a relatively flat area around the existing Martell Reservoir/Clearwell and would have little possibility to result in exposure of the site to increased incidence of erosion and site instability due to landslides. BMPs would be included as part of the SWPPP prepared for the Proposed Project and would be implemented to manage erosion and the loss of topsoil during construction-related activities (see Section 4.10.3). With the implementation of the SWPPP, soils erosion during construction, Project staging and the construction of related facilities would be minimized. With limited erosion anticipated from the Project AreaProject Area due to the relatively flat nature of the site, the potential for Project-induced landslides is considered less than significant. No mitigation is required.

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 mentioned above, there is three different types of soil located within the Project Area: AsD – Auburn very rocky silt loam, 3 to 31 percent slopes; ExE– Exchequer and Auburn very rocky loams, 31 to 51 percent slopes; and SyD – Supan very cobbly loam, moderately deep, 3 to 31 percent slopes. During construction, trenching and fill on the Project AreaProject Area could create locally unstable soil conditions that could result in a localized increase in wind- or water- related soil erosion.

The Amador County General Plan Update illustrates erosion hazards that occur within Amador County. According to the illustration, erosion potential for soil types on the Project AreaProject Area is considered moderate to severe (Amador County 2016a).

All excavation activities, grading, and construction would be conducted according to standard construction practices and building codes. A National Pollutant Discharge Elimination System (NPDES) permit would be required for construction activities from the RWQCB, requiring a SWPPP. Implementation of the SWPPP, including the use of stormwater quality BMPs, would prevent erosion of soil in storm water runoff during Project construction (See Section 4.10). Once construction is completed, soils would be stabilized and monitored according to the SWPPP until a Notice of Termination for the NPDES construction permit is filed with the RWQCB. Consequently, the Proposed Project would not result in substantial erosion and/or unstable earth conditions from Project construction or operation. This is applicable to all proposed phases of construction. For these reasons, erosion-related impacts are considered to be less than significant. No mitigation is required.

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.

For reasons discussed in items a) and b) above, adequate measures would be employed during tank installation, construction staging and the construction of related facilities to control and limit on and off-site soil erosion. With the limited potential for on- and off-site erosion and low depth to bedrock at the Project AreaProject Area, the potential for Project-induced landslides, lateral spreading, subsidence, liquefaction, and collapse is minimal. The impact, therefore, is considered less than significant. No mitigation is required.

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.

"Shrink-swell potential" is the potential for volume changes in a soil with a loss or gain in moisture. If the shrink-swell potential is rated moderate to high, damage to buildings, roads, and other structures can occur. These limitations can vary substantially over short distances. Some clayey soils tend to expand when wet and contract upon drying, which can cause structural damage if not accounted for in construction designs. Soils on the Project AreaProject Area are generally cobbly and stony loams with low

shrink-swell potential and do not pose a hazard of this kind. Consequently, the potential effects due to shrink-swell characteristics of the soil within the Project Area is low. For these reasons, the impact is less than significant. No mitigation is required.

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?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project would not directly or indirectly result in the installation of any new septic systems or alternative wastewater disposal systems. No mitigation required.

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 Impact With Mitigation Incorporated.

Ground disturbance will take place during the construction of the new tanks and concrete pads. Although the proposed excavation depth would be limited, excavations may result in penetration of the underlying metavolcanic rock. As noted above, paleontological resources occur within bedrock geologic deposits that may or may not underly the soil layer and are almost exclusively preserved in sedimentary rocks; however, in rare cases, fossils can also be preserved in volcanic rocks and low-grade metamorphic rocks under certain conditions.

Therefore, construction of the Proposed Project may damage or destroy unknown paleontological resources. This potential impact can be mitigated to a level that is less than significant with the implementation of Mitigation Measure GEO-1.

4.7.3 Mitigation Measures

PALEO-1: **Discovery of Unknown Resources.** If any paleontological resources (i.e., fossils) are found during Project construction, construction shall be halted immediately in the subject area, and the area shall be isolated using orange or yellow fencing until the City and Amador County are notified and the area is cleared for future work. A qualified paleontologist shall be retained to evaluate the find and recommend appropriate treatment of the inadvertently discovered paleontological resources. If the City resumes work in a location where

paleontological remains have been discovered and cleared, the City will have a paleontologist onsite to confirm that no additional paleontological resources are in the area.

4.8 Greenhouse Gas Emissions

4.8.1 Environmental Setting

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 CO_2. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e). Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

4.8.2 Regulatory Setting

4.8.2.1 Thresholds of Significance

The significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines § 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 local air quality agency regulating Amador County is the AAD, the regional air pollution control officer for the basin. The AAD has not established GHG thresholds for land use projects in Amador County. Therefore, Project emissions are compared to the thresholds issued by the California Air Pollution Control Officers Association (CAPCOA), which is an association of the air pollution control officers from all 35 local air quality agencies throughout California, including the AAD. CAPCOA recommends a significance threshold of 900 metric tons of CO_2e annually. This threshold is based on a capture rate of 90 percent of land use development projects, which in turn translates into a 90 percent capture rate of all GHG emissions. The 900 metric ton threshold is considered by CAPCOA to be low enough to capture a substantial fraction of future projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small

projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions.

4.8.3 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.

GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects contribute substantially to the phenomenon of global climate change and its associated environmental impacts and as such is addressed only as a cumulative impact.

4.8.3.1 Construction-Generated Greenhouse Gas Emissions

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., backhoe, 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

Description	CO_2e Emissions (metric tons per year)
Construction Year One	148
Construction Year Two	86
CAPCOA Significance Threshold	*900*
Exceed Significance Threshold?	***No***

Notes: CAPCOA = California Air Pollution Control Officers Association; CO_2e = carbon dioxide equivalents

Source: California Emissions Estimator Model, Version 2022.1.1. Refer to Appendix A for Model Data Outputs

As shown in Table 4.8-1, Project construction would result in the generation of a total of approximately 234 metric tons of CO_2e over the course of construction, which is below the CAPCOA significance threshold. Once construction is complete, the generation of these GHG emissions would cease.

Furthermore, GHG emissions generated by the construction sector have been declining in recent years. For instance, construction equipment engine efficiency has continued to improve year after year. The first

federal standards (Tier 1) for new off-road diesel engines were adopted in 1994 for engines over 50 horsepower and were phased in from 1996 to 2000. In 1996, a Statement of Principles pertaining to off-road diesel engines was signed between the USEPA, CARB, and engine makers (including Caterpillar, Cummins, Deere, Detroit Diesel, Deutz, Isuzu, Komatsu, Kubota, Mitsubishi, Navistar, New Holland, Wis-Con, and Yanmar). On August 27, 1998, the USEPA signed the final rule reflecting the provisions of the Statement of Principles. The 1998 regulation introduced Tier 1 standards for equipment under 50 hp and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. As a result, all off-road, diesel-fueled construction equipment manufactured in 2006 or later has been manufactured to Tier 3 standards. Tier 3 engine standards reduce precursor and subset GHG emissions such as nitrogen oxide by as much as 60 percent. On May 11, 2004, the USEPA signed the final rule introducing Tier 4 emission standards, which were phased in over the period of 2008-2015. The Tier 4 standards require that emissions of nitrogen oxide be further reduced by about 90 percent. All off-road, diesel-fueled construction equipment manufactured in 2015 or later will be manufactured to Tier 4 standards.

4.8.3.2 Operational Greenhouse Gas Emissions

The Proposed Project would replace the Martell Reservoir/Clearwell with two storage tanks which would be located approximately in the footprint of the current reservoir; install new inlet and outlet piping to and from the new tanks and connect to existing fill and distribution pipes; and build a new building west of the storage tanks for water system operations.

Table 4.8-2 illustrates the specific GHG emissions that would result from operation of the Project.

Table 4.8-2. Operation-Related Greenhouse Gas Emissions

Description	CO_2e Emissions (metric tons per year)
Operations	29
CAPCOA Significance Threshold	*900*
Exceed Significance Threshold?	***No***

Note: CAPCOA = California Air Pollution Control Officers Association; CO_2e = carbon dioxide equivalents

Sources: California Emissions Estimator Model, Version 2022.1.1. Refer to Appendix A for Model Data Outputs

As shown in Table 4.8-2, Project operation would result in the generation of a total of approximately 29 metric tons per year of CO_2e during the operational phase, which is below the CAPCOA significance threshold. While it is anticipated that the Project would require intermittent maintenance, such maintenance would be minimal requiring a negligible number of traffic trips on an annual basis and would be similar to those associated with the existing Martell Reservoir/Clearwell. For these reasons, the Proposed Project would result in a less than significant impact related to GHG emissions. No mitigation is required.

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 Amador County EAP serves to provide goals, strategies, and actions to reduce Amador County's energy consumption and achieve greater energy efficiency (Amador County 2015). The Proposed Project would not conflict with any of the plans and policies set out by the Amador County EAP or impede progress towards the emission targets. As the AAD has not established GHG thresholds for land use projects in Amador County, Project emissions are compared to the CAPCOA thresholds as shown in Tables 4.8-1 and 4.8-2. The Proposed Project would not exceed CAPCOA thresholds. The significance thresholds established by CAPCOA are prepared to complying with statewide, as well as local, GHG-reduction efforts. Therefore, the Project would not conflict with any adopted plans, policies, or regulations adopted for the purpose of reducing GHG emissions.

4.8.4 Mitigation Measures

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

4.9 Hazards and Hazardous Materials

4.9.1 Environmental Setting

4.9.1.1 Hazardous Materials

A hazardous material is a substance or combination of substances which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating illness. Or hazardous material could pose a substantial present or potential hazard to human health and safety, or the environment when improperly treated, stored, transported, or disposed of. Hazardous materials are mainly present because of industries involving chemical byproducts from manufacturing, petrochemicals, and hazardous building materials.

4.9.1.2 Hazardous Waste

Hazardous waste is the subset of hazardous materials that has been abandoned, discarded, or recycled and is not properly contained, including soil or groundwater that is contaminated with concentrations of chemicals, infectious agents, or toxic elements sufficiently high to increase human mortality or to destroy the ecological environment. If a hazardous material is spilled and cannot be effectively picked up and used as a product, it is considered to be a hazardous waste. If a hazardous material site is unused, and it is

obvious there is no realist intent to use the material, it is also considered to be a hazardous waste. Examples of hazardous materials include flammable and combustible materials, corrosive explosives, oxidizes, poisons, materials that react violently with water, radioactive materials, and chemicals.

4.9.1.3 Transportation of Hazardous Materials

The transportation of hazardous materials within California is subject to various Federal, State, and local regulations. It is illegal to transport explosives or inhalation hazards on any public highway not designated for that purpose, unless the use of the highway is required to permit delivery, or the loading of such materials (California Vehicle Code §§ 31602(b), 32104(a)). The California Highway Patrol designates through routes to be used for the transportation of hazardous materials. Transportation of hazardous materials is restricted to these routes except in cases where additional travel is required from that route to deliver or receive hazardous materials to and from users.

4.9.1.4 Hazardous Sites

Envirostor Data Management System and Cortese List

The California Department of Toxic Substances Control (DTSC) maintains the Envirostor Data Management System, which provides information on hazardous waste facilities (both permitted and corrective action) as well as any available site cleanup information. This site cleanup information includes: Federal Superfund Sites, State Response Sites, Voluntary Cleanup Sites, School Cleanup Sites, Corrective Action Sites, Tiered Permit Sites, and Evaluation/Investigation Sites. The hazardous waste facilities include permitted-Operating, Post-Closure Permitted, and Historical Non-Operating (DTSC 2024).

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies, and developers to comply with the CEQA requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop at least annually an updated Cortese List. The DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

The Proposed Project AreaProject Area is not listed by the DTSC as a hazardous substances site or within the Cortese List. The closest site is approximately 0.5 miles west of the Project Area at Highway 49 and Highway 88 Junction in Martell CA, 95654. The potential contaminants of the site are copper compounds, dioxin, polychlorinated biphenyls, and motor oil. The site was backlogged as of May 30, 2000.

GeoTracker

GeoTracker is the California Water Resources Control Board's data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense, Site Cleanup Program) as well as permitted facilities such as operating underground storage tanks and land disposal sites.

The Proposed Project is not listed on the SWRCB GeoTracker website but is within a half mile of five leaking underground storage tank cleanup sites. The sites and their statuses can be found in Table 4.9.1.

Table 4.9.1. SWRCB GeoTracker LUST Cleanup Sites within 0.5 Mile of the Project Area

Location Name	Address	Potential Contaminants of Concern	Status	Date
Georgia-Pac Corp	State Route 49 Martell, CA 95654	Gasoline	Case Closed	9/20/1994
Sierra Pacific Martell Division	State Route 49 and Ridge Road, Martell, CA 95654	Gasoline	Case Closed	5/6/2005
PG&E Jackson Service Center	12626 Jackson Gate Road Jackson, CA 95642	Arsenic, Diesel, Lead	Case Closed	6/2/2022
Jon's Pit Stop	10773 State Route 49 Martell, CA 95654	Benzene, Gasoline, Other Fuel Oxygenates	Open Site Assessment	3/18/2019
Jon's Pit Stop #2	10773 State Route 49 Martell, CA 95654	Gasoline	Case Closed	9/4/1997

Note: LUST = Leaking Underground Storage Tank; PG&E = Pacific Gas and Electric Company; SWRCB = State Water Resources Control Board

Source: SWRCB 2024

Fire Hazard Severity Zones

The state has charged the California Department of Forestry and Fire Protection (CAL FIRE) with the identification of Fire Hazard Severity Zones (FHSZs) within State Responsibility Areas (SRAs). In addition, CAL FIRE must recommend Very High Fire Hazard Severity Zones (VHFHSZs) identified within any Local Responsibility Areas (CAL FIRE 2008). The FHSZ maps are used by the State Fire Marshall as a basis for the adoption of applicable building code standards.

The Proposed Project is outside of the City limits and is within the City's SOI. It is within a high FHSZ within an SRA (CAL FIRE 2023).

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 Proposed Project consists of the replacement of an existing water storage tank to increase the flow and reliability of the City distribution system. The Proposed Project is located immediately adjacent to the existing Martell Reservoir/Clearwell surrounded by urban uses amidst a mixed conifer forest setting.

The Proposed Project is anticipated to require the use of some hazardous materials such as diesel fuel during construction. The transport of hazardous materials by truck is regulated by federal safety standards under the jurisdiction of the U.S. Department of Transportation. The use of such materials would not create a significant hazard to the public and impacts would be less than significant. No mitigation is required.

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.

