DRAFT

Initial Study and Mitigated Negative Declaration

Amador Water Agency

Ione WTP Reliability Capacity and Backwash Piping Project

Ione Reliability Capacity Expansion (IONE 1A.8) Ione Site Security & Access Improvements (IONE 1A.4) and Ione Backwash Handling Improvements -IONE 1A.9- Project: WO# 7424107 & 7424108 & 7424109

Lead Agency:

Amador Water Agency
12800 Ridge Road
Sutter Creek, California 95685

Prepared By:

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ENVIRONMENTAL CONSULTANTS
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February 2025

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DRAFT MITIGATED NEGATIVE DECLARATION

Lead Agency: Amador Water Agency

Project Location: The Ione Water Treatment Plant (WTP) is located within the southeastern portion of the City of Ione, south of Old Ione-Jackson Road, northeast of Foothill Boulevard, north of Brickyard Road, and generally west of California State Route 124. The proposed backwash pipeline will run from the existing Ione WTP, south under Highway 104, continuing south between Assessor's Parcel Numbers (APN) 011150021000 and 005130027000, along the east side of the old Ione Racetrack, under Brickyard Road, and west to Highway 124. The pipeline will go under Highway 124 and end at the US Mine parcel. The approximately 10.72-acre Project Area corresponds to a portion of Section 30, Township 6 North, and Range 10 East (Mount Diablo Base and Meridian) and a portion of the Unsectioned Arroyo Seco Land Grant of the *Ione, California* 7.5-minute quadrangle. The approximate center of the Project Area is located at 38.351145° latitude and -120.92725° longitude within the Upper Mokelumne watershed.

Project Description Summary: The Project proposes to repair and/or replace facilities at the existing 2.19 acre Ione WTP due to age deterioration and limited capacity. The project will also include the construction of a new backwash handling 6" pipeline that will run from the Ione WTP south approximately 1.3 miles to the US Mine property.

Public Review Period: **February 27, 2025** through **March 31, 2025**

Mitigation Measures Incorporated into the Project to Avoid Significant Effects:

Biological Resources

BIO-1: **Special-Status Plant Habitat Avoidance.** The following measures shall be implemented to avoid impacts to Special-Status Plant Habitat within the pipeline alignment:

- 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. All Project personnel shall be made aware of the impact limits and avoided areas during construction. No Project-related work shall occur outside of the Project impact limits. All Project-related vehicles and equipment shall be restricted to the Project impact limits or existing environmentally cleared designated access roads and staging areas.

- If suitable habitat for special-status plants cannot be avoided, and if special-status plant surveys for the Project are not current (per the CDFW protocol [CDFW 2018]; surveys are typically considered current if it is within 2-5 years of construction), a preconstruction special-status plant survey shall be conducted according to CDFW, CNPS, and USFWS protocols.
  - Surveys shall be conducted throughout all suitable habitat within the Project impact areas (including all areas with proposed Project ground-disturbing or vegetation-disturbing activities) and a 25-foot buffer to address potential direct and indirect impacts of the Project. Surveys shall be conducted by a qualified biologist and should be timed according to the identifiable period for special-status plant species with potential to occur (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 a special-status plant is identified within or adjacent to the Project impact area, the following shall apply:
  - An impact assessment shall be made by a qualified biologist to determine whether Project-related activities would be significant such that they would have the potential to eliminate, substantially reduce the number of, or restrict the range of the special-status plant species, and/or conflict with any local policies or ordinances protecting special-status plant species. If impacts are determined to be less than significant, no further measures are needed.
    - If potential impacts are determined to be significant, the following shall apply:
      - To avoid the introduction and spread of non-native invasive plant species, clothing, vehicles, and equipment (including shoes, equipment undercarriage and tires/tracks) should be cleaned prior to entering the Project Area and, if invasive plant species are known to occur within the Project Area, prior to entering an area of the Project-site that is free of invasive plants. Materials used for the Project, such as fill dirt or erosion control materials, should be from weed-free locations or certified weed free.
      - The Project shall be modified to the extent feasible to minimize impacts to special-status plants. No-disturbance buffers shall be established around special-status-plants plant populations to be avoided in or adjacent to the Project Area. The no-disturbance buffer shall include the extent of the avoided special-status plants (as determined by a qualified biologist during an appropriate time to identify the plants immediately preceding construction) plus a minimum 25-foot buffer, unless otherwise determined by a qualified biologist. Buffer distances may vary depending upon factors such as species ecology, species rarity, and site-specific conditions. The avoidance area shall be clearly demarcated in the field and demarcation shall be maintained for the duration of Project construction. No vegetation-disturbing

or ground-disturbing activities shall occur within the avoidance area. If other work must occur within the avoidance area, a qualified biologist shall be present for the duration of such work to ensure no impacts occur within the avoidance area.

- A Worker Environmental Awareness Program (WEAP) shall be developed prior to construction to inform workers of avoided special-status plants. A qualified biologist will present the WEAP to all personnel working in the Project Area prior to the start of Project activities. The WEAP may be recorded and used through the duration of construction to train new workers who were absent for the initial WEAP. The WEAP will include, but will not be limited to, species identification, habitat requirements, and the species' protected status. The training shall provide clear instruction that if any workers encounter the special-status plant(s) to be avoided within a new location of the Project impact area, work shall halt within 25-feet of the plants and the biological monitor shall be informed. The Project proponent shall retain logs of personnel who have taken the training for the duration of construction.
- If complete avoidance is not feasible, the agency with jurisdiction (CDFW, USFWS and/or the CEQA Lead Agency) shall be consulted to determine if additional minimization or mitigation measures are required. Additional measures, if needed, shall be developed in consultation with the respective 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. If a plant that is a state or federally listed threatened or endangered plant or is a candidate for state listing is found onsite, the applicant shall consult with CDFW and/or USFWS, as applicable, to determine appropriate avoidance and minimization measures, and an incidental take permit and compensatory mitigation may be required.