On-site storage and/or use of large quantities of hazardous materials capable of affecting soil and groundwater are not proposed. The potential risk associated with accidental discharge associated with use and storage of equipment-related hazardous materials during tank replacement is considered low because the handling of any such materials would be addressed through the implementation of BMPs associated with the SWPPP required for the Project. The Proposed Project is an infrastructure project that would not require the long-term use or storage of hazardous substances; therefore, no potential for the release of hazardous materials into the environment is expected. A less than significant impact would occur and no mitigation is required.

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?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project involves demolition of the existing Martell Reservoir/Clearwell and replacing it with two new water storage tanks directly south of the existing reservoir to increase storage and the associated flow and reliability of the City distribution system. The closest school to the Proposed Project is the

Argonaut High School, located at 501 Argonaut Lane, which is approximately 0.25 miles away from the Project Area. The use of hazardous materials would be limited during construction activities and would include traditional materials typically associated with construction projects such as gasoline, diesel, oil, paint, resin and epoxy concrete. All hazardous materials, substances, or waste would be handled consistent with federal, state, and local regulations. Any impacts would be less than significant.

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. A search of the of the DTSC and SWRCB lists identified that the Proposed Project Area is not located on a hazardous material site. The DTSC and SWRCB showed that there are sites within 0.5 miles of the Project AreaProject Area. Given that there are no existing hazardous waste sites within the Project Area area, the Proposed Project will have no impact in this area, and no mitigation is required.

	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?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project is located approximately 0.24 miles away from Westover Airport in Martell. According to the Amador County Westover Field Airport Land Use Compatibility Plan (ALUCP), the Proposed Project is in Review Area 1.

Review Area 1 includes the areas covered by the airport noise contours, safety zones, airspace protection surfaces, and overflight notification areas, which are subject to applicable compatibility criteria and policies in the ALUCP. Projects located in one area but not another are only subject to the policies of the factor area(s) in which they are located (Amador County 2018). Additionally, the Project Area is located

within the 55 Community Noise Equivalent Level (CNEL) contour, which includes commercial and industrial uses as normally acceptable (Amador County 2018).

As mentioned above, the Proposed Project consists of replacing Martell Reservoir/Clearwell with two new tanks to increase storage and the associated flow and reliability of the City distribution system. Therefore, any impacts would be less than significant, and no mitigation is required.

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.

Amador County adopted a Local Hazard Mitigation Plan in 2020 which is considered the primary document when determining how disasters will be managed by Amador County. The Proposed Project would benefit the area by providing better fire protection and would not interfere with the adopted Amador County Local Hazard Mitigation Plan (Amador County 2020a), which focuses on strategies that will enable Amador County to become less vulnerable to future disaster losses (Amador County 2020a). Traffic disruption will not occur during Project construction.

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?	☐	☐	☒	☐

Less Than Significant Impact.

The Project AreaProject Area is located in a high FHSZ in an SRA. However, the Project is located on property that is owned and maintained by the City. The Project AreaProject Area is accessible via a City-maintained access road that passes through the Kennedy Mine property, which borders the Project AreaProject Area to the south and east. The Project AreaProject Area contains active and inactive water system infrastructure. Implementation of the Proposed Project would not impair or conflict with an adopted emergency response or evacuation plan for areas in a VHFHSZ. Any impacts would be less than significant.

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

The information regarding aquatic resources within the Project AreaProject Area is based on the analysis and recommendations presented in the BRA prepared for the Proposed Project (ECORP 2024b; Appendix B).

4.10.1.1 Regional Hydrology

The City is located within the Jackson Creek and Upper Mokelumne River Watersheds. Amador County is situated in a region that dramatically drops in elevation from the Sierra Nevada Mountains in the east to the central and western portions, where excess rain or snow can contribute to downstream flooding. The Consumnes and Mokelumne Rivers, which border the City to the north and south, respectively, are both tributary to the San Joaquin River. The North Fork Mokelumne River originates in the Sierra Nevada and flows west to its confluence with the San Joaquin River in the Central Valley. With a watershed encompassing approximately 660 square miles, the annual average runoff of the Mokelumne River at Pardee Reservoir is 753,000 acre-feet, with the majority of flow derived from snowmelt. Annual precipitation and streamflow in the Mokelumne River are extremely variable both month to month and year to year. Stream flow is modified by upstream diversions and regulated by reservoir storage operations for hydroelectric power generation and water supply. The Mokelumne River watershed is typically subdivided into the Upper Mokelumne River Watershed, extending from its upper reaches in eastern Alpine County to the southwestern side of Pardee Reservoir, and the Lower Mokelumne River watershed, extending from its shared boundary with the upper watershed, southwest through the river's confluence with the Cosumnes River.

The Cosumnes River forms the northern boundary of the western portion of Amador County. The South and Middle Forks of the River converge into the main stem of the Consumnes River near State Highway 49. The Consumnes passes through southern Sacramento County in the Sacramento Valley, joining with the Mokelumne River in San Joaquin County and emptying into the Sacramento-San Joaquin Delta.

Watersheds

The Project Area is located in the easterly portion of the San Joaquin River hydrologic region. Within the San Joaquin River Hydrological Region, the Proposed Project is located in the Jackson Creek watershed. The Jackson Creek watershed encompasses approximately 60 square miles. This watershed includes the sub-basins of the North Fork Jackson Creek, Middle Fork Jackson Creek, and South Fork Jackson Creek upstream of their confluences near the center of the City.

Groundwater

Within the foothill region of the Sierra Nevada Mountains, groundwater resources are highly variable with respect to quantity, depth, dependability, and quality. Annual rainfall for the area is approximately 30 inches and soils are relatively thin with shallow underlying bedrock. Since deep alluvium is absent, groundwater resources reside mostly in fractures within underlying bedrock.

Per the California Department of Water Resources Bulletin No 118, titled "California's Ground Water," the Planning Area located within the Upper Mokelumne unit does not contain a principal aquifer and is not contained within the boundaries of a defined groundwater basin (California Department of Water Resources [DWR] 2020). This estimate is supported by the existing climate, geology, and soils located on and in the immediate region surrounding the property.

4.10.1.2 Regional Water Quality

Water quality in the City and its SOI is governed by the Central Valley RWQCB, which set water quality standards in their Water Quality Control Plan for the respective basins (Basin Plans). The Basin Plans identify beneficial uses for surface water and ground water and establish water quality objectives to attain those beneficial uses.

4.10.1.3 Site Hydrology and Onsite Drainage

As described in Section 2.0 of this IS/MND, the Proposed Project would replace existing Martell Reservoir/Clearwell with two new storage tanks to help storage capacity for existing residents and improve fire flow for the City system. The proposed location for the new tanks on the Project Area is approximately within the footprint of the existing reservoir. New inlet and outlet piping will be installed to and from the new tanks and connect to existing fill and distribution pipes. All equipment from the decommissioned water treatment plant will be demolished or salvaged as part of the Project. The existing building was part of the water treatment plant and repurposed into a site office; it will be protected in place and used for non-water system City operations. A new building will be constructed west of the new tanks for water system operations. The existing reservoir will be demolished to construct the new storage tanks. Construction of the new tanks requires demolition of the existing reservoir prior to tank construction. To maintain water storage capacity during construction, a temporary bolted steel water storage tank will be erected on site for the duration of construction of the new tanks. The bolted steel tank will have approximately 1.1 million gallons of water storage and be 105 feet diameter and 28 feet tall. The temporary tank will be constructed on a graded pad south of the existing reservoir. The tank will be demolished once the new tanks are online, but the graded pad will remain for future use.

As mentioned in Section 4.4.1.3 of this IS/MND, a preliminary aquatic resources assessment was conducted to identify potential Waters of the U.S./State within the BSA concurrent with the reconnaissance-level field assessment. The aquatic features identified onsite include a seasonal wetland and an ephemeral drainage (Figure 4.4-2). The seasonal wetland onsite is located within the southern end of the Martell reservoir/Clearwell. The ephemeral drainage in the Project Area originates from a culvert crossing under the access road and was largely unvegetated. The OHWM was identified based on a change in surface relief and vegetation cover.

4.10.2 Regulatory Setting

4.10.2.1 Federal Plans, Policies, Regulations, and Laws

Clean Water Act

The CWA of 1972 is the primary federal law that governs and authorizes water quality control activities by the USEPA, the lead federal agency responsible for water quality management. By establishing water quality standards, issuing permits, monitoring discharges, and managing polluted runoff, the CWA seeks to restore and maintain the chemical, physical, and biological integrity of surface waters to support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water." The USEPA is the federal agency with primary authority for implementing regulations adopted pursuant to CWA and has delegated the state of California as the authority to implement and oversee most of the programs authorized or adopted for CWA compliance through the Porter-Cologne Water Quality Control Act of 1969 described below.

Water Quality Criteria and Standards

The USEPA has published water quality regulations under Volume 40 of the Code of Federal regulations (40 CFR). Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question and (2) criteria that protect the designated uses. Section 304(a) requires the USEPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. Section 303(d) mandates the creation of a list of waterbodies and associated pollutants that exceed water quality criteria.

National Pollutant Discharge Elimination System Permit Program

The NPDES permit program was established to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges including point source municipal waste discharges and nonpoint source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

In November 1990, the USEPA published regulations establishing NPDES permit requirements for municipal and industrial stormwater discharges. Phase I of the permitting program applied to municipal discharges of stormwater in urban areas where the population exceeded 100,000 persons. Amador County is subject to the requirements of Phase II of the NPDES stormwater permit regulations, which became effective in March 2003 and required NPDES permits be issued for construction activity for projects that disturb between 1 and 5 acres. Phase II of the municipal permit system (i.e., known as the NPDES General Permit for Small municipal separate storm sewer system [MS4s]) required small municipality areas of less

than 100,000 persons to develop stormwater management programs. The RWQCBs in California are responsible for implementing the NPDES permit system (refer to additional details in the section "State Plans, Policies, Regulations, and Laws" below).

Section 401 Water Quality Certification or Waiver

Under Section 401 of the CWA, an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) must first obtain a certificate from the appropriate state agency stating that the fill is consistent with the state's water quality standards and criteria. In California, the authority to either grant water quality certification or waive the requirements is delegated by the SWRCB to the nine regional boards.

U.S. Army Corps of Engineers

The USACE is responsible for issuing permits for discharge of dredged or fill material into waters of the United States. These permits are required under Sections 401 and 404 of the CWA. Water supply projects that involve instream construction, such as dams or other types of diversion structures, trigger the need for these permits and related environmental reviews by the USACE. The USACE is also responsible for flood control planning and assisting state and local agencies with the design and funding of local flood control projects.

4.10.2.2 State Plans, Policies, Regulations, and Laws

State Water Resources Control Board

In California, the SWRCB has broad authority over water-quality control issues for the state. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the state by the federal government under the CWA. Other state agencies with jurisdiction over water quality regulation in California include California Department of Public Health (for drinking-water regulations), the California Department of Pesticide Regulation, CDFW, and the Office of Environmental Health and Hazard Assessment. Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. The regional boards are required to formulate and adopt Basin Plans for all areas in the region and establish water quality objectives in the plans. California water quality objectives (or "criteria" under the CWA) are found in the Basin Plans adopted by the State Water Resources Control Board and each of the nine RWQCBs. The Central Valley RWQCB is responsible for Amador County.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act is California's statutory authority for the protection of water quality. Under the act, the state must adopt water quality policies, plans, and objectives that protect the state's waters for the use and enjoyment of the people. The act sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update Basin Plans. Basin Plans are the regional water quality control plans required by both the CWA and Porter-Cologne Act in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The act also requires waste dischargers to notify the RWQCBs of their activities through the filing of Reports of Waste

Discharge (RWDs) and authorizes the SWRCB and RWQCBs to issue and enforce WDRs, NPDES permits, Section 401 water quality certifications, or other approvals. The RWQCBs also have authority to issue waivers to RWDs and/or WDRs for broad categories of "low threat" discharge activities that have minimal potential for adverse water quality effects when implemented according to prescribed terms and conditions.

California General Construction Activity Storm Water Permit

The USEPA and the SWRCB regulate point sources of pollution, such as construction sites, that have the potential to discharge pollutants into the waters of the United States. This is accomplished through the issuance of NPDES storm water discharge permits. NPDES Phase II regulations took effect in March 2003, requiring that applicants proposing construction activities involving disturbance of from one to five acres, and associated storm water discharge, must obtain an NPDES permit from the State. Construction activities larger than five acres were already regulated, under NPDES Phase I (1990). (Phase II also required that small [population of less than 100,000] MS4 operators obtain a NPDES permit.) Landowners are responsible for applying for coverage under the permit and complying with permit requirements but may delegate specific duties to developers and contractors by mutual consent.

Permit applicants are required to prepare, and retain at the construction site, a SWPPP, which describes the site, erosion and sediment controls, means of waste disposal, implementation of local plans, control of post-construction sediment and erosion control measures and maintenance responsibilities, and non-storm water management control. Dischargers are also required to inspect construction sites before and after storms to identify storm water discharge from construction activity, and to identify and implement controls where necessary.

4.10.2.3 Regional

Integrated Regional Water Management Plan

As a result of the passage in 2002 of Proposition 50, the Water Security, Clean Drinking Water, Coastal and Beach Protection Act, Integrated Regional Water Management Plans (IRWMPs) were authorized for regional management of water resources in at least four main areas: water supply, groundwater management, ecosystem restoration, and water quality. Projects and programs included in the IRWMP are designed to integrate multiple strategies and projects in order to provide multiple benefits both locally and regionally. An Integrated Regional Water Management region encompassing Amador County was formed in 2006 by various cooperating agencies including: Amador Water Agency (AWA), Calaveras County Water District, Amador County, City of Jackson, City of Sutter Creek, City of Plymouth, Amador Regional Sanitation Authority (ARSA), and East Bay Municipal Utility District. These agencies entered into a Memorandum of Understanding for the purpose of coordinating water resources planning and implementation activities associated with the IRWMP (Amador County 2016b).

4.10.2.4 Local

Amador County Code of Ordinances: 1690 – Erosion Control

The Amador County General Plan does not include relevant hydrology and water quality policies that are directly applicable to the Proposed Project. Amador County outlines rules and recommendations to minimize potential erosion hazards associated with grading construction activities, as described in the Amador County Guidelines for Grading and Erosion Control, Pursuant to Ordinance No. 1581 and in the Amador County Code of Ordinances, Chapter 15.40 - Ordinance No. 1619: Erosion Control.

Amador County Code of Ordinances: 15.16.170 – Standards for Utilities

Ordinance 15.16.170 of the Amador County Code states the following:

A. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate:

   1. infiltration of floodwaters into the system; and

   2. discharge from systems into floodwaters.

B. On-site waste disposal systems shall be located to avoid impairment to them, or contamination from them during flooding. (Ord. 1503(part), 2000).

4.10.3 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.