BIO-2: **Crotch 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.

If the Crotch bumble bee is legally protected under the California ESA as a Candidate or Listed species and ground-disturbing activities are scheduled to begin between February 1 and October 31, preconstruction surveys shall be conducted by a qualified biologist. Based on CDFW's Survey Considerations for California ESA Candidate Bumble Bee Species, it is recommended that three Crotch bumble bee surveys be conducted at 2-to-4-week intervals during the colony active period (April-August) if possible.

If Crotch bumble bees are detected, any remaining surveys will focus on nest location. If no nests are found but the species is observed during preconstruction surveys, work crews

should be informed of the possibility of Crotch bumble bees or their nests being present onsite. If a Crotch bumble bee is encountered during construction, work shall stop until the individual leaves of its own volition. If an active Crotch 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 (October 31) and/or once the qualified biologist deems the nesting colony is no longer active.

If initial grading is phased or delayed for any reason, preconstruction surveys will be repeated prior to ground-disturbing activities if nesting habitat is still present or has re-established and will be affected.

BIO-3: **Valley Elderberry Longhorn Beetle.** A qualified biologist shall conduct a VELB survey according to USFWS protocols. The survey shall be conducted within the entire pipeline alignment and a 165-foot buffer and potentially within the WTP footprint (if determined necessary). All elderberry shrubs with at least one stem measuring 1.0 inch or greater in diameter at ground level should be identified, mapped, and thoroughly searched for evidence of VELB (i.e., exit holes).

Establish and clearly demarcate (e.g., with high-visibility fencing or flagging) avoidance zones for avoided elderberries prior to construction and maintain until the completion of work activities within 165 feet of the avoided elderberry shrub. Avoidance zones shall include the elderberry shrub plus a 30-foot buffer from the shrub's drip line (i.e., the area of soil and roots located directly under the outer circumference of the shrub's branches). The avoidance zone markers will be installed as close to construction limits as feasible. No ground or vegetation disturbing work may occur within the avoidance zone unless a biological monitor with stop-work authority is present to ensure work does not impact VELB or damage the shrub (including its root zone).

As much as feasible, all activities that could occur within 165 feet of an elderberry shrub will be conducted outside of the flight season of VELB (March through July).

Dust generation will be minimized by applying water during construction activities or by presoaking work areas for all work within 100 feet of elderberry shrubs.

Trimming of avoided elderberry shrubs, if necessary, will take place between November and February and will avoid removal of branches greater or equal to 1-inch diameter. Measures to address regular and/or large-scale maintenance (trimming, application of herbicides or insecticides) shall be established in consultation with the USFWS.

If impacts to elderberry can not be avoided, either section 7 or Section 10 federal ESA Consultation with USFWS on the Project effects to VELB would be intiated. Mitigation would

be determined during the Section 7 consultation process and would be outlined in a USFWS Biological Opinion. Mitigation may include a combination of preservation of elderberry shrubs within onsite or offsite preserves, transplantation of elderberry shrubs from impact areas to onsite preserves, compensatory planting of elderberries and associated native plants, and/or purchase of VELB mitigation credits from a USFWS-approved mitigation bank.

BIO-4: **Nesting Bird Surveys.** 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 100 feet of the Project boundaries, including any temporary disturbance areas. For Swainson's hawk, the preconstruction nesting bird survey shall include accessible areas within 0.25 mile of the Project boundary. For other raptors, the preconstruction nesting bird survey shall include accessible areas within 500 feet of the Project boundary.

If active nests are found, a no-disturbance buffer shall be established around the nest. A qualified biologist, in consultation with the CDFW, shall establish a buffer distance. The buffer shall be maintained until the nestlings have fledged (e.g., are capable of flight and become independent of the nest), to be determined by a qualified biologist. The avoidance buffer can be removed and no further measures are necessary once the young have fledged or the nest is no longer occupied, as determined by a qualified biologist.

BIO-5: **Pallid Bat.** Within 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 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 ½ inch in 24 hours.

Trees with identified bat roosting habitat shall be removed using a two-phase removal process conducted over two consecutive days. 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 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.** If aquatic resources cannot be avoided, 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 (Arid West Region Supplement; USACE 2008). Submit the ARD to the 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.

If aquatic resources cannot be avoided, authorization under the Section 404 of the federal CWA 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. will be developed in consultation with the USACE.

If discharges will occur to Waters of the U.S., Section 401 Water Quality Certification must be obtained from the Regional Water Quality Control Board (RWQCB) before a 404 Permit can be issued. If needed, 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 discharges to Waters of the State but not Water of the U.S. will occur, the applicant shall obtain waste discharge requirements or a waiver of waste discharge requirements from the RWQCB as required pursuant to the Porter-Cologne Water Quality Control Act.

If alteration of the bed, channel, or bank of an intermittent 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 Lake or Streambed Alteration Agreement prior to Project implementation.

Cultural Resources

CUL-1: **Depth Control for Railroad Integrity.** At the location where the pipeline will cross under the Amador Central Railroad, a licensed engineer shall calculate the depth under which the bore should occur to avoid loss of integrity of the railroad grade.

CUL-2: **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 National Historic Preservation Act, 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 (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.

Paleontological Resources

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 AWA 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 AWA resumes work in a location where paleontological remains have been discovered and cleared, AWA will have a paleontologist onsite to confirm that no additional paleontological resources are in the area.

Transportation

TRA-1: **Construction Traffic Management Plan.** If construction activities require roadway closures, a construction traffic management plan (Traffic Plan) shall be prepared, prior to construction, by the Contractor, in coordination with the AWA, California Department of Transportation (if necessary), and the City of Ione. The management plan shall be detailed and comprehensive to adequately mitigate potential conflicts between baseline and construction-related traffic. The Traffic Plan will include, at a minimum, the following measures:

- Adequate off-street worker parking shall be provided along the pipeline route.
- A flagman or signal-controlled one-way traffic-control operation shall be provided where two-way traffic operation is impractical or unsafe.
- Roadway disturbances shall be minimized during non-working hours; open trenches shall be covered with steel plates or by the use of temporary backfill during non-working hours.
- Temporary steel plate trench crossings shall be provided as needed to maintain access to homes, farms, and businesses.
- Construction sites shall be posted with appropriate warning signage at least one week prior to construction to allow local residents to select an alternative travel route.
- Construction staging areas shall be provided to minimize storage of equipment and materials in the traffic lanes.
- All paved surfaces disturbed during construction shall be repaved when work is complete.
- The Contractor shall provide traffic control and diversion plans for review and approval by each appropriate jurisdiction.
- To minimize delays in emergency response during project construction, emergency providers shall be notified in advance. Police, fire protection, and ambulance services shall be notified in advance of the times, duration, and location of construction activities throughout the project's construction process.

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 AWA, 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 AWA, 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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ECORP, Consulting, Inc. – Draft

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ECORP Consulting, Inc., 2025

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ECORP Consulting, Inc., 2025

Appendix E –Noise Impact Memorandum,
ECORP Consulting, Inc., 2025

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
AAD	Amador Air District
AMCRR	Amador Central Railroad Company
ANSI	American National Standards Institute
APN	Assessor's Parcel Number
ARD	Aquatic Resources Delineation
AWA	Amador Water Agency
BCC	USFWS Bird of Conservation Concern
BLS	Basic Life Support
BMP	Best Management Practice
BRA	Biological Resource Assessment
BSA	Biological Study Area
CAA	Clean Air Act

Term	Definition
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH4	methane
CHRIS	California Historical Resources Information System
CLF	Community Leach Field
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalence Levels
CNPS	California Native Plant Society
CO	carbon monoxide
CO2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CWA	Clean Water Act
dB	decibels
dBA	A-weighted decibels
DOC	California Department of Conservation
DPM	diesel particulate matter
DPR	California Department of Parks and Recreation
DTSC	California Department of Toxic Substances Control
EDCAPCD	El Dorado County Air Pollution Control District
EDCAQMD	El Dorado County Air Quality Management District
EIR	Environmental Impact Report
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	greenhouse gas
GIS	Geographic Information Systems
ICPD	Ione City Police Department
IEPR	Integrated Energy Policy Report
IFD	City of Ione Fire Department
IRWMP	Integrated Regional Water Management Plan
IS	Initial Study

Term	Definition
LAFCO	Amador Local Agency Formation Commission
L_{dn}	Day-Night Average
LEA	Local Enforcement Agency
L_{eq}	Equivalent Noise Level
LHMP	Local Hazard Mitigation Plan
LRA	Local Responsibility Area
LUST	leaking underground storage tank
MCAB	Mountain Counties Air Basin
MCV	Manual of California Vegetation
MGD	million gallons per day
MLD	Most Likely Descendant
MND	Mitigated Negative Declaration
mph	Miles Per Hour
MRZ	Mineral Resource Zone
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
NOX	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O_3	Ozone
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
PS	Public Service
ROG	Reactive Organic Gases
ROW	Right-of-Way
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SMARA	Surface Mining and Reclamation Act
SO_2	sulfur dioxide
SOI	Sphere of Influence
SR	State Route
SRA	State Responsibility Area
SSC	California Species of Special Concern
SWPPP	Stormwater Pollution Prevention Plan

Term	Definition
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TCR	Tribal Cultural Resource
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VELB	Valley Elderberry Longhorn Beetle
VHFHSZ	Very High Fire Hazard Severity Zones
VOC	Volatile Organic Compound
WEAP	Worker Environmental Awareness Program
WIRIS	West Ione Roadway Improvement Strategy
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

1.0 BACKGROUND

1.1 Summary

Project Title:

Ione WTP Reliability Capacity and Backwash Piping Project
Ione Reliability Capacity Expansion (IONE 1A.8) Ione Site Security & Access Improvements (IONE 1A.4) and Ione Backwash Handling Improvements -IONE 1A.9- Project: WO# 7424107 & 7424108 & 7424109

Lead Agency Name and Address:

Amador Water Agency
12800 Ridge Road
Sutter Creek, CA 95685

Contact Person and Phone Number:

Brandt Cook
bcook@amadorwater.org

Project Location:

The Ione WTP is located within the southeastern portion of the City of Ione, south of Old Ione-Jackson Road, northeast of Foothill Boulevard, north of Brickyard Road, and generally west of California State Route 124. The proposed backwash pipeline will run from the existing Ione WTP, south under Highway 104, continuing south between parcels APN 011150021000 and 005130027000, along the east side of the old Ione Racetrack, under Brickyard Road, and west to Highway 124. The pipeline will go under Highway 124 and Amador Central Railroad and end at the US Mine parcel. The approximately 10.72-acre Project Area corresponds to a portion of Section 30, Township 6 North, and Range 10 East (Mount Diablo Base and Meridian) and a portion of the Unsectioned Arroyo Seco Land Grant of the *Ione, California* 7.5-minute quadrangle. The approximate center of the Project is located at 38.351145° latitude and -120.92725° longitude within the Upper Mokelumne watershed.