4.10.3.1 Project Operation

The Proposed Project would replace an existing Martell Reservoir/Clearwell with no alteration in water source or treatment relative to current conditions. The Project as designed will increase storage capacity from 1.3 million gallons to a total of 2.62 million gallons (1.31 million gallons/tank). The increase in capacity will allow for improved fire flow in the system. As such, long-term operation of the Proposed Project will have no impact on existing water quality standards or WDRs.

4.10.3.2 Project Construction

Site preparation and construction activities associated with proposed Martell reservoir demolition and the two-tank construction will involve temporary/short-term earth-moving activities including trenching and

grading. Although ephemeral drainage feature is not within the construction area, soil erosion and sediment loading at the culvert crossing under the access road could occur. Construction activities that are subject to the NPDES Construction General Permit includes clearing, grading, and disturbances to the ground, such as stockpiling or excavation, which result in soil disturbances of at least one acre of total land area. The SWRCB permits all regulated construction activities under Order No. 98-08-DWQ (SWRCB 1999). This order requires that prior to beginning any construction activities, the permit applicant must obtain coverage under the General Construction Permit by preparing and submitting a Notice of Intent and appropriate fee to the SWRCB. Additionally, coverage will not occur until an adequate SWPPP has been prepared. A separate NOI shall be submitted to the SWRCB for each construction site.

Required elements of a SWPPP include (1) site description addressing the elements and characteristics specific to the site; (2) descriptions of BMPs for erosion and sediment controls; (3) BMPs for construction waste handling and disposal; (4) implementation of approved local plans; (5) proposed post-construction controls, including a description of local post-construction erosion and sediment control requirements; and (6) non-stormwater management.

Typical construction BMPs include, but are not necessarily limited to, scheduling or limiting activities to certain times of year; prohibiting certain construction practices; implementing equipment maintenance schedules and procedures; implementing a monitoring program; other management practices to prevent or reduce pollution, such as using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; storing materials and equipment to ensure that spills or leaks do not enter the storm drain system or surface waters; developing and implementing a spill prevention and cleanup plan; installing traps, filters, or other devices at drop inlets to prevent contaminants from entering storm drains; and using barriers, such as straw bales or plastic, to minimize the amount of uncontrolled runoff that could enter drains or surface water. Typical operation BMPs include, but are not necessarily limited to, controlling roadway and parking lot contaminants by installing oil and grease separators at storm drain inlets, incorporating peak-flow reduction and infiltration features (such as grass swales, infiltration trenches, and grass filter strips) into landscaping, and implementing educational programs. Because construction of the Proposed Project would cumulatively disturb more than one acre, all activities would be subject to these permit requirements.

With preparation of the required SWPPP, implementation of BMPs associated with that plan and listed above and compliance with the Amador County Erosion Control Ordinance 1690, the construction activities for the Proposed Project would fully comply with all relevant water quality standards and WDRs as described above. The impact, therefore, is less than significant and no mitigation is required.

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.

Construction and operation of the Proposed Project would in no way alter current use of groundwater within the City service area. Due to the existing conditions of the construction area and construction details any localized effects of the Project on groundwater recharge would be unsubstantial. Therefore, this impact is less than significant. No mitigation is required.

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?	☐	☐	☒	☐

Less Than Significant Impact.

Construction of the Proposed Project will not alter the existing drainage pattern of the area, nor will it alter the course of a stream or river through addition of impervious surfaces. Project construction and staging activities will result in soil disturbances of at least one acre of total land area. As such, an NPDES Construction General Permit will be required prior to the start of construction. Additionally, coverage will not occur until an adequate SWPPP has been prepared.

As noted, required elements of a SWPPP include (1) site description addressing the elements and characteristics specific to the site; (2) descriptions of BMPs for erosion and sediment controls; (3) BMPs for construction waste handling and disposal; (4) implementation of approved local plans; (5) proposed post-construction controls, including a description of local post-construction erosion and sediment control requirements; and (6) non-stormwater management.

Excavation and grading activities associated with the Proposed Project will expose bare soil surfaces making these surfaces more susceptible to erosion and sediment transport. To comply with the

requirements of the NPDES Construction General Permit AWA 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 AreaProject Area runoff and sediment transport. Requirements for the SWPPP include incorporation of both erosion and sediment control BMPs. The SWPPP should include the following applicable elements:

- diversion of offsite run-off 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 surrounding 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 on-site and off-site erosion and siltation, therefore, would be less than significant and no mitigation is required.

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?	☐	☐	☐	☒

No Impact.

The Proposed Project is not located within an area that experiences floods or tsunamis. Therefore, no impact would occur and no mitigation is required.

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?	☐	☐	☒	☐

Less Than Significant Impact.

As discussed under a) and c) above, with acquisition of the required SWPPP, and compliance with standard permit measures for the control and management of construction-related erosion and polluted runoff, the Proposed Project impacts on the quality and quantity of runoff during construction would be less than significant. With restoration of the Project AreaProject Area to pre-Project conditions relative to topography and cover after Project completion, the long-term impact of the Project on water quality is less than significant. No mitigation is required.

4.10.4 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 Proposed Project is located within the Martell area of Amador County but is within the City's SOI. The City of Jackson General Plan land use designation is Urban Reserve (City 2023a).

Amador County has a General Plan land use designation of Agricultural General and a zoning of R1-A, which is Single-Family Residential-Agricultural District for the Project AreaProject Area (Amador County 2024a, 2024b). The definition of R1-A is below:

> Intent--Applicability. This district classification is intended to be applied to areas presently zoned as U, unclassified district, and suited to residential and agricultural land uses, subject to such regulations as necessary to protect the public health, safety, convenience, and general welfare within the district and adjacent districts.

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?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project consists of the replacement of existing Martell Reservoir/Clearwell to better service existing customers and increase the reliability of the City distribution system. The Proposed Project will be

constructed within the same area as the existing water storage tanks. The Proposed Project would not physically divide an established community. A less than significant impact would occur and no mitigation is required.

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?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project involves the construction of new water storage tanks and decommissioning of the existing storage reservoir. The Proposed Project is consistent with Amador County's plans and policies; and therefore, the Proposed Project would not conflict with any applicable land use plan, policy or regulation. A less than significant impact would occur and no mitigation is required.

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

Minerals are defined as any naturally occurring chemical elements or compounds formed by inorganic processes and organic substances. Minable minerals are defined as a deposit of ore or minerals having a value materially in excess of the cost of developing, mining, and processing the mineral and reclaiming the Project Area. The conservation, extraction, and processing of mineral resources is essential to meeting the needs of society.

The Surface Mining and Reclamation Act (SMARA) of 1975 states that cities and counties shall adopt ordinances "...that establish procedures for the review and approval of reclamation plans and financial assurances and the issuance of a permit to conduct surface mining operations..." (PRC Section 2774). The intent of this legislation is to ensure the prevention or mitigation of the adverse environmental impacts of mining, the reclamation of mined lands, and the production and conservation of mineral resources are consistent with recreation, watershed, wildlife, and public safety objectives (PRC Section 2712).

SMARA requires the State Geologist to classify land into Mineral Resource Zones (MRZs) according to the known or inferred mineral potential of that land. The process is based solely on geology, without regard to existing land use or land ownership. The primary goal of mineral land classification is to ensure that the mineral potential of land is recognized by local government decision makers and considered before land use decisions, which could preclude mining, are made. Areas subject to California mineral land

classification studies are divided into the following MRZ categories that reflect varying degrees of mineral potential:

- *MRZ-1* – Areas of no mineral resource significance
- *MRZ-2* – Areas of identified mineral resource significance
- *MRZ-3* – Areas of undetermined mineral resource significance
- *MRZ-4* – Areas of unknown mineral resource significance

According to DOC mapping, the Project Area is listed as MRZ-2b, which is areas of identified mineral resource significance (Loyd 1984).

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?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project is located within an MRZ classification as MRZ-2b. As defined above in 4.12.1 Environmental Setting, MRZ-2b is known as "containing discovered mineral deposits that are significant inferred resources". Although mineral resources existing within the Proposed Project Area, construction and operation of the Project does not preclude the extraction of these mineral resources in the future. Therefore, implementation of the Proposed Project would not result in the loss of availability of a known mineral resource. As less than significant impact would occur and no mitigation is required.

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?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project is not located within a current locally important mineral resources recovery site, and it has not been historically mined (City 2023a). As described in item a), the Proposed Project Project AreaSite is classified as MRZ-2b, however it has not been delineated within the general plan or other land use plans as a locally important mineral resource recovery site. The Kennedy Gold Mine is less than 0.5-

miles away from the Project AreaProject Area, however, the mine is no longer active and is considered historical. As such, a less than significant impact would occur. No mitigation is required.

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 Equivalent Noise Level (L_{eq}) and the Day-Night Average Noise Level (L_{dn}) and 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:

- *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.
- *L_{dn}* is a 24-hour average L_{eq} with a 10 A-weighted decibel (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}.
- *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 several 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 decibels (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 (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, 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 single-family residences located approximately 0.30 miles south.

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 Area, which is located just north of the City in Amador County, is impacted by the noise sources of households, construction equipment, vehicles, and air traffic from Westover Field (City 1987). Other noise sources include major transportation corridors such as SR-49 and SR-88. The nearest source of traffic noise is SR-88.

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 that "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 2 or Category 3.

Table 4.13-1. American National Standards Institute 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	63,840	67	66	58

Table 4.13-1. American National Standards Institute 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}
		where many motor buses and heavy trucks accelerate.				
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
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 Noise Level; L_{eq} = Equivalent Noise Level

Source: American National Standards Institute 2013

4.13.2 Regulatory Framework

4.13.2.1 Amador County General Plan Noise Element

Amador County's General Plan Noise Element establishes several policies and implementation measures to help maintain or abate ambient noise levels and protect the residents of Amador County from excessive noise exposure. Compatibility guidelines varying by land use for interior and exterior noise levels help to protect sensitive receptors and land uses. The following policies are applicable to the Proposed Project:

Policy N-1.1: Enforce noise standards to maintain acceptable noise limits, especially near noise-sensitive uses. Noise measurement methods are subject to County approval.

Policy N-1.3: Evaluate potential noise conflicts for individual sites and projects, and require mitigation of all significant noise impacts (including construction and short-term noise impacts) as a condition of project approval.

Policy N-2.1: Minimize noise conflicts between current and proposed land uses and the circulation network by encouraging compatible land uses around critical roadway segments with higher noise potential.

Policy N-4.3: Prevent the encroachment of noise sensitive land uses into areas designated for use by existing or future noise generators.

Table 4.13-2 identifies interior land use compatibility standards for the uses that may occur within Amador County. These standards establish maximum interior noise levels for new development, requiring that sufficient insulation be provided to reduce interior ambient noise levels to 45 dBA CNEL.

Table 4.13-2. Land Use Compatibility for Community Noise Environments

Uses	CNEL (dBA)	
	Interior	Exterior
Active and Passive Agricultural Operations	–	75
Single-Family and Duplex	45	60
Mobile Home Park	–	60
Multiple-Family	45	65
Mixed-Use	45	70
Transient Lodging (Motels, Hotels)	45	65
Sports Arenas, Outdoor Spectator Sports	–	–
Auditoriums, Concert Halls, Amphitheaters	45	–
Office Buildings, Business, Commercial, Professional	–	70

Table 4.13-2. Land Use Compatibility for Community Noise Environments		
Uses	**CNEL (dBA)**	
	Interior	**Exterior**
Manufacturing, Utilities, Processing, Distribution, Storage	–	75
Schools, Nursing Homes, Day Care Facilities, Hospitals, Convalescent Facilities, Dormitories	45	65
Government Facilities (Offices, Fires Stations, Community Buildings)	45	–
Places of Worship, Churches	45	–
Libraries	45	–
Playgrounds, Neighborhood Parks	–	70
Cemeteries	–	75
Mining, Managed Forestry	–	75
Passive Recreation	–	75
Golf Courses, Riding Stables, Water Recreation	–	–

Notes: CNEL = Community Noise Equivalent Level; dBA = A-weighted decibels
Interior habitable environment excludes bathrooms, closets and corridors. Interior noise standards shall be satisfied with windows in the closed position. Mechanical ventilation shall be provided per Uniform Building Code requirements. Exterior noise level standard to be applied at outdoor activity areas. Where the location of an outdoor activity area is unknown or not applicable, the noise standard shall be applied inside the property plane of the receiving land use.

Source: Amador County 2016

Due to the potentially different characteristics of transportation-related source and stationary source noise (e.g., heating, ventilation, and air conditioning and loading dock activities), Amador County applies a second set of standards when planning and making development decisions to ensure stationary noise sources do not adversely affect noise-sensitive land uses. These hourly and maximum performance standards (expressed in L_{eq} and L_{max}) for stationary noise sources are designed to protect noise-sensitive land uses adjacent to stationary sources from excessive and continuous noise. Table 4.13-3 summarizes Amador County stationary source noise standards. These standards represent the acceptable exterior noise levels at the sensitive receptor's property plane.

Table 4.13-3. Noise Level Performance Standards for Non-Transportation Noise Sources		
Noise Level Descriptor	**Daytime (7:00 a.m.–10:00 p.m.)**	**Nighttime (10:00 p.m.–7:00 a.m.)**
Hourly Average Level (L_{eq})	60 dBA	45 dBA
Maximum Equivalent Levels (L_{max})	75 dBA	65 dBA

Notes: dBA = A-weighted decibel; L_{eq} = Equivalent Noise Level; L_{max} = Maximum Noise Level
Each of the noise levels specified shall be lowered by 5 decibels for simple tone noises, noises consisting primarily of speech, or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings). The noise standard is to be applied at the property planes of the affected land use.

Source: Amador County 2016

4.13.2.2 Amador County Municipal Code

Amador County's regulations with respect to noise are included in Chapter 17.44 *Noise*, of the Amador County Code. *Exceptions*, outlined in Section 17.44.070, detail exemptions to the noise codes and ordinances. This part of the code states that noise codes and ordinances shall not apply to non-single family residential construction, provided the activities do not take place before 7:00 a.m. or after 9:00 p.m. on any day except Sunday, or before 9:00 a.m. or after 6:00 p.m. on Sunday.

4.13.3 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 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 receptors to the Project Area are single-family residences located approximately 0.30 mile south.

4.13.3.1 Onsite Project 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.

The nearest sensitive receptors to the Project Area are single-family residences located approximately 0.30 mile south. As previously mentioned, Amador County Municipal Code Section 17.44.070 states noise regulations (see Table 4.13-3) do not apply to non-single family residential construction, provided the activities do not take place before 7:00 a.m. or after 9:00 p.m. Monday through Saturday, or before 9:00 a.m. or after 6:00 p.m. on Sunday. In the case that Project construction occurs during the times exempted from Amador County noise standards it would not be constrained with a numeric noise level limit; however, if Project construction occurs outside of the noise standard exempted hours, construction noise would have to be limited to the noise levels identified in Table 4.13-3.

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 FHWA's Roadway Noise Construction Model 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 FTA guidance for calculating construction noise, which recommends measuring construction noise produced by all construction equipment simultaneously from the center of the Project Area (FTA 2018), which in this case is approximately 0.33 mile (1,742 feet) from the closest single-family home located on Ridgecrest Drive, south of the Project Area. The anticipated short-term construction noise levels generated for each phase of construction are presented in Table 4.13-4.

Table 4.13-4. Construction Average (dBA) Noise Levels at Nearest Receptor (1,742 Feet Distant)			
Construction Phase	**Estimated Exterior Construction Noise Level at Nearest Receptor (dBA)**	**Construction Noise Standards (dBA L_{eq})**	**Exceeds Standards?**
Water Tank/Water Treatment Plant Building			
Demolition	56.5	*85*	**No**
Site Preparation	53.7	*85*	**No**
Grading	55.0	*85*	**No**
Building Construction	54.8	*85*	**No**
Paving	54.4	*85*	**No**
Architectural Coating	42.8	*85*	**No**
Piping			
Grubbing & Land Clearing	50.8	*85*	**No**
Grading & Excavation	52.3	*85*	**No**
Drainage, Utilities, & Sub-Grade	50.7	*85*	**No**
Paving	51.8	*85*	**No**

Notes: dBA = A-Weighted decibels; FHWA = Federal Highway Administration; FTA = Federal Transit Administration; L_{eq} = Equivalent Noise Level*
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 (FTA 2018), which is 1,742 feet from the closest residence.
*L_{eq} is the average acoustic energy content of noise for a stated period of time. Thus, the Leq 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, Inc. using the FHWA Roadway Noise Construction Model (FHWA 2006). Refer to Appendix A for Model Data Outputs.

As shown in Table 4.13-4, construction activities would not exceed the 85 dBA NIOSH construction noise threshold at the nearest noise-sensitive receptors. It is noted that construction noise was modeled on a worst-case basis. It is very unlikely that all pieces of construction equipment would be operating at the same time for the various phases of Project construction as well as at the point closest to residences. As also shown in Table 4.13-4, the greatest construction noise level as experienced by the nearest noise-sensitive land use is estimated to be 56.5 dBA, which is below the hourly noise limit during the daytime hours (7:00 a.m.–10:00 p.m.). Thus, Project construction would be allowed during the non-exempted hour of 9:00 p.m. to 10:00 p.m. since it would not exceed Amador County daytime noise standards. However, all construction noise would exceed the standard for nighttime noise and therefore no construction would be allowed during the non-exempted nighttime hours of 10:00 p.m. through 7:00 p.m. With implementation

of Mitigation Measure NOI-1, which limits Project construction to the noise standard-exempted hours established by the Amador County Municipal Code, impacts would be less than significant.

4.13.3.2 Offsite Construction Traffic Noise Impacts

Project construction would result in additional traffic on adjacent roadways over the period that construction occurs. According to the California Emissions Estimator Model, which was used to predict the number of construction-related automotive trips, the maximum number of Project construction trips traveling to and from the Project Area during a single construction phase would not be expected to exceed 28 daily trips in total (26 worker commute trips and 2 haul trips). According to Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol (Caltrans 2013), a 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). The addition of 28 trips would not result in a doubling of traffic on the local transportation network, and therefore its contribution to existing traffic noise would not be perceptible. Additionally, it is noted that construction is temporary, and these trips would cease upon completion of the Project.

4.13.3.3 Operational Noise Impacts

Project operations would result in additional traffic on adjacent roadways as the Project includes the construction of a new building for a site office and the new tanks that would require intermittent maintenance, although such maintenance would be minimal requiring a negligible amount of traffic trips on an annual basis. According to the California Emissions Estimator Model, which was used to predict the number of operation-related automotive trips, the maximum number of trips would be 19 weekday trips and 6 weekend trips. According to Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol (Caltrans 2013), a 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). The addition of 25 trips weekly would not result in a doubling of traffic on the local transportation network, and therefore its contribution to existing traffic noise would not be perceptible. 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) Result in generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☒	☐

Less Than Significant.

4.13.3.4 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 4.13-5.

Table 4.13-5. 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: California Department of Transportation 2020; Federal Transit Administration 2018

Amador County does not regulate or have a numeric threshold associated with construction vibrations. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, the Caltrans-recommended 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 (Caltrans 2020). 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 a church located south of the Proposed Project, located approximately 700 feet from the center of the Project Area.

Based on the representative vibration levels presented for various construction equipment types in Table 4.13-5 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 4.13-6 presents the expected Project related vibration levels at a distance of 700 feet.

Table 4.13-6. Construction Vibration Levels at 700 Feet							
Receiver PPV Levels (inches per second)*					Peak Vibration	Threshold	Exceed Threshold?
Large Bulldozer, Caisson Drilling, & Hoe Ram	Loaded Trucks	Jackhammer	Small Bulldozer/ Tractor	Vibratory Roller			
0.0006	0.0005	0.0000	0.0002	0.0014	0.0014	0.3	No

Notes: PPV = peak particle velocity
*Based on the Vibration Source Levels of Construction Equipment included on Table 4.13-6 (Federal Transit Administration 2018). Distance to the nearest structure of concern is approximately 1,742 feet measured from Project Area center.

As shown in Table 4.13-6, vibration as a result of onsite construction activities in the Project Area would not exceed 0.3 PPV at the nearest structure. Thus, onsite Project construction would not exceed the recommended threshold. Impacts would be less than significant.

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.

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?	☐	☐	☒	☐

Less Than Significant.

The Project Area is located approximately 0.24 mile south of the Amador County Airport, also known as Westover Field. According to the 2018 Westover Field ALUCP, the Proposed Project is located in Review Area 1. Additionally, the Project Area is located within the 55 CNEL contour, which includes commercial and industrial uses as normally acceptable (Amador County 2018).

Review Area 1 includes the areas covered by the airport noise contours, safety zones, airspace protection surfaces, and overflight notification areas, which are subject to applicable compatibility criteria and

policies in the ALUCP. Projects located in one area but not another are only subject to the policies of the factor area(s) in which they are located (Amador County 2018).

The Proposed Project would replace the existing Reservoir with two storage tanks which would be located approximately in the footprint of the current reservoir; install new inlet and outlet piping to and from the new tanks and connect to existing fill and distribution pipes; and construct a new building for water system operations. Short-term workers, such as construction workers, would temporarily be subject to noise from the airport. The Proposed Project includes construction of a new building for a site office and the new tanks which would require intermittent maintenance. These workers would be subject to noise from the airport; however, commercial and industrial uses are designated as normally acceptable within the 55 CNEL airport contour. Impacts would be less than significant.

4.13.4 Mitigation Measures

NOI-1: **Construction Hours.** Project construction shall be limited to the Amador County standard exempted hours of 7:00 a.m. through 9:00 p.m., Monday through Saturday, and 9:00 a.m. through 6:00 p.m., Sundays.

- *Timing/Implementation*: During Construction
- *Monitoring/Enforcement*: Amador County Planning Department; City of Jackson Planning Department

4.14 Population and Housing

4.14.1 Environmental Setting

The Proposed Project is located within the Martell area of Amador County and is within the City's SOI. A city's SOI is the probable physical boundary and service area of a local agency, as adopted by a Local Agency Formation Commission. An SOI may include both incorporated and unincorporated areas within which a city or special district will have primary responsibility for the provision of public facilities and services. The Planning Area for the City of Jackson General Plan includes the entire City limits, the City's SOI and lands beyond the SOI (City 2023a).

According to the Department of Finance, in 2023 the total population for the City was estimated to be 4,938 (California Department of Finance 2023).

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 Proposed Project involves demolition of the existing Martell Reservoir/Clearwell and replacing it with two new water storage tanks directly south of the existing reservoir. Implementation of the Proposed Project would not extend service to areas that do not currently have service. The Proposed Project would upgrade existing deficient infrastructure and would not induce substantial population growth in the area. Furthermore, minimal operation and maintenance would be required, and no permanent employees would be hired as a result of the Proposed Project. No impact would occur and no mitigation is required.

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.

As described above, the Proposed Project involves demolition of the existing Martell Reservoir/Clearwell and replacing it with two new water storage tanks approximately within the footprint of the existing reservoir. The Proposed Project would not displace any existing housing and therefore, no impact would occur and no mitigation is required.

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

4.15.1.1 Police Services

The City of Jackson Police Department provides law enforcement services within the City limits. The Police Department provides all aspects of law enforcement, including patrol, investigations, daytime 911 dispatch, traffic enforcement, and traffic collision investigations. The City of Jackson Police Department has one main office, which is located at the intersection of Highway 49 and Highway 88.

The Amador County Sheriff's Department (ACSD) service area includes the unincorporated portions of Amador County. ACSD also provides contractual law enforcement services to Plymouth and Amador County. ACSD's mission is to protect life and property and enforce civil and criminal laws while respecting the rights of all, recognizing the diversity of the community served, identifying and maintaining a high level of professionalism, integrity and readiness, and delivering consistent and humane treatment to those under care and custody. The Sheriff's Department provides boating patrol service, dispatch and communications, Search and Rescue, internal affairs, records and clerical, recruitment, the Amador Narcotics Enforcement Unit, the coroner division, Crime Specific Units, a detective division, the Marijuana Suppression Unit, patrol operations, a Special Weapons and Tactics Team, transportation, and jail operations.

The California Highway Patrol also assists with the Amador County Sherriff's Department with mutual law enforcement assistance as well as traffic violations.

4.15.1.2 Fire Services

Fire protection services within the City is provided by the Jackson Fire Department (JFD). The Amador Fire Protection District (AFPD) also provides fire protection services for the surrounding rural area around the City (in unincorporated Amador County).

The JFD provides fire suppression and emergency medical services to all areas within the City limits. Services provided by the JFD include fire suppression, Emergency Medical Services (EMS), search and rescue, and extrication. The City has 23 total firefighters – 4 full time and 19 volunteers. The JFD has five EMS first responders. The JFD has two stations: Station 1 is located at 175 Main Street, which is approximately 1.50 miles away from the Proposed ProjectProject Area Site. Station 2 is located at 10600 Argonaut Drive, which is approximately 0.35 miles away from the Proposed ProjectProject Area Site.

AFPD provides fire suppression and emergency medical services to unincorporated areas of Amador County, including the SOI area that currently lies within unincorporated Amador County. AFPD serves approximately 85 percent of the unincorporated area of Amador County.

The Proposed Project is located within the AFPD boundary. The closest AFPD station is Fire Station 116, which is located at the Jackson Rancheria Casino and Resort, approximately 3.25 miles away from the Proposed Project. Fire station 116 is staffed full-time with career personnel. The apparatus assigned to Fire

Station 116 includes Engine 5361, Engine 5368, and Engine 5364. Fire Station 116 also serves as our on-duty Battalion Chief Headquarters (AFPD 2024).

4.15.1.3 Schools

The Amador County Unified School District (ACUSD), which provides public school services for elementary and high schools (grade K-12) throughout Amador County serves the Planning Area. The ACUSD is divided into five separate areas for planning purposes. The City and the SOI are located in Area 4. The following schools are located in the ACUSD and would serve the Jackson area: Jackson Elementary serves grades K-6 and is located at 220 Church Street; the Jackson Junior High School serves grades 6 through 8 and is located at 333 Rex Avenue, also in the City; and Argonaut High School is located at 501 Argonaut Lane in the City.

4.15.1.4 Parks

The City of Jackson Department of Public Works oversees and manages park and recreation resources within the City limits. The City public park and recreational grounds are divided into three distinct categories: community-wide parks, neighborhood parks, and historical sites, monuments, and small landscape areas. The City owns and operates four park facilities to enhance recreation opportunities for citizens.

A total of 118.4 acres of parkland are currently located within the Amador County Planning Area, including 11.8 acres of neighborhood parks, 98.0 acres of community parks, 6.2 acres of regional parks, 0.3 acre of special use areas, 0.5 acre of landscaped area, and 1.6 acres of undeveloped parkland. These parklands are managed by Amador County Recreation Agency (ACRA), the Pine Grove Community Services District, and the Volcano Community Services District (Amador County 2016b).

The closest park to the Project Area is Kennedy Tailing Wheels Park, which is located off of North Main Street in the City. It is approximately 0.75 miles away from the Project Area.

4.15.1.5 Other Public Facilities

Library Services

The Amador County Library Main Library is located in the City at 530 Sutter Street. The Amador County Library Main Library offers computer workstations for Internet and word processing use, a ready reference collection, and a circulating collection of popular materials in English and Spanish.

Jackson Hospital and Medical Facilities

Health care facilities within the City encompass Sutter Amador Hospital, residential care facilities, as well as private physicians and other medical practitioners. Sutter Amador Hospital, a hospital operated by Sutter Health, provides acute care service for the City and the surrounding community. The hospital is located at 200 Mission Boulevard in the City. Sutter Amador Hospital offers 24-hour emergency care, outpatient care, and general surgical care.

The Amador County Public Health Department is organized under the Amador County Health Services Agency and provides maternal and child health care programming, California Children's Services, child health and disability programs, vaccinations and general public health nursing to the community. Alcohol & drug programs are also organized under the Amador County Health Service Agency and provide residential treatment, out-patient counseling, perinatal programs and community education and information. Mental Health programs offered by the same agency provide services to citizens of all ages who have a demonstrated mental disorder or affective disorder. Services include but are not limited to in-patient services, residential services, out-patient counseling, medication monitoring and community education and referral.

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 Proposed Project consists of the replacement of an existing undersized Martell Reservoir/Clearwell with two adequately sized water storage tanks to help increase fire flow and improve the distribution system reliability in the City and Martell area. The Proposed Project would be maintained by the City and would not require public services beyond existing conditions. The increased fire flow would assist local firefighters in providing improved fire protection service to the local community. The Proposed Project is located in and around the footprint of the existing Martell Reservoir/Clearwell. Implementation would not interfere with emergency response times or the use of schools, parks, or other facilities. There would be no impact and no mitigation is required.

4.15.3 Mitigation Measures

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

4.16 Recreation

4.16.1 Environmental Setting

As stated previously in Section 4.15, ACRA manages parkland throughout Amador County in conjunction with the Pine Grove Community Services District, and the Volcano Community Services District. ACRA has adopted a standard of securing five acres of parkland for every 1,000 residents. Currently there are eight parks located within Amador County managed by ACRA. These include neighborhood, regional day use, community, special use area, and landscape area classified as parkland.