General Plan Designation:

City of Ione – Parks and Rec (PR) and Public Service (PS)

Project Title:	Ione WTP Reliability Capacity and Backwash Piping Project *Ione Reliability Capacity Expansion (IONE 1A.8) Ione Site Security & Access Improvements (IONE 1A.4) and Ione Backwash Handling Improvements -IONE 1A.9- Project: WO# 7424107 & 7424108 & 7424109*
Zoning:	City of Ione – PCS Parks and Community Services and PF Public Facilities

1.2 Introduction

Amador Water Agency (AWA) 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 Ione WTP Reliability and Backwash Piping 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. AWA will use this CEQA Initial Study to determine which CEQA document is appropriate for the Project: Negative Declaration, Mitigated Negative Declaration (MND), or Environmental Impact Report (EIR).

AWA is seeking funding for the Proposed Project under the U.S. Environmental Protection Agency (USEPA) Water Infrastructure Finance Innovation Act. Because of the federal nexus with the USEPA, the project will also be required to prepare a National Environmental Policy Act Environmental Assessment which will be completed as a separate process.

In accordance with CEQA, this 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:

Brandt Cook, Amador Water Agency
12800 Ridge Road, Sutter Creek, CA 95685

2.0 PROJECT DESCRIPTION

2.1 Project Background

The AWA has six drinking water systems within Amador County, which includes The Ione Water System (Ione System) for the City of Ione, California. The Ione System utilizes the Ione Water Treatment Plant (Ione WTP) and a potable distribution system to serve potable water to the City of Ione and the Mule Creek Correctional Facility. The Ione WTP and distribution system is located in the City of Ione in Amador County in North-Central California; Amador County is approximately 30 miles southeast of Sacramento in the Sierra Nevada mountains. AWA's goal is to maintain a high-performing water utility, prepare for planned growth, and deliver high-quality drinking water to County residents. The existing Ione WTP permit allows for a production of 4.0 million gallons per day (MGD) and currently the Ione WTP only has an operational capacity of 2.8 MGD.

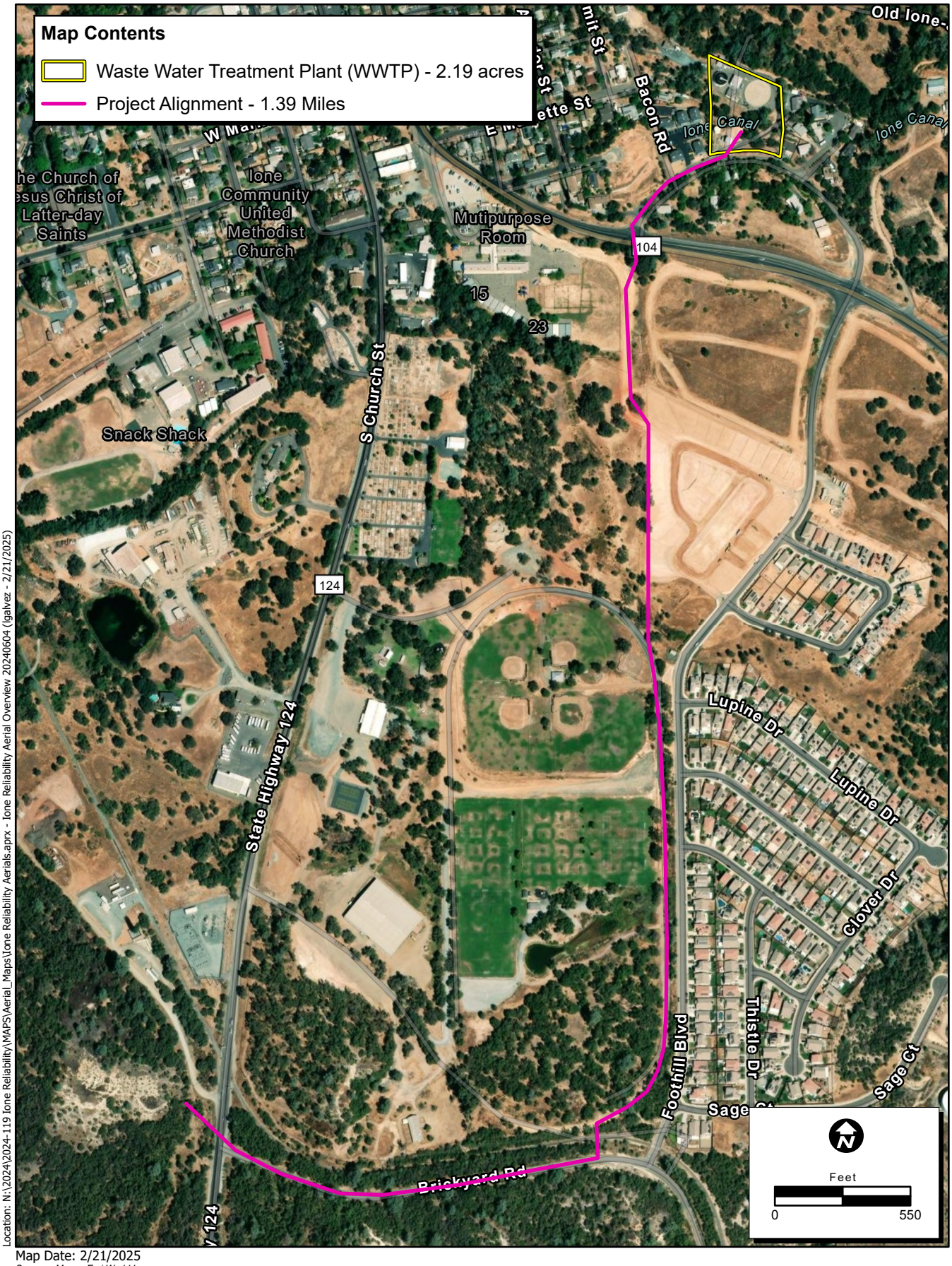
The AWA has completed several studies that have evaluated the performance and condition of the Ione WTP and distribution system. These studies documented several issues at the Ione WTP, including erosion of concrete surfaces, exposed reinforcing steel, expansion joint failures, metal corrosion, cracking and leakage, vegetation buildup, inadequate site security, and surface crazing of concrete. The studies identified that the clearwell liner supports had been displaced by vehicular traffic, and one of the backwash reclaim tanks is leaking at multiple points along its base. In 2016, AWA installed new backwash recycling facilities These facilities comprise two 95,000-gallon welded steel reclaim water tanks, a coagulant dosing system, and a backwash return pump station. As backwash waste enters the tanks, it is dosed with a coagulant to improve the settling of solids. Clear water is then decanted from the upper part of the tanks and returned to the raw water line at the start of the WTP treatment process; this recycle stream is maintained at less than 10% of the total raw water flow through the WTP. The remaining, more concentrated water and settled solids are metered into the wastewater system at a typical rate of 120 gallons per minute (gpm), at an average of 5,000 to 12,000 gallons per day. The older of the two tanks is experiencing corrosion near the base of the tank due to coating failure. As a result, the Agency has reported issues with leaks occurring from the bottom of the older backwash tank.