Undeveloped recreation areas including trails, lakes, rivers, and creeks are not managed by ACRA; access is available to the public through national forest land managed by the U.S. Forest Service, Bureau of Land Management lands, Bureau of Reclamation lands, and East Bay Municipal District's lands located along Pardee and Camanche reservoirs and within the National Forest (Amador County 2014).

The City of Jackson Department of Public Works oversees and manages park and recreation resources within the City limits. The City public park and recreational grounds are divided into three distinct categories: community-wide parks, neighborhood parks, and historical sites, monuments, and small landscape areas. The City owns and operates four park facilities to enhance recreation opportunities for citizens.

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.

The Proposed Project consists of the replacement of existing Martell Reservoir/Clearwell to increase fire flow and improve the distribution system reliability in the City. The population would not increase as a result of the Project; therefore, use of the existing neighborhood, regional parks, or other recreational facilities would not change from the current use. As such, the Proposed Project would not increase the use of existing recreational facilities that could cause substantial physical deterioration of the facilities. Therefore, no impact would occur and no mitigation is required.

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.

See discussion under item a). The Proposed Project consists of the replacement of Martell Reservoir/Clearwell. No recreational facilities are proposed as part of the Project; therefore, no impact would occur, and no mitigation is required.

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 Proposed Project is within the City SOI within Amador County. Three state highways operated and maintained by Caltrans pass through the Jackson area, SR-49, -88, and -104. Each facility is described below.

4.17.1.1 State Route 49

SR-49 extends from Oakhurst in Madera County to Vinton in Plumas County, connecting many of the historic towns developed during the gold mining days. It is the major north/south highway through Amador County. Within the Jackson area, SR-49 becomes coincidental with SR-88 between Martell and the City and is classified as a minor arterial. Within the City limits, SR-49 bisects the City providing access to much of the commercial uses on both sides of the highway and is primarily a four-lane facility with a two-way left-turn lane, though the southerly, downhill portion heading into the City's downtown area features a single travel lane. The posted speed limit varies from 30 to 50 miles per hour (mph).

4.17.1.2 State Route 88

SR-88 is a two-lane, principal arterial that runs west to east through Amador County, connecting San Joaquin County on the west and to Alpine County on the east. SR-88 becomes coincidental with SR-49 in the Martell area and runs south into the City. SR-88 serves significant local and recreational traffic traveling through the Jackson area. The intersection of SR-49 and SR-88 is considered among the most heavily used intersections in Amador County. Within the City Planning Area, SR-88 is a two-lane undivided conventional highway with posted speed limits ranging from 35 to 45 mph.

4.17.1.3 State Route 104

SR-104 is a major collector which originates at SR-99 at Galt in Sacramento County, enters Amador County and passes through the City of Ione, intersecting SR-88. Although SR-104 is not within the City Planning Area, the segment of SR-104 that is coincidental with SR-88 provides access into the City Planning Area near Martell. This route is also important because it provides an alternate route for trucks and Jackson Rancheria Casino patrons instead of using SR-88 through the City. East of SR-49, SR-104 becomes Ridge Road, extending for about 8 miles to the Pine Grove community located on SR-88 east of the City.

The Proposed Project is located immediately adjacent to the existing Martell Reservoir, which is accessed by a service road off of Kennedy Mine Road. The Project Area is primarily surrounded by conifer forest and urban uses to the south and east.

4.17.2 Regulatory Setting

4.17.2.1 Amador County Regional Transportation Plan

The Regional Transportation Plan (RTP) produced by the Amador County Transportation Commission was adopted in 2020. The RTP serves as the backbone of transportation fiscal planning by providing capital program planning for all regional, state, and federally funded projects in Amador County. The RTP states that its purpose is to:

> … identify the region's short-term and long-range transportation needs and to establish policies, programs, and projects designed to meet those needs. Transportation improvement projects that are included in the RTP are prioritized for funding through the Regional Transportation Improvement Program.

The RTP also demonstrates compliance with air quality conformity requirements under the federal CAA (Amador County 2020b).

4.17.3 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?	☐	☐	☒	☐

Less Than Significant Impact.

Because the Proposed Project would not directly or indirectly introduce a new population into the region, the total number of trips generated by the Project is not expected to change significantly from existing

conditions. Project construction will, however, result in temporary increases in local traffic due to the transport of construction personnel, equipment and material to the Project AreaProject Area.

As noted in Section 2.0, the Proposed Project would be completed in approximately 5-6 months. Construction activities would require the use of diesel construction equipment such as a crane, excavators, loaders, cement mixers, rollers, pavers, and other paving equipment.

Project construction would have a temporary impact on traffic flow in the vicinity of the Proposed Project. Existing traffic levels would increase on the Project roadways due to deliveries of materials and equipment to the Project AreaProject Area and by workers commuting to the site on a daily basis. It is assumed that construction workers would travel to and from the construction site in personal vehicles.

Construction activities may minimally degrade traffic conditions due to additional vehicle trips for the delivery of construction equipment, haul trucks, and worker vehicle trips. However, construction activities will not be located within a roadway nor will the Project require lane closures or full roadway closures. Therefore, slight increases in traffic due to construction workers and equipment would be short term and are considered less than significant.

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)?	☐	☐	☒	☐

Less Than Significant.

As noted, the Proposed Project would not directly or indirectly result in long-term increases in vehicle traffic in the Project Area or within the City or Martell area. As such, the Proposed Project would not be inconsistent with any adopted local or regional transportation plans or CEQA guidelines. No lane closures or traffic disruption is anticipated as a part of the Proposed Project. A slight increases in traffic may occur during Project construction; however, this is considered a short-term and less then significant impact.

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 Proposed Project does not include changes to traffic lanes or roadways. Therefore, no impact on geometric design features and no mitigation is required.

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.

The Proposed Project would not require modifications to roadway features and therefore would not result in any adverse impact on emergency access.

4.17.4 Mitigation Measures

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

4.18 Tribal Cultural Resources

4.18.1 Environmental Setting

4.18.1.1 Local Pre-Contact History

California's Great Central Valley has long held the attention of archaeologists and was a focus of early research in California. Various cultural patterns were proposed by archaeologists (see Beardsley 1948, 1954; Fredrickson 1973, 1974, and 1994; Heizer 1949; and Lillard et al. 1939). The pattern presented below follows Rosenthal, White, and Sutton's (Rosenthal et al. 2007) recalibrated sequence which is divided into three broad periods: The Paleoindian Period (11,550 to 8,550 calibrated [cal.] BC); the three-staged Archaic period, consisting of the Lower Archaic (8,550 to 5,550 cal. B.C.), Middle Archaic (5,550 to 550 cal. B.C.), and Upper Archaic (550 cal. BC to AD 1,100); and the Emergent Period (AD 1,100 to Historic). The three divisions of the Archaic Period correspond to climate changes. This is the most recently developed sequence and is now commonly used to interpret Central California pre-contact history (ECORP 2024c) . The aforementioned periods are characterized by the following:

Paleo-Indian Period

This period began when the first people began to inhabit what is now known as the California culture area. It was commonly believed these first people subsisted on big game and minimally processed foods, (i.e., hunters and gatherers), presumably with no trade networks. More recent research indicates these people may have been more sedentary, relied on some processed foods, and traded. Populations likely consisted of small groups traveling frequently to exploit plant and animal resources(ECORP 2024c).

Archaic Period

This period was characterized by an increase in plant exploitation for subsistence, more elaborate burial accoutrements, and an increase in trade network complexity. The three divisions that correspond to pre-contact climate change is characterized by the following aspects (ECORP 2024c):

Lower Archaic Period

This period is characterized by cycles of widespread floodplain and alluvial fan deposition. Artifact assemblages from this period include chipped stone crescents, early wide-stemmed projectile points, marine shell beads, Eastern Nevada obsidian, and obsidian from the North Coast Ranges. Artifacts found within resources dating to this period indicate that trade was occurring in multiple directions. A variety of plant and animal species were also exploited, including acorns, wild cucumber, and manzanita berries.

Middle Archaic Period

This period is characterized by a drier climate. Two distinct settlement and subsistence patterns in this period: the Foothill Tradition and the Valley Tradition. The Foothill Tradition artifact assemblages consist primarily of locally sourced flaked stone and groundstone cobbles, while the Valley Tradition was generally characterized by diverse subsistence practices and extended periods of sedentism.

Upper Archaic Period

This period is characterized by abrupt changes to wetter and cooler environmental climate conditions. Characteristic artifacts from this period consist of more specialized artifacts such as bone tools, ceremonial blades, polished and groundstone plummets, saucer and saddle Olivella shell beads, Haliotis shell ornaments, and a variety of groundstone implements. This is indicative of much greater cultural diversity compared to artifact assemblages from previous periods.

Emergent Period

This period is most notably marked by the introduction of the bow and arrow, the emergence of social stratification linked to wealth, and more expansive trade networks signified by the presence of clam disk beads that were used as currency. This emergent era is distinguished in the archaeological record by intensive fishing, extensive use of acorns, elaborate ceremonialism, social stratification, and cremation of the dead. Artifacts associated include bow- and -arrow technology (evidenced by small projectile points), mortars and pestles, and fish harpoons with unilaterally or bilaterally placed barbs in opposed or staggered positions. Mortuary patterns include flexed burials and cremations, with elaborate material goods found in association with prestigious individuals.

4.18.2 Ethnohistory

Historically, the Project Area is in the territory occupied by the Northern Sierra Miwok. Prior to the arrival of the Spanish, the Miwok were one of the largest native groups in California, stretching from the crest of the Sierra Nevada Mountains, across the San Joaquin Valley and Delta Region, into the Coast Range north of San Francisco. The Northern Sierra Miwok lived within the foothills and mountains of the Cosumnes and Mokelumne River drainages. They belong to the Sierra Miwok language group, which is a subset of the Utian language family. Lexicostatistical chronologies suggest that the Miwok ancestors inhabited California's Delta Region for millennia, with expansion into the foothills occurring in the more recent past (ECORP 2024c).

The tribelet was the primary political unit among the Miwok. The tribelet controlled a defined territory and all the resources within it. Tribelets were composed of several lineages that were each tied to geographical locations. Richard Levy suggests that the population of Sierra Miwok settlements averaged 25 persons (Levy 1978:402).

Subsistence activities of the Northern Sierra Miwok closely resembled that of other inhabitants of the Sierra Foothills. As winter snows thawed, small groups moved out of the village, following deer into higher elevations. At the same time, spring greens were gathered to supplement the stored foods and meat. Seeds of many different plants, particularly grasses, were collected between May and August. Following the annual burning of the underbrush in August, the highly prized pine nuts were collected. Pine nuts were also occasionally collected before they were ripe in the spring. Fall and early winter was when families would set out to collect and stockpile acorns (Levy 1978:402). Hunting was a year-round activity for the Northern Sierra Miwok. Acorns from at least seven species of oak were collected and eaten by Native Americans. While acorns from the valley oak were most important to the Plains Miwok, Sierra Miwok made the most extensive use of acorns from the interior live oak, blue oak, and black oak. They were usually collected from the ground after they had fallen from the tree, although long sticks were sometimes used to collect acorns that had yet to be released (Levy 1978:402).

Animals taken by the Northern Sierra Miwok included mule deer, black bear, grizzly bear, black tailed jackrabbits, cottontails, beavers, grey and ground squirrels, wood rats, valley quail, and mountain quail. Occasional forays were made down to the valley floor to hunt antelope and tule elk, which were not available in the Sierra Foothills. Fishing was undertaken by the Sierra Miwok, yet it was not a central part of the diet. Salmon was available in the lower stretches of Sierran rivers, and trout was taken at higher elevations.

Other foods exploited by the Northern Sierra Miwok included insects such as grasshoppers and yellow jacket larvae, and shellfish such as river mussels and freshwater clam. Food taboos were observed by the Sierra Miwok and, as a result, they did not consume dog, coyote, skunk, eagle, great-horned owl, roadrunner, snakes, or frogs (Levy 1978:402).

The Sierra Miwok constructed a variety of structures for different purposes. The primary house used by the Miwok living in the foothills was the conical bark-slab house. More substantial semi-subterranean houses were occupied during the winter months by those wealthy enough to afford such a structure. A circular brush structure was used in the summer during times of mourning. Semi-subterranean earth lodges, measuring 40 to 50 feet in diameter were used for social or communal gatherings. The Miwok also made use of sweathouses that varied in size from 6 to 15 feet in diameter.

Trade was important, with goods generally traveling east to west and vice versa. Items such as Olivella and Haliotis shells, salmon, and salt traveled east from the coast and valley into the Sierra and beyond. Pine nuts, bows, arrows, deer skins, and sugar pine nuts came down from the Sierra to the Great Valley. Precious goods such as salt and obsidian were also traded in from the Great Basin. Basketry moved in both directions in the pre-contact trade networks (Wilson and Towne 1978; Levy 1978).

The Spanish made occasional forays into the Central Valley beginning around 1769, with the first written description composed by Pedro Fages in 1772. By 1776, Miwok territory had been explored by José

Canizares. In 1808, Miwok territory was again crossed by Gabriel Moraga while he led an expedition to identify appropriate sites for the establishment of new missions and to capture Native Americans who had fled missionary life. In 1813, a major battle was fought between the Miwok and the Spaniards near the mouth of the Cosumnes River.

4.18.3 Regulatory Setting

Relevant federal, state, and local laws and regulations pertaining to cultural resources are discussed below.

4.18.3.1 Federal

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" (42 U.S. Code [USC] § 4331). Cultural resources do not need to be determined eligible for the NRHP through the NHPA of 1966 (as amended) to receive consideration under NEPA. NEPA is implemented by regulations of the Council on Environmental Quality (CEQ) (40 CFR 1500–1508).

The definition of *effects* in the NEPA regulations includes both adverse and beneficial effects on historic and cultural resources (40 CFR 1508.1(i)). When determining the level of NEPA review, federal agencies must determine if potential effects on historic or cultural resources that could result from the proposed action and each alternative would be significant (40 CFR 1501.3(d)). 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 CFR1501.3(d)(1) and 40 CFR 1501.3(2)(ii)); 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 CFR1501.3(2)(v)).

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

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 consider 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 NHPA Section 106 are in 36 CFR 800. The NHPA Section 106 regulations require:

- definition of the APE;
- identification of cultural resources within the APE;
- evaluation of the identified resources within 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. NHPA 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 that the resource is 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 60.4, 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 defined as when an undertaking may:

> …alter, directly or indirectly, any of the characteristics of a Historic Property that qualify the property for inclusion in the [NRHP] in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

4.18.3.2 State

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 that 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 would be significant, then apply mitigation measures to reduce the impacts.

Per CEQA, a Historical Resource is a resource that:

1. is listed in or is eligible for the 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 PRC 5020.1(k); or
3. 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. The resource 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. The resource is associated with the lives of persons important to local, California, or national history.
3. The resource 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.
4. The resource 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 such that they would no longer be eligible would result in a significant impact. Whole or partial destruction of eligible archaeological sites would also 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 within a project area could also result in significant impacts.