Additionally, the clarifier has experienced differential settlement, causing uneven loading of the launder, which affects hydraulic performance. Based on these findings, and additional analysis requested by AWA, it was decided to expand and improve the existing Ione WTP and construct a new pipeline to transport backwash offsite for disposal.

2.2 Project Location

The Ione WTP is located within the southeastern portion of the City of Ione, south of Old Ione-Jackson Road, northeast of Foothill Boulevard, north of Brickyard Road, and generally west of California State Route 124. The proposed backwash pipeline will run from the existing Ione WTP, south under Highway 104, continuing south between parcels APN 011150021000 and 005130027000, along the east side of the old Ione Racetrack, under Brickyard Road, and west to Highway 124. The pipeline will go under Highway 124 and Amador Central Railroad and end at the US Mine parcel (see Figure 2-1 Project Location and Vicinity). The approximately 10.72-acre Project Area corresponds to a portion of Section 30, Township 6

North, and Range 10 East (Mount Diablo Base and Meridian) and a portion of the Unsectioned Arroyo Seco Land Grant of the Ione, California 7.5-minute quadrangle. The approximate center of the BSA is located at 38.351145° latitude and -120.92725° longitude within the Upper Mokelumne watershed.



Location: N:\2024\2024-119 Ione Reliability\MAPS\Aerial_Maps\Ione Reliability Aerials.aprx - Ione Reliability Aerial Overview 20240604 (lgalvez - 2/21/2025)

Map Date: 2/21/2025

Sources: Maxar, Esri World Imagery

Figure 2-1. Project Aerial Overview Map

2.3 Project Characteristics

The Project proposes to repair and/or replace facilities at the existing 2.19-acre Ione WTP site due to existing age deterioration and limited capacity. The project will also include the construction of a new backwash handling 6" pipeline that will run from the Ione WTP south approximately 1.3 miles to the US Mine property. Details of these improvements are listed below.

Site Stability and Access Improvements. The proposed improvements to the existing Ione WTP is located on property owned by AWA within the City limits. The project will widen the existing access road approximately 20 feet. The road improvements will require the construction of a retaining wall along the downhill side of the road for nearly the entire length of the access road. The existing ground is too steep, and the property lines are too close to widen the access road using fill slopes. Areas along the north and northeast of the Ione WTP property boundary will be backfilled and paved to match the surrounding grade. These areas were previously unpaved, and this improvement will allow better access and maneuverability for larger vehicles, such as those used to make bulk chemical deliveries to the Ione WTP. The existing retaining wall along the north property boundary will be raised to support the pavement widening. The retaining wall modification may include a portion or the entire wall length. The paved areas east and south of the clearwell and south of the clarifier will need to be reinforced with the addition of borings backfilled with compacted gravel aggregate. Additionally, a reinforced soil retaining wall will be constructed to strengthen a portion of the slope immediately south of the clarifier and permanent erosion mats will be installed in several areas to prevent any slope erosion. (Figure 2-2 Ione WTP Site Layout).

View of the Existing WTP

Pump Station Improvements. The Prison Pump Station will be upgraded to replace its outdated electrical and control system. Electrical and instrumentation equipment will be replaced or rehabilitated as appropriate. (Figure 2-2 Ione WTP Site Layout)

Treatment Process Improvements. A new, packaged treatment unit will be integrated into the WTP. The unit will provide an additional 1 MGD of clarification and filtration capacity. With improved access from the roadway improvements, the unit can be placed near the existing Operations Building using a crane. A waste sump will be installed to receive backwash waste from the packaged treatment unit. The existing backwash pump station will be upgraded with Variable Frequency Drives (VFDs) and new motors to provide filter backwash for the existing gravity filters and the new packaged treatment unit. The time needed to implement this improvement will need to be coordinated with plant operations to avoid interference with the existing plant operations. After stabilizing the southeastern portion of the site, piping for the packaged treatment unit will be constructed. Any suspected pipeline leaks will be

investigated, and repairs will be made. These alterations will also improve the system's hydraulic performance and support the incorporation of new process connections. The clarifier launder and drop box will be improved to remove the hydraulic bottleneck, increasing clarifier performance by an additional 0.3 MGD. Because this will require the clarifier to be taken out of service, this improvement should be one of the final construction steps and be timed during the low-demand period at the WTP. (Figure 2-2 Ione WTP Site Layout)

Backwash System Improvements. Backwash water generated from the existing filter and packaged treatment units will be directed to the newly constructed backwash pipeline and sent to the US Mine parcel where it would be used for dust control. The new 6" pipeline will run from the existing Ione WTP, south under Highway 104, continuing south between parcels APN 011150021000 and 005130027000, along the east side of the old Ione Racetrack, under Amador Central Railroad, under Brickyard Road, and west to Highway 124. The pipeline will go under Highway 124 and end at the US Mine parcel (Figure 2-1 Project Location and vicinity). Backwash water generated at the Ione WTP can be held in the two existing backwash tanks before being discharged into this pipeline. In addition, the backwash water recycling capability of the WTP will be maintained to accommodate interruptions to backwash water diversion for periodic pipeline maintenance. Additionally, the base of the west backwash tank will be rehabilitated with a steel patch to address the tank's corrosion issues, and a new anti-corrosion coating will be applied to the interior and exterior of the tank.

Overview of Pipeline Alignment

Miscellaneous Improvements. Depending on final electrical demands, an additional or upgraded backup generator may be needed. It would be installed next to the existing generator. Additional yard piping upgrades will be made to connect the additional treatment equipment being constructed as part of this project. In addition, the existing operations building will be renovated to include a dedicated chemical feed area, improve the operations and control area, and improve the electrical and control systems in the building. The chemical feed improvements will include the installation of several large chemical storage tanks ranging in size from 1,000 to 3,000 gallons. The increased chemical storage capacity will allow the Ione WTP to receive bulk chemical deliveries to reduce operating costs associated with frequent small-quantity deliveries and accommodate additional quantities necessary to treat an increased volume of water. Upgrades will be made to improve access and safety for vendors transferring chemicals from bulk delivery trucks into the building. Dedicated dosing pumps and transfer piping will be installed in this structure and routed to appropriate dosing points throughout the WTP piping network.

2.4 Site Security

The fence along the property line will be improved and constructed to enclose the perimeter of the Ione WTP to prevent unwarranted access to the facility. A site access gate will also be constructed at the entrance along Foothill Boulevard. It will be motorized with a controlled access entry point. Exterior lighting upgrades will be added to structures at the Ione WTP to improve the quality of life for operators on-site during low-light conditions and increase overall site security. The lighting improvements will include a collection of lights at areas such as the site entrance, building entrances, and the operations area.

2.5 Project Staging

Temporary staging would occur on site at the Ione WTP, within areas that are already paved or highly disturbed.

Map Date: 2/19/2025

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

KELLER ASSOCIATES

Figure 2-2:Ione WTP Site Layout

2024-119 Ione Water Treatment Plant Reliability Capacity and Piping Project

2.6 Project Timing

This schedule may be extended pending approval of the construction contract and issuance of 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.

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)	Approximately 4-5 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	Approximately 3 months
Final Paving Operations	
• Roller compactor(s) • Pavers • asphalt grinders • asphalt cutters • concrete saw • Sweeper	Approximately 1 months
Other Equipment*	
• Sprayers, • air compressor, • portable generator	Approximately 3 months
Total Duration:	**5-6 months**

*Note: Some of these activities will be performed concurrently

2.7 Regulatory Requirements, Permits, and Approvals

- City of Ione – AWA must obtain an encroachment permit from the City of Ione.
- California Regional Water Quality Control Board (RWQCB) - AWA must obtain a National Pollutant Discharge Elimination (NPDES) Construction Activities Stormwater General Permit. The permit requires that the project applicant prepare a Stormwater Pollution Prevention Plan (SWPPP) prior to any construction activities.

- Acquire easements for some ROW through private property, only if needed to complete construction.
- U.S. Fish and Wildlife Service (USFWS): Consultation for endangered species and possible take permits, if needed.
- Section 404 of the Federal Clean Water Act, if needed.
- Section 401 Water Quality Certification, if needed.

2.8 Consultation With California Native American Tribe(s)

AWA has notified the following California Native American tribes traditionally and culturally affiliated with the geographic area of the Proposed Project: United Auburn Indian Community of the Auburn Rancheria, Buena Vista Rancheria of Me-Wuk Indians, and Shingle Springs Band of Miwok Indians. 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.

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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.	☐

_____ Date: _____

Amador Water Agency

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4.0 ENVIRONMENTAL CHECKLIST AND DISCUSSION

4.1 Aesthetics

4.1.1 Environmental Setting

4.1.1.1 Setting

Regional and Local Setting

The City of Ione is located in western Amador County at the juncture of the Sierra Nevada foothills and the Central Valley. Agricultural and grazing land, the rolling terrain of the Sierra Nevada foothills, and the backdrop of the Sierra Nevada generally characterize the visual resources of Amador County. Land uses in the region include urban development within cities and unincorporated communities, orchards, pastures, vineyards, surface mining operations, and dispersed rural residential development.

The City of Ione is a small rural community (approximately five square miles) comprising a commercial core in the downtown area divided along a north-south axis by State Routes (SR) 104 and 124 and on the east-west axis by Sutter Creek. The commercial core is made up of a variety of shops, restaurants, and government offices and features several historic structures.

Visual Character of the Project Site

The Project is located on level to gently rolling terrain in a rural area. The Project area is situated at an elevational range of approximately 365 to 440 feet above Mean Sea Level (MSL) in the Northern Sierra Nevada Foothills District of the Sierra Nevada Region. 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 7.1 miles from the Project.

The Project site is currently occupied by a water-treatment plant, the Ione Racetrack, Charles Howard Park, roads, an active construction site, and undeveloped land. Undeveloped portions of the Project area primarily include annual grassland, interior live oak woodlands, and cattail marsh. Vegetation communities and plant species composition are described in further detail below in Section 4.4, Biological Resources.