CEQA also requires lead agencies to determine if a proposed project would have a significant effect on unique archaeological resources. If a lead agency determines that an archaeological site is a historical resource, the provisions of PRC Section 21084.1 and CEQA Guidelines Section 15064.5 would apply. If an archaeological site does not meet the CEQA Guidelines criteria for a historical resource, then the site may meet the threshold of PRC Section 21083.2 regarding unique archaeological resources.

"Unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

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

The CEQA Guidelines note that if a resource is neither a unique archaeological resource nor a historical resource, the effects of the project on that resource shall not be considered a significant effect on the environment (14 CCR Section 15064[c][4]).

CEQA also requires consideration of tribal cultural resources (TCRs), as defined in Section 21074 of the California PRC. TCRs are 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 listed in or eligible for 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.

Assembly Bill 52

In 2015, AB 52 amended CEQA to require that: 1) a lead agency provide notice to those California Native American tribes that requested notice of projects proposed by the lead agency; and 2) for any tribe that responded to the notice within 30 days of receipt with a request for consultation, the lead agency must consult with the tribe. Topics that may be addressed during consultation include TCRs, potential significance of project impacts, type of environmental document that should be prepared, and possible mitigation measures and project alternatives.

Pursuant to AB 52, Section 21073 of the PRC defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes.

Section 21074(a) of the PRC defines TCRs for the purpose of CEQA as:

1. 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 any of the following:

    a. included or determined to be eligible for inclusion in the CRHR; and/or

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

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

Because criteria a and b also meet the definition of a Historical Resource under CEQA, a TCR may also require additional consideration as a Historical Resource. TCRs may or may not exhibit archaeological, cultural, or physical indicators.

Recognizing that California tribes are experts in their TCRs and heritage, AB 52 requires that CEQA lead agencies provide tribes that requested notification an opportunity to consult at the commencement of the CEQA process to identify TCRs. Furthermore, because a significant effect on a TCR is considered a significant impact under CEQA, consultation is used to develop appropriate avoidance, impact minimization, and mitigation measures.

In accordance with Section 21082.3(c)(1) of the PRC:

> … information, including, but not limited to, the location, description, and use of the tribal cultural resources, that is submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with subdivision (r) of Section 6254 of, and Section 6254.10 of, the Government Code, and subdivision (d) of Section 15120 of Title 14 of the CCR, without the prior consent of the tribe that provided the information.

Therefore, the details of tribal consultation summarized herein are provided in a confidential administrative record and not available for public disclosure without written permission from the tribes.

4.18.4 Environmental Impacts and Mitigation Measures

This section describes potential impacts TCRs that could result from implementation of the Project. The section also recommends mitigation measures, as needed to reduce impacts to less than significant.

4.18.4.1 Thresholds of Significance

Based on the CEQA Guidelines Appendix G: Items XVII (a) and (b) of the CEQA Guidelines, TCR impacts are considered to be significant if a project would cause a substantial adverse change in the significance of a TCR, defined in PRC Section 21074. The CEQA lead agency makes this determination based on the expert opinion of culturally affiliated consulting tribes.

4.18.4.2 Methods of Analysis

Information about potential impacts to TCRs was drawn from: 1) the results of a search of the SLF of the NAHC; 2) existing ethnohistory information about pre-contact lifeways and settlement patterns; 3) information on archaeological site records obtained from surveys of the Project Area and the California Historical Resource Information System; and 4) the tribal consultation record under AB 52 for the Project.

Sacred Lands File Search

A search of the NAHC SLF was requested on January 11, 2024. The NAHC responded on February 6, 2024 that the SLF search was negative, meaning no sacred lands have been previously recorded within the Project Area.

Ethnographic History Information

The ethnohistorical information reviewed for the Project, including ethnographic maps (Kroeber 1925) lists the nearest Native American villages as *Yu-ló-ne*. The village is located approximately 2 miles north of the Project Area.

Archaeological Site Records

Portions of the Project Area have been subjected to an archaeological survey and records search review, and no Native American site had been previously mapped within its boundaries. In addition, approximately 25 percent of the area within a 0.5-mile radius surrounding the Project Area has been subject to cultural surveys, resulting in four Native American archaeological site having been previously recorded in the vicinity.

4.18.5 Summary of Consultation

Within 14 days of initiating CEQA review for the Project, on April 11, 2024 and April 16, 2024, the City sent Project notification letters to the California Native American tribes named above that had previously submitted general consultation request letters pursuant to Section 21080.3.1(d) of the PRC. The letter provided each tribe with a brief description of the Project and its location, the contact information for the City's authorized representative, and a notification that the tribe has 30 days to request consultation. Appendix G: Non-Confidential Tribal Consultation Record.

4.18.5.1 Buena Vista Rancheria of Me-Wuk Indians

Buena Vista Rancheria of Me-Wuk Indians did not respond to the City's notification letter, and therefore, the threshold for conducting tribal consultation with that tribe under PRC 21080.3.1(e) was not met. No further attempts at consultation were required by state law.

4.18.5.2 Calaveras Band of Mi-Wuk Indians

The Calaveras Band of Mi-Wuk Indians responded on April 16, 2024 thanking the City for the opportunity to consult and indicated they would be reaching out soon. The City did not receive any additional correspondence, and again reached backout on July 8, 2024 with no response. On April 24, 2026, the City reached out one last time and got no response back, therefore, the threshold for conducting tribal consultation with that tribe under PRC 21080.3.1(e) was not met. No further attempts at consultation were required by state law.

4.18.5.3 Chicken Ranch Rancheria of Me-Wuk Indians

Chicken Ranch Rancheria of Me-Wuk Indians did not respond to the City's notification letter, and therefore, the threshold for conducting tribal consultation with that tribe under PRC 21080.3.1(e) was not met. No further attempts at consultation were required by state law.

4.18.5.4 Ione Band of Miwok Indians

Ione Band of Miwok Indians did not respond to the City's notification letter, and therefore, the threshold for conducting tribal consultation with that tribe under PRC 21080.3.1(e) was not met. No further attempts at consultation were required by state law.

4.18.5.5 Jackson Rancheria of Miwuk Indians

Jackson Rancheria of Miwuk Indians did not respond to the City's notification letter, and therefore, the threshold for conducting tribal consultation with that tribe under PRC 21080.3.1(e) was not met. No further attempts at consultation were required by state law.

4.18.5.6 Nashville Enterprise of Miwok-Maidu Nishinam Tribe

Nashville Enterprise Miwok-Maidu Nishinam Tribe did not respond to the City's notification letter, and therefore, the threshold for conducting tribal consultation with that tribe under PRC 21080.3.1(e) was not met. No further attempts at consultation were required by state law.

4.18.5.7 United Auburn Indian Community of the Auburn Rancheria

United Auburn Indian Community of the Auburn Rancheria did not respond to the City's notification letter, and therefore, the threshold for conducting tribal consultation with that tribe under PRC 21080.3.1(e) was not met. No further attempts at consultation were required by state law.

4.18.5.8 Washoe Tribe of Nevada and California

Washoe Tribe of Nevada and California did not respond to the City's notification letter, and therefore, the threshold for conducting tribal consultation with that tribe under PRC 21080.3.1(e) was not met. No further attempts at consultation were required by state law.

4.18.5.9 Wilton Rancheria

Wilton Rancheria did not respond to the City's notification letter, and therefore, the threshold for conducting tribal consultation with that tribe under PRC 21080.3.1(e) was not met. No further attempts at consultation were required by state law.

4.18.6 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 Impact

Out of 9 tribes contacted, 8 did not respond to the City's notification letter. One tribe responded initially, but after several attempts by the City to further establish communication, there were no additional responses, therefore, other sources were reviewed to determine potential impacts to TCRs. Sources

consulted included the ethnographic history context, ethnographic maps, and results of the records search with the CHRIS, which are all incorporated into the cultural resources report. In summary, the ethnographic information reviewed for the Project did not identify any villages, occupational areas, or resource procurement locations in or around the current Project Area. The cultural resources records search did not reveal any Native American archaeological sites within the Proposed Project Area.

Examination of the lines of evidence summarized above indicate that this Project will not have an impact on known TCRs. However, there exists a potential for the discovery of previously unknown TCRs during Project construction. If TCRs are encountered, the Project activity could result in a significant impact to those resources. Implementation of unanticipated discovery procedures, as provided in mitigation measure TCR-1 below, would reduce that impact to less than significant.

4.18.7 Mitigation Measures

TCR-1: **Unanticipated Discovery of Tribal Cultural Resources.** If potentially significant TCRs are discovered during ground disturbing activities, all work shall cease within 50 feet of the find. A Native American Representative from traditionally and culturally affiliated Native American Tribes that requested consultation on the Project shall be immediately contacted and invited to assess the significance of the find and make recommendations for further evaluation and treatment, as necessary. If deemed necessary by the City, a qualified cultural resources specialist, who meets the Secretary of Interior's Standards and Qualifications for Archaeology, may also assess the significance of the find in joint consultation with Native American representatives to ensure that Tribal values are considered. Work at the discovery location cannot resume until the City, in consultation as appropriate and in good faith, determines that the discovery is either not a TCR, or has been subjected to culturally appropriate treatment, if avoidance and preservation cannot be accommodated.

4.19 Utilities and Service Systems

4.19.1 Environmental Setting

4.19.1.1 Potable Water Service

The City is located in the San Joaquin River Hydrologic Region which is primarily an agricultural area.

The City's water service area is greater than the City boundary and includes the SOI. The City purchases treated water from the AWA and owns its own distribution system that serves the City and some of the Martell area.

AWA was formed in 1959 for the purpose of providing water and wastewater services to the residents of Amador County. AWA has four general service areas: the Amador Water System (AWS), the Central Amador Water Project (CAWP) System, La Mel Heights, and Lake Camanche Village. The City is located in the AWS.

Amador County is expected to have a 2040 population of approximately 40,651 people, which is an increase of 6 percent from its 2020 population of 38,531. AWA currently provides retail service to a population of approximately 15,161 people through 7,118 retail residential water service connections. AWA is the main water purveyor for residential and commercial use in Amador County and has the legal jurisdiction to serve water throughout Amador County. AWA's primary source of water is the Mokelumne River watershed, which supplies the primary water systems of the AWS and the CAWP. Lake Camanche Village and La Mel Heights are served through groundwater. There are a total of approximately 10,730 water service connections in AWA's service area as of 2020, including approximately 7,500 retail connections and 3,230 wholesale customer connections (AWA 2021).

The City of Jackson Water Department (CJWD) provides water distribution services in the City. Customers not receiving water from the City generally receive water through private wells. The CJWD purchases its water supply from AWA which provides the CJWD with treated water from the Tanner Water Treatment Plant (TWTP). After leaving the AWA's Tanner Reservoir, the water destined for the City is treated at the TWTP and conveyed to the Martell Reservoir/Clearwell (to be replaced as a part of this Project) or the Scottsville Tank. The Martell Reservoir/Clearwell is at the north end of the City and is near the entry point for incoming water from the AWA. The Martell Reservoir/Clearwell provides the majority of the City's water and has a capacity of 1.3 million gallons and an overflow elevation of 1,668 ft. The Scottsville tank is near the southern limit of the City system, located east and uphill from the end of Scottsville Boulevard, east of SR-49. The Scottsville Tank has a capacity of 250,000 gallons and an overflow elevation of 1,430 ft. The Scottsville tank serves primarily as a supply for fire suppression as well as a pressure regulating apparatus for the City's water conveyance system. The City's water system is divided into eight pressure zones. Four zones are fed by gravity and four are fed by booster stations (City 2023).

CJWD carefully monitors the City's transmission line, reservoirs and maintains the City-wide distribution system. This includes maintaining water mains, fire hydrants, valves, and water services from mains to individual meter boxes; issuing construction water permits; installation of services, and 24 hours-a-day, seven days-a-week standby for emergencies. Staff also maintains and replaces meters for approximately 2,200 water service accounts. The City routinely conducts water quality monitoring including testing and analysis for bacteria, chlorine residual, pH, and other elements.

4.19.1.2 Wastewater

While AWA has several small wastewater collection and treatment systems, the two largest WWTPs in AWA's service area are owned and operated by the City of Sutter Creek and the City of Jackson. The City of Sutter Creek's WWTP collects wastewater from Amador City, the City of Sutter Creek, and Martell. The WWTPs operated by the cities of Plymouth, Jackson, and Ione collect and treat wastewater from their respective cities. ARSA is a joint powers authority comprised of the City of Sutter Creek, Amador City, and Amador County. ARSA provides distribution from the City of Sutter Creek's WWTP to either the City of Ione's tertiary treatment plant (Castle Oaks Reclamation Plant), or to the City of Ione's secondary treatment plant (ponds). These service providers were consulted during the preparation of the Regional Approach for Reuse Study.

The City provides wastewater collection, treatment, and disposal services to 2,461 connections. The current City of Jackson Sewer System is a 100 percent separate sanitary system that flows primarily by gravity to the City WWTP. The City WWTP site, which is owned and operated by the City, is approximately 4 acres in size and is generally surrounded by agricultural land uses. The majority of the treatment system was upgraded in 2017, and some subsequent improvements began in 2022.

4.19.1.3 Solid Waste

The Amador County Environmental Health Department has been designated by the California Department of Resources Recycling and Recovery as the Local Enforcement Agency (LEA) for permitting solid waste handling and disposal facilities. The LEA is responsible for enforcement of solid waste disposal and handling regulations. The program implements the provisions of the Integrated Waste Management Act of 1989.

The scope of the program includes but is not limited to permitting and inspection of active solid waste disposal sites; the permitting and inspection of the two transfer stations; permitting and inspection of a compostable material operation for adherence to state standards' investigation and remediation of solid waste compliant sites; monitoring of closed, illegal, and abandoned solid waste sites; oversite of proper storage collection, and disposal of residential, commercial, and industrial solid waste; and inspection of the collection vehicles used by franchise haulers.

Currently, there are no active landfills in the county, but there are two landfills undergoing closure. Additionally, there are twelve closed or abandoned solid waste disposal sites inspected by the LEA. There are two solid waste transfer stations, Pine Grove Public Transfer Station in Pine Grove, and Western Amador Recycling Facility in Ione (Amador County 2024c).

4.19.1.4 Electricity and Natural Gas

Pacific Gas and Electric Company (PG&E) provides natural gas and electric services to approximately 16 million people throughout a 70,000-square-mile service area in northern and central California, including Amador County and the City (PG&E 2024).

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?	☐	☐	☒	☐

Less Than Significant Impact.