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 State Route 88 from the Dew Drop Ranger Station, east to the Alpine County Line (Caltrans 2024).

Highway 49, that bisects the City of Jackson, has been designated as eligible to be a scenic highway. The Project is approximately 6.5 miles away from Highway 49.

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:

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 Ione General Plan does not specifically designate any scenic corridors within the city. However, it does mention a variety of significant visual features within the community. These include rivers and waterways, agricultural lands, tree resources, railroads, and mining operations that are both within the City limits, but also within the City of Ione Planning Area boundary.

The two main water features that flow intermittently through the City of Ione area are Sutter Creek, which meanders through the center of town from east to west, and Mule Creek, which flows north to south along the western boundary of the city. These two creeks converge into Dry Creek, west of the city. The creeks and their associated riparian habitat provide views of the most prominent natural communities within the city. Between these two creeks, Sutter Creek is closer and is approximately 0.3 miles north of the Project Site, just northeast of the Ione Water Treatment Plant.

The Amador Central Railroad, which the Project proposes to bore under, is maintained by the Amador County Historical Society and the Red Rock Canyon Historical Society. The railroad does not transport anymore but does provide private tours (Amador Central Railroad Company [AMCRR] 2025).

4.1.2 Regulatory Setting

4.1.2.1 Local

City of Ione General Plan

The City of Ione General Plan was adopted by the City Council in August 2009 (City of Ione 2009). The City General Plan is a policy document designed to give long-range guidance regarding the growth and resources within the City and its Sphere of Influence (SOI). The relevant policy from the Ione General Plan related to visual resources and the proposed project is listed below:

Goal CO-9: Protect open space areas, including preservation of scenic views.

4.1.3 Aesthetics (I) Environmental Checklist and Discussion

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

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. While there are no officially designated scenic vistas surrounding the Project Site, there are views of the nearby Sierra Nevada to the east and natural rolling terrain and agricultural lands to the north, west, and south, all of which are important components of the regions visual character.

The Project proposes to repair and/or replace facilities at the existing 2.19 acre Ione WTP site due to age deterioration and limiting capacity. The project will also include the construction of a new backwash handling 6" pipeline that will extend from the Ione WTP south approximately 1.3 miles to the US Mine property. Any impacts to a scenic vista would be temporary during pipeline construction activities. All improvements to the WTP would be minor and would not impact any vistas. Once the proposed Project is completed, there would be no change in the visual character or quality of public views of the site. Therefore, implementation of the proposed Project would have a less than significant impact to visual scenic vistas.

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

No Impact.

There are no officially or eligible designated state or county scenic highways or any highways eligible for such designation within or proximate to the proposed Project. Therefore, implementation of the proposed Project would not have the potential to impact scenic resources within a scenic highway and there would be no impact.

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, residential community (see Figure 2-1). Project construction activities would introduce equipment, including light trucks, backhoes, winch, bursting head, generator, and other similar machinery into the viewshed of all viewer groups, creating temporary effects on views of and from the Project Site during construction. Once the proposed Project is completed there will be no change in the visual character or quality of public views of the site and surroundings and the Project would not conflict with zoning and other regulations governing scenic quality. 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
d) Would the Project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Less Than Significant Impact.

The Project proposes to repair and/or replace facilities at the existing 2.19 acre Ione WTP site due to age deterioration and limiting capacity. The project will also include the construction of a new backwash handling 6" pipeline that will extend from the Ione WTP south approximately 1.3 miles to the US Mine property. Once construction of the pipeline installation and the improvements to the WTP are complete, any additional light or glare from construction activities would be removed. New exterior lighting upgrades will be added to structures at the Ione WTP to improve the quality of life for operators on-site during low-light conditions and increase overall site security. The lighting improvements will include a collection of lights at areas such as the site entrance, building entrances, and the operations area. However, the new lighting would be restricted to just the WTP, which is a private facility. The new lighting would not impact day or nighttime views of the area. Therefore, any impacts would be less than significant.

4.1.4 Mitigation Measures

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

4.2 Agriculture and Forestry Resources

4.2.1 Environmental Setting

Amador County

According to the 2022 Census of Agriculture, Amador County has approximately 445 farms, with a total of 132,565 acres in production. The county's primary crops, in terms of number of acres planted, are grapes, forage (hay, grass silage, and greenchop), English walnuts, wheat for grain, and corn for grain. The county's primary livestock items are cattle/calves, layers (hens), ducks, goats, and sheep/lambs (U.S. Department of Agriculture 2022).

City of Ione

Agricultural uses in and around the City of Ione have historically been limited to the production of corn. Within the larger Planning Area, farmland is limited to native pasture (dry), irrigated pasture, small grains such as wheat and barley, and field crops such as sugar beets, alfalfa, safflower, beans, and corn. In general, soils in the city and surrounding area do not possess characteristics favorable to agricultural production. Limiting factors include steep slopes, shallow soils, high erosion potential, poor drainage, a high percentage of stones and rocks in the soil profile, low water-holding capacity, low fertility, poor soil structure, and damage caused by flooding (City of Ione 2009).

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

The California Department of Conservation 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:

- 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 California Department of Conservation (DOC) online Important Farmland Finder Map (DOC 2025a), the proposed Project and the surrounding area is classified as both Grazing Land and Urban and Built-Up Land.

4.2.1.3 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.

There are lands within the City of Ione (or Planning Area) that are under the Williamson Act, but the proposed Project site is not zoned for agriculture or forestry use and is not under Williamson Act contract (DOC 2025b).

4.2.2 Regulatory Setting

4.2.2.1 Local

City of Ione General Plan

The City of Ione General Plan was adopted by the City Council in August 2009. The City General Plan is a policy document designed to give long-range guidance regarding the growth and resources within the City and its SOI. The relevant policy from the Ione General Plan related to agricultural and forestry resources and the proposed project is listed below:

Goal CO-10: Conserve agricultural resources within and around the City and promote development which does not interfere with ongoing agricultural operations.

Policy CO-10.1: Ensure minimal loss of agricultural lands within the Ione Planning Area through preservation of existing lands and through mitigation measures where necessary.

Policy CO-10.2: The City shall not approve projects resulting in the loss of prime agricultural lands unless it makes findings that the benefits of the project outweigh the impacts associated with the loss of such agricultural lands.

Policy CO-10.5: The City shall not support the development or conversion of any parcel subject to a Williamson Act contract until said contract has been terminated through the nonrenewal method pursuant to Government Code Section 51245.

4.2.3 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 Site as Grazing Land and Urban-Built Up 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 site and surrounding parcels are not under Williamson Act contracts (DOC 2025b). The Proposed Project would not conflict with existing zoning for agricultural uses or a Williamson Act contract.

Implementation of the proposed Project would not change the existing use of the Project Site 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.

4.2.4 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 within the City of Ione. 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 the County's boundary with Sacramento County.

4.3.2 Ambient Air Quality

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

The 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	Marginal Nonattainment

Table 4.3-1. Attainment Status of Criteria Pollutants in the Amador County Portion of the MCAB		
Pollutant	**State Designation**	**Federal Designation**
PM_{10}	Unclassified	Unclassified
$PM_{2.5}$	Unclassified	Unclassified/Attainment
CO	Unclassified	Unclassified/Attainment
NO_2	Attainment	Unclassified/Attainment
SO_2	Attainment	Unclassified/Attainment

Note: CO = Carbon Monoxide; NO_2 = Nitrogen Dioxide; O_3 = Ozone; $PM_{2.5}$ = Fine Particulate Matter' PM_{10} = Coarse Particulate Matter; SO_2 = Sulfur dioxide

Source: California Air Resources Board (CARB) 2023, MCAB = Mountain Counties Air Basin; U.S. Environmental Protection Agency (USEPA) 2024a

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 2023; USEPA 2024an).

4.3.3 Regulatory Setting

4.3.3.1 Amador Air District

The air quality regulating authority in the City of Ione is the AAD. The AAD responsibilities include managing air resources of the 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).

4.3.3.2 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 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 USEPA's General Conformity Guidance: Questions and Answers (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 the following:

- 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 Federal Highway Administration or Federal Transit Administration (40 CFR 93.153(c)).

4.3.3.3 Thresholds of Significance

4.3.3.4 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 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. AAD Rule 500 Thresholds of Significance	
Pollutant	**Significance Threshold (pounds/day)**
ROG	274
NO_x	274
PM_{10}	384
$PM_{2.5}$	–
CO	548
SO_2	548

Note: CO = Carbon Monoxide; $PM_{2.5}$ = Fine Particulate Matter; PM_{10} = Coarse Particulate Matter; SO_2 = Sulfur dioxide
Source: Amador Air District (AAD) 2001

4.3.3.5 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/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; NO_2 = Nitrogen Dioxide; NO_x = Nitrogen Oxide; $PM_{2.5}$ = Fine Particulate Matter; PM_{10} = Coarse Particulate Matter; SO_2 = Sulfur dioxide; VOC = Volatile Organic Compound
Source: U.S. Environmental Protection Agency (USEPA) 2024b

4.3.4 Air Quality (III) Environmental Checklist and Discussion

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

No Impact.

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 interior clarifier launder at the existing Ione WTP, add an additional 1 MGD worth of relocatable filtration, upgrade the existing Backwash Pumping, , electrical system and controls upgrades, install a retaining wall south of the clarifier to support filtration, widen and straighten a driveway, install a retaining wall to support the driveway widening, replace a pipeline for the retaining wall installation, install fencing, and lay new backwash pipeline to the US Mine property. The new backwash pipeline would remove the existing need for truck trips to ship the backwash offsite. In summary, the Project includes improvements required to allow the existing Ione WTP to reliably provide its current committed water production capacity and a new pipeline to transfer backwash offsite. Therefore, the Proposed Project would not conflict with or obstruct regional air quality planning and there is no impact. 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.

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.

4.3.4.1 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 particulate matter 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 nitrogen oxide (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 gas (ROG) emissions.

Construction-generated emissions associated with the Proposed Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See Appendix A for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

AAD Significance Thresholds

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 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 AAD's Rule 500.

Table 4.3-4. Construction-Related Criteria Air Pollutant Emissions (AAD Conformity Determination Analysis)

Project Phase	Pollutant (maximum pounds per day)					
	ROG	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Construction Year One	4.62	37.40	45.60	0.07	9.08	4.95
Significance Thresholds[1]	*274 pounds/day*	*274 pounds/day*	*548 pounds/day*	*548 pounds/day*	*384 pounds/day*	-
Exceed Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: AAD = Amador Air District; CO = Carbon Monoxide; NO_x = Nitrogen Oxide; $PM_{2.5}$ = Fine Particulate Matter; PM_{10} = Coarse Particulate Matter; ROG = Reactive Organic Gas; SO_2 = Sulfur dioxide
Construction emissions taken from the season (summer or winter) with the highest output.
[1] Significance thresholds for ROG, NO_x, CO, SO_2, and PM_{10} are based on the definition of a "major source" derived from 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 the County is only classified marginal nonattainment.
Source: California Emissions Estimator Model (CalEEMod) Version 2022.1.1. Refer to Appendix A for Model Data Outputs.

As shown, construction would not exceed any significance thresholds derived from 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. El