The Proposed Project involves the replacement of the existing undersized Martell Reservoir/Clearwell with two adequately sized water storage tanks. Minimal operations and maintenance will be required. Replacement of the existing Martell Reservoir/Clearwell would not generate an increase in population and therefore, would not require new or expanded (or relocation of) water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. Any impacts would be less than significant and no mitigation is required.

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?	☐	☐	☒	☐

Less Than Significant Impact.

As previously stated in discussion item a), the Proposed Project involves demolition of the existing Martell Reservoir/Clearwell and replacing it with two new water storage tanks approximately within the footprint of the existing reservoir to serve existing customers and would therefore have sufficient supply for the service area. Therefore, a less than significant impact would occur and no mitigation is required.

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.

The Proposed Project does not require wastewater services. Therefore, no Impact would occur and no mitigation is required.

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?	☐	☐	☒	☐

Less Than Significant Impact.

No recycling or waste disposal would be required for operation and maintenance 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 and demolition period. Demolition of the existing reservoir will create some debris that will need to be disposed of at a facility that receives construction-material; however, the two existing tanks will not create a significant amount of solid waste that tax the capacity of receiving facilities. The Project contractors would be responsible for disposing of construction-related debris in local construction-material receiving areas. A less than significant impact would occur. No mitigation is required.

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.

As previously described, no recycling or waste disposal would be required for operation and maintenance of the Proposed Project. City contractors would be responsible for disposing of construction-related debris in local construction-material receiving facilities and would comply with all federal, state, and local statues and regulations related to solid waste. Therefore, any impacts would be less than significant and no mitigation is required.

4.19.3 Mitigation Measures

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

4.20 Wildfire

4.20.1 Environmental Setting

Typically, the California fire season extends from spring to late fall. Fire conditions arise from a combination of hot weather, an accumulation of vegetation, and low moisture content in the air. These conditions, when combined with high winds and years of drought, increase the potential for wildfire to occur.

The state has charged CAL FIRE with the identification of FHSZs within SRAs. In addition, CAL FIRE must recommend VHFHSZs identified within any Local Responsibility Areas. The FHSZ maps are used by the State Fire Marshall as a basis for the adoption of applicable building code standards.

The Proposed Project is outside of City limits but is within the City's SOI. It is within a high FHSZ within an SRA (CAL FIRE 2023).

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 Project Area is located in a high FHSZ in an SRA. However, the Project is located on property that is owned and maintained by the City. The Project Area is accessible via a City-maintained access road that passes through the Kennedy Mine property, which borders the Project Area to the south and east. The Project Area contains active and inactive water system infrastructure. Implementation of the Proposed Project would not impair or conflict with an adopted emergency response or evacuation plan for areas in a VHFHSZ. Any impacts would be less than significant.

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.

The Proposed Project includes replacing the existing reservoir with two storage tanks. The site is cleared of trees and vegetation and has security fencing around the perimeter. The new tanks will provide a larger storage capacity and will help increase fire flow conditions in the existing system. The Project Area will maintain the existing cleared vegetation and trees and will therefore create a fire break in the case of a wildfire in the area. As described above, the tanks themselves will not be made of flammable materials, and the surrounding area will be cleared of flammable materials as well. Therefore, the Proposed Project would not expose nearby occupants to pollutants or increased wildfire risk. Impacts are less than significant.

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.

See above discussion. New infrastructure would not exacerbate existing fire risks that would result in temporary or ongoing impacts. Similar infrastructure already exists on the Project Area, and it would be replaced with new materials. All equipment from the water treatment plant will be demolished or salvaged as part of the Project. The existing building was part of the water treatment plant and repurposed into a site office; it will be protected in place for non-water system City purposes. A new building will be constructed west of the new storage tanks for water system operations. The existing reservoir will be demolished to accommodate the new storage tanks.

As mentioned in the Project Description, State inspections of the existing reservoir concluded it is in disrepair and undersized for current system demands and fire flow. The Proposed Project will replace the existing Martell Reservoir/Clearwell with two storage tanks for operational flexibility. Each tank will have a capacity of 1.31 million-gallons, while the current reservoir only has a capacity of 1.3 million-gallons. Implementation of the Proposed Project would actually help alleviate impacts to fire risk as it would allow for better fire flow and system demand. Therefore, implementation of the Proposed Project and associated maintenance of the Project would have a less than significant impact.

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?	☐	☐	☒	☐

Less Than Significant Impact.

Demolition of the existing reservoir and construction of the two tanks would require excavation activities within a relatively flat area adjacent to the existing tanks and would have little possibility to result in exposure of the site to increased incidence of erosion and site instability due to landslides. BMPs are included as part of the SWPPP prepared for the Proposed Project and would be implemented to manage erosion and the loss of topsoil during construction-related activities (see Section 4.10.3). With the implementation of the SWPPP, soil erosion during construction, Project staging, and the construction of

related facilities would be minimized. With limited erosion anticipated from the Project Area due to the relatively flat nature of the site, the potential for Project-induced landslides is considered less than significant. No mitigation is required.

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 Impact With Mitigation.

As stated previously in Section 4.4, with implementation of Mitigation Measures BIO-1 through BIO-7 the Proposed Project would result in a less than significant impact on the habitat of wildlife species or population, on any plant or animal community, and would not restrict the range of a rare or endangered plant or animal. Furthermore, as stated above in Section 4.5, with the implementation of proposed Mitigation Measure CUL-1, development of the Proposed Project would not result in significant impacts to Cultural Resources.

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 Impact.

For natural resource subjects (Aesthetics, Agriculture and Forest Resources, Biological Resources, Cultural Resources, Geology and Soils, Hydrology and Water Quality, and Mineral Resources), there would be no cumulative effects because all impacts would be less than significant or would be reduced to less than significant with mitigation incorporated. The Proposed Project involves the decommissioning of an existing reservoir that no longer meets design standard and is undersized for current system demands and fire flow. The decommissioned reservoir will be replaced with two new water storage tanks that will meet current design standards and will be sized appropriately for current demand and fire flow. The Project Area would maintain the same use and would not change in character. In addition, the Project would temporarily involve minimal hazardous materials use associated with construction and would not result in a cumulative effect on the environment.

The development of the Proposed Project in combination with other projects within the vicinity of the Project Area would increase the potential of impacting known and previously unknown TCRs and could contribute to loss of these resources in the area. All future projects will be required to follow existing state and federal law or other agency regulations and policies that require tribal consultation, although projects that do not require discretionary approval may not be subject to the same level of evaluation and thus result in impact to TCRs. However, the cumulative impacts from the Proposed Project would be *less than significant with mitigation incorporated*, because no TCRs were identified within the Proposed Project Area after tribal consultation under AB 52 was carried out, and other lines of evidence failed to yield information on TCRs in the Project Area. However, the development within the Proposed Project Area and in the vicinity would be subject to mitigation measures, which would reduce some of the Project's potential impacts on previously unknown TCRs and human remains to *less than significant*. Consequently, the effects of the Proposed Project, after mitigation, would not be cumulatively considerable with respect to previously unknown TCRs and human remains. With the implementation of Mitigation Measure TCR-1, the Project's potentially significant impacts on TCRs present within the Project Area would not be a cumulatively significant contribution to such impacts regionally.

The nature of the Proposed Project would not induce population growth or result in the development of new housing or employment-generating uses. Therefore, the Proposed Project would not result in a cumulative effect regarding increased demand or expansion for services or utilities. Furthermore, there are

no approved or planned projects within proximity to the Proposed Project that would contribute to cumulative effects.

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 With Mitigation Incorporated.

Direct and indirect impacts to human beings would be less than significant with the implementation of mitigation measures listed in this Initial Study.

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5.0 COMPLIANCE WITH FEDERAL REGULATIONS

The City is seeking funding for the Proposed Project under the SWRCB's CWSRF Program, which is partially funded through the USEPA. Because of the federal nexus with the USEPA, projects seeking funding through the CWSRF Program are subject to federal laws and regulations (e.g., federal "cross-cutters"). Under the CWSRF Program, the SWRCB uses a project's CEQA document along with federal cross-cutting documentation in place of a NEPA document; this document is termed a "CEQA-Plus" document. This section addresses the Project's compliance with federal laws and regulations to satisfy the CEQA-Plus requirements.

5.1 Federal Regulations Evaluation

5.1.1 Clean Water State Revolving Fund

This Project is being funded in part by federal money from the CWSRF. Because the CWSRF receives at least a portion of funding from the USEPA, such projects are required to comply with federal environmental regulations. The requirements in the Operating Agreement between the SWRCB and the USEPA that administers the State Revolving Fund federal loan program, known as CEQA Plus, require applicants to demonstrate to the satisfaction of the SHPO that the project complies with Section 106 of the NHPA. The SWRCB is the agency responsible for Section 106 (NHPA) compliance. The SWRCB has established standards to meet both state and federal requirements; as such, this report was prepared in compliance with the requisite federal standards.

In complying with CEQA Plus, the cultural resources investigation contributed to compliance with Section 106 of the NHPA and with CEQA (PRC § 21000 et seq.) The goal of the NHPA and CEQA is to develop and maintain a high-quality environment that serves to identify the significant environmental effects of the actions of a proposed project and to either avoid or mitigate those significant effects where feasible. CEQA pertains to all proposed projects that require state or local government agency approval, including the enactment of zoning ordinances, the issuance of conditional use permits, and the approval of development project maps. The NHPA pertains to projects that entail some degree of federal funding or permit approval, or in the case of this Project, are subject to CEQA Plus.

The NHPA and CEQA (Title 14, CCR Article 5, § 15064.5) apply to cultural resources of the historical and pre-contact (prehistoric) periods. Any project with an effect that may cause a substantial adverse change in the significance of a cultural resource, either directly or indirectly, is a project that may have a significant effect on the environment. As a result, such a project would require avoidance or mitigation of impacts to those affected resources. Significant cultural resources must meet at least one of four criteria that define eligibility for listing on either the CRHR (PRC § 5024.1, Title 14 CCR, § 4852) or the NRHP (36 CFR 60.4). Cultural resources eligible for listing on the NRHP are considered Historic Properties under 36 CFR Regulations Part 800 and are automatically eligible for the CRHR. Resources listed on or eligible for inclusion in the CRHR are considered Historical Resources under CEQA.

Separately, 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 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, this report only addresses information for which ECORP 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 TCR section of the CEQA document, if applicable.

5.1.2 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 NRHP through the NHPA of 1966 (as amended) to receive consideration under NEPA. NEPA is implemented by regulations of the CEQ (40 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.

5.1.3 National Archaeological and 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 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 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 60.4, 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.

As mentioned in Section 4.5, there is a lack of eligible resources within the Project Area, and the Project is found to have No Effect on historic properties as defined in Section 106.

5.1.4 Clean Air Act

General Conformity ensures that the actions taken by federal agencies do not interfere with a state's plans to attain and maintain national standards for air quality.

Established under the CAA (section 176(c)(4)), the General Conformity rule plays an important role in helping states improve air quality in those areas that do not meet the NAAQS. Under the General Conformity rule, federal agencies must work with state and local governments in a nonattainment or maintenance area to ensure that federal actions conform to the air quality plans established in the applicable state or tribal implementation plan. The overall purpose of the General Conformity rule is to ensure that:

- federal activities do not cause or contribute to new violations of the NAAQS;
- actions do not worsen existing violations of the NAAQS; and
- attainment of the NAAQS is not delayed.

Predicted annual construction-generated emissions for the Proposed Project are summarized in Table 4.3-1. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, and would not be considered a significant air quality impact since the volume of pollutants generated does not exceed the Conformity Determination thresholds.

5.1.5 Coastal Barriers Resources Act

The Coastal Barrier Resources Act (CBRA) of 1982 designated various undeveloped coastal barriers for inclusion in the Coastal Barrier Resources System (CBRS). The CBRA encourages the conservation of storm-prone and dynamic coastal barriers by withdrawing the availability of federal funding and financial assistance within the CBRS.

The Proposed Project is not within the CBRS, as it is in the State of California. The CBRS encompasses areas along the Atlantic, Gulf of Mexico, Great Lakes, U.S. Virgin Islands, and Puerto Rico coasts but not the Pacific Coast. Therefore, the Coastal Barriers Resources Act does not apply to the Project.

5.1.6 Coastal Zone Management Act

The Coastal Zone Management Act (CZMA) was passed by Congress to encourage coastal states to develop and implement a Coastal Zone Management Program (CZMP). The intents of CZMPs are to: protect natural resources; manage development in high hazard areas; give development priority to coastal-dependent uses; provide public access for recreation; prioritize water-dependent uses; and coordinate state and federal actions (National Oceanic and Atmospheric Administration 2023). The federal government certified the California Coastal Management Program in 1977, the enforceable policies of which are found in Chapter 3 of the California Coastal Act of 1976, as amended (California Coastal Commission 2024).

The Project would be located in the City within Amador County, over 115 miles east of the Pacific Coast. None of the Project's components would be located within the coastal zone, thus the CZMA does not apply to the Project.

5.1.7 Endangered Species Act, Section 7

This section is based on the analysis and recommendations presented in the BRA prepared for the Proposed Project (ECORP 2024b; Appendix B).

The ESA (16 USC 1531 et seq.) and subsequent amendments establish legal requirements for the conservation of endangered and threatened species and the ecosystems upon which they depend. The ESA is administered by the USFWS for terrestrial species, and by the National Marine Fisheries Service (NMFS) for marine species and anadromous fish. Under the ESA, species may be listed as either endangered or threatened. Section 7(a)(2) of the ESA requires that for actions authorized, funded, or carried out by a federal agency, that the agency shall consult with the USFWS and/or NMFS to ensure that their actions are not likely to jeopardize the continued existence of any threatened or endangered species, or result in the destruction or adverse modification of critical habitat of the endangered or threatened species.

Potential special-status plants, invertebrates, birds, and mammals have the potential to occur within the vicinity of the Project. However, mitigation measures discussed in Section 4.4 would reduce the potential impacts to a less than significant level. Therefore, the Project would not have the potential to violate the ESA.

5.1.8 Environmental Justice

In 1994, President Clinton issued the Executive Order (EO) 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," to focus federal attention on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities (USEPA 2022). EO 12898 directs federal agencies to:

- identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law;

- develop a strategy for implementing environmental justice; and
- promote nondiscrimination in federal programs that affect human health and the environment, as well as provide minority and low-income communities access to public information and public participation.

The CEQ oversees federal compliance with EO 12898 (CEQ 1997). According to the CEQ environmental justice guidelines, minority populations should be identified if:

- a minority population percentage either exceeds 50 percent of the population of the affected area; or
- if the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (e.g., a governing body's jurisdiction, neighborhood census tract, or other similar unit).

A project may involve an environmental justice concern if the project could create new disproportionate impacts on minority, low-income, or indigenous populations; exacerbate existing disproportionate impacts on minority, low-income, or indigenous populations; or present opportunities to address existing disproportionate impacts on minority, low-income, or indigenous populations that are addressable through the project (SWRCB 2017).

Amador County's 6th Cycle Housing Element (2021-2029) provides race and ethnicity characteristics and income information for Amador County and the City based on the U.S. Census 2019 American Community Survey. Table 5.1-1 shows Year 2019 ethnic and racial characteristics of Amador County's and the City's populations.

Table 5.1-1. Race and Ethnicity (2019)

Race/Ethnicity	Amador County Number	Amador County Percent of Total	City of Jackson Number	City of Jackson, Percent of Total
White, Non-Hispanic	33,327	86.7	4,194	88.3
Black, Non-Hispanic	904	2.4	14	0.3
American Indian and Alaska Native	303	0.8	0	0.0
Asian	508	1.3	167	3.5
Native Hawaiian and Pacific Islander	57	0.1	32	0.7
Other Race	1,500	3.9	161	3.4
Two or More Races	1,830	4.8	183	3.9
Hispanic or Latino	5,340	13.9	502	10.6

Source: Amador County 2023

The California Department of Housing and Community Development (HCD) identifies income categories based on the Area Median Income (AMI) of Amador County. The AMI for Amador County in 2021 was $78,700 for a hypothetical family of four. HCD's categories include the following:

- *Extremely low-income* – household earning up to 30 percent of the AMI
- *Very low-income* – households earning between 31 to 50 percent of the AMI
- *Low-income* – households earning between 51 to 80 percent of the AMI
- *Moderate-income* – households earning between 81 to 120 percent of the AMI
- *Above moderate-income* – households earning over 120 percent of the AMI

Table 5.1-2 shows the income level of Amador County residents by household tenure. A significantly higher percentage of renter households (62.0%) were lower income (<80% median) compared to lower-income residents who owned their homes (38.3%). The high incidence of lower income renter households is of particular significance as market rents in Amador County exceed the level of affordability for lower-income households. As shown in Table 5.1-2, all lower income households, including both renter and homeowner households, are more likely to pay more than 30% of their income for housing.

Table 5.1-2. Income by Owner/Renter Tenure – Amador County (2018)

Income Level	Renters		Owners		Total	
	Number	Percent	Number	Percent	Number	Percent
Extremely Low Income (<30% AMI)	545	16.6	675	6.3	1,220	8.7
Very Low Income (31–50% AMI)	695	21.1	995	9.2	1,690	12.0
Low Income (51–80% AMI)	800	24.3	1,685	15.6	2,485	17.6
Moderate Income & Above (>80% AMI)	1,250	38.0	7,445	68.9	8,695	61.7
Total	**3,290**	**100.0**	**10,800**	**100.0**	**14,090**	**100.0**

Note: AMI = Area Median Income

Source: Amador County 2023

SB 535 (2012) established requirements for minimum funding levels to Disadvantaged Communities (DACs) and made CalEPA responsible for identifying DACs based on "geographic, socioeconomic, public health, and environmental hazard criteria." Additionally, AB 1550 (2016) directed CalEPA to identify DACs and establish minimum funding levels. In May 2022, CalEPA updated the DAC designation to formally designate the following four categories of disadvantaged geographic areas (California Office of Environmental Health Hazard Assessment [OEHHA] 2024):

- Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0 (1,984 tracts)
- Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores (19 tracts)

- Census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0 (307 tracts)
- Lands under the control of federally recognized Tribes

CalEPA's SB 535 Disadvantage Communities Map tool shows the DACs census tracts and tribal areas as of 2022. The Project Area does not fall within the overlay area and therefore does not contain any DACs (OEHHA 2024).

The DWR Disadvantaged Communities Mapping Tool is designed to assist in the evaluation of DACs throughout the state, as defined within the various grants programs that are the responsibility of DWR's Financial Assistance Branch. Based on this mapping tool, the census block groups containing the Project Area is within a DAC overlay for the Census American Community Survey 2016 to 2020 dataset (DWR 2024).

Out of 9 tribes contacted, 8 did not respond to the City's notification letter. One tribe responded initially, but after several attempts by the City to further establish communication, there were no additional responses, therefore, other sources were reviewed to determine potential impacts to TCRs. Sources consulted included the ethnographic history context, ethnographic maps, and results of the records search with the CHRIS, which are all incorporated into the cultural resources report. In summary, the ethnographic information reviewed for the Project did not identify any villages, occupational areas, or resource procurement locations in or around the current Project Area. The cultural resources records search did not reveal any Native American archaeological sites within the Proposed Project Area.

The City is awaiting responses from any other Tribes that wish to consult. The results of the consultation process and any proposed mitigation measures will be incorporated in the Final IS/MND.

Searches of the SLF by the NAHC failed to indicate the presence of TCRs in the Project Area. If no TCRs are identified during the consultation process, a potentially significant impact to known TCRs would not occur. However, subsurface construction disturbances (e.g., trenching, excavation, grading) associated with the Proposed Project would have the potential to impact unknown TCRs. To ensure proper protection of any unknown resources, should they be encountered during Project-related ground disturbance activities, Mitigation Measures CUL-1 and TCR-1 discussed in Section 4.5. and Section 4.18 of this report would reduce potential impacts to cultural resources and TCRs to a less than significant level. Therefore, the Project would not have a disproportionate impact upon indigenous populations or tribes.

5.1.9 Farmland Protection Policy Act

The Farmland Protection Policy Act (FPPA) is intended to minimize the contribution of federal programs to the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that to the extent possible federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland. It does not authorize the federal government to regulate the use of private or nonfederal land, or in any way, affect the rights of property owners. Under the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban built-up land (DOC 2024a).

The Project is located on land designated as Other Land (DOC 2024a). The Project Area is not currently used for agriculture, and no Prime or Unique Farmlands or Farmland of Statewide Importance is located within the Project Area. As such, the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

5.1.10 Fish and Wildlife Coordination Act

This section is based on the analysis and recommendations presented in the BRA prepared for the Proposed Project (ECORP 2024b; Appendix B).

The Fish and Wildlife Coordination Act (16 USC 661-666(e)), approved in 1934 and amended in 2020, directs the USFWS to investigate and report on proposed federal actions that affect any stream or other body of water and to provide recommendations to minimize impacts on fish and wildlife resources. The provisions of Section 662(a) and Section 663(a) do not apply to those projects for the impoundment of water where the maximum surface area of such impoundments is less than ten acres, nor to activities for or in connection with programs primarily for land management and use carried out by federal lands under their jurisdiction (SWRCB 2017).

There is no designated critical habitat mapped within the Study Area.

Based on the literature review, anadromous fish critical habitat for steelhead (Central Valley Distinct Population Segment), and EFH for chinook salmon have the potential to occur within the Jackson, California 7.5-minute quadrangle. However, there is no habitat for fish within the Project Area. Therefore, there is no anadromous fish critical habitat or EFH present within the Project Area.

5.1.11 Floodplain Management

EO 13690, The Federal Flood Risk Management Standard (January 30, 2015) revises EO 11988, Floodplain Management (May 24, 1977), and directs federal agencies to take the appropriate actions to reduce risk to federal investments, specifically to update their flood-risk reduction standards. The goal of this directive is to improve the resilience of communities and federal assets against the impacts of flooding. These impacts are anticipated to increase over time due to the effects of climate change and other threats. The Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRMS) are official community maps that show special flood hazard areas and risk premium zones.

FEMA FIRM Number 06005C0556F does not show the Project Area within a flood hazard zone. There is an effective Letter of Map Revision 16-09-3078P within the area, which went effective on May 17, 2017 (FEMA 2024). All Project improvements would not redirect or impede flood waters. Therefore, no impacts related to flood hazards or flood water flows would occur.

5.1.12 Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) (Public Law 104-267) passed in 1976 and was amended by the Sustainable Fisheries Act of 1996 (Public Law 104-297) and the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act in 2007. The MSA, as amended, governs marine fisheries management in U.S. federal waters out to 200 nautical miles from shore and

encourages "long-term biological and economic sustainability of our nation's marine fisheries." The goals of the MSA are to prevent overfishing, to rebuild overfished stocks, to increase long-term economic and social benefits, and to ensure a safe and sustainable supply of seafood. The act is in place to protect our natural resources, to maximize the possible use of these resources, and to make sure the use of marine resources is done in a safe manner. Amendments to the 1996 MSA require the identification of EFH for federally managed species and the implementation of measures to conserve and enhance this habitat. Any project requiring federal authorization is required to complete and submit an EFH Assessment with the application and either show that no significant impacts to the essential habitat of managed species are expected or identify mitigations to reduce those impacts. Under the MSA, Congress defined EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 USC § 1802(10)). The EFH provisions of the MSA offer resource managers a means to heighten consideration of fish habitat in resource management. Pursuant to section 305(b)(2), federal agencies shall consult with the NMFS regarding any action they authorize, fund, or undertake that might adversely affect EFH. The Proposed Project would not affect any fisheries or EFH. Therefore, the MSA does not apply to the Project.

5.1.13 Migratory Bird Treaty Act of 1918

The MBTA of 1918 (16 USC 703-712) prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species, including eggs or active nests, except as permitted by regulation (e.g., licensed hunting of waterfowl or upland game species) by the USFWS. The MBTA states that it applies only to migratory bird species that are native to the United States or U.S. territories, and that a native migratory bird species is one that is present as a result of natural biological or ecological processes.

As described in Section 4.4, birds protected under the MBTA could nest within existing structures, shrubs, and trees on and adjacent to the Project Area. Mitigation Measure BIO-4 Preconstruction Survey for Nesting Birds requires that ground-disturbing and vegetation-disturbing work be completed during the non-nesting season to avoid impacts to nesting birds. If this is determined to be infeasible, a pre-construction survey by a qualified biologist shall be conducted prior to ground disturbing activities no more than three days in advance of vegetation clearing/ground disturbance activities. Active bird nests identified during the survey effort shall be avoided until such time that the qualified biologist has determined that the nest(s) is vacant. Depending on the location of the active nest(s), the qualified biologist may establish a no-work buffer around the active nest. Implementation of Mitigation Measure BIO-4 would ensure the Project would not violate the MBTA.

5.1.14 Protection of Wetlands

The purpose of EO 11990 (May 24, 1977) is to minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for (1) acquiring, managing, and disposing of Federal lands and facilities; and (2) providing Federally undertaken, financed, or assisted construction and improvements; and (3) conducting Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing

activities (USEPA 2024b). To meet these objectives, EO 11990 requires federal agencies, in planning their actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided (USEPA 2024b).

As described in Section 4.4, the Proposed Project contains a seasonal wetland onsite located within the southern end of the reservoir. Additionally, there is one ephemeral drainage that passes through the culvert crossing under the access road. These features could be indirectly impacted by Project activities. Indirect impacts may include inadvertent encroachments, changes in hydrology, and runoff and erosion from the Project Area. With implementation of Mitigation Measure BIO-6, which would require avoidance of aquatic resources when feasible, and establishes the required permits when avoidance is not feasible, impacts to wetlands would be lowered to a less than significant impact.

5.1.15 Rivers and Harbors Act, Section 10

The Rivers and Harbors Act (RHA) of 1899 (33 USC Section 401 et seq.) is the initial authority for the USACE regulatory permit program to protect navigable waters in the development of harbors and other construction and excavation. Section 10 of the RHA requires authorization from the Secretary of the Army, acting through the USACE, for the construction of any structure in or over any navigable water of the United States. Structures or work outside the limits defined for navigable waters of the United States require a Section 10 permit if the structure or work affects the course, location, or condition of the water body. The law applies to any dredging or disposal of dredged materials, excavation, filling, rechannelization, or any other modification of a navigable water of the United States and applies to all structures. It includes, without limitation, any wharf, dolphin, weir, boom breakwater, jetty, groin, bank protection (e.g., riprap, revetment, bulkhead), mooring structures such as pilings, aerial or subaqueous power transmission lines, intake or outfall pipes, permanently moored floating vessel, tunnel, artificial canal, boat ramp, aids to navigation, and any other permanent, or semi-permanent obstacle or obstruction.

The Project does not include the construction of any structure in or over any navigable water of the United States and would not require a Section 10 permit. The RHA does not apply to the Project.

5.1.16 Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) of 1974 was established to protect the quality of drinking water in the U.S. This law focuses on all waters actually or potentially designed for drinking use, whether from above ground or underground sources. The SDWA authorizes the USEPA to establish minimum standards to protect tap water and requires all owners or operators of public water systems to comply with these primary (health-related) standards. The USEPA also establishes minimum standards for state programs to protect underground sources of drinking water from endangerment by underground injection of fluids. Under this SDWA, Congress emphasizes preventing contamination of aquifers that are the sole source of drinking water for a community under the SDWA (USEPA 2024c).

The Proposed Project is located in Amador County, within the City's SOI. Designated sole source aquifers in California are located in Fresno County, Scotts Valley, and on the California/Mexico border, none of

which would be in the vicinity of the Proposed Project (USEPA 2024d). Therefore, the SDWA does not apply to the Project.

5.1.17 Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act (16 USC Section 1271 et seq.) establishes the National Wild and Scenic Rivers System (NWSRS) for the protection of certain selected rivers with important scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. These rivers shall be preserved in free-flowing conditions, and they and their immediate environments shall be protected. Rivers are classified as wild, scenic, or recreational. The Wild and Scenic Rivers Act designates specific rivers for inclusion in the NWSRS and prescribes the methods and standards by which additional rivers may be added. Regardless of classification, each river in the NWSRS is administered with the goal of protecting and enhancing the values that caused it to be designated. Designation neither prohibits development nor gives the federal government control over private property. Recreation, agricultural practices, residential development, and other uses may continue. The Wild and Scenic Rivers Act purposefully strives to balance dam and other construction at appropriate sections of rivers with permanent protection for some of the country's most outstanding free-flowing rivers. To accomplish this, it prohibits federal support for actions such as the construction of dams or other instream activities that would harm the river's free-flowing condition, water quality, or outstanding resource values.

There are no wild and scenic rivers within the vicinity of the Proposed Project. The nearest designated wild and scenic river in the NWSRS is the American (Lower) River within Sacramento County, located approximately 48 miles northwest of the City (NWSRS 2024). Therefore, no portion of the Project is located within or near a designated wild and scenic river.

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Appendix B – Biological Resources Assessment for the Jackson Water Tank Replacement Project, ECORP Consulting, Inc., 2024

Appendix C – Cultural Resources Inventory Report (Confidential), ECORP Consulting, Inc., 2024

Appendix D – Jackson Water Tank Replacement Project Energy Consumption Analysis Memorandum, ECORP Consulting, Inc., 2024

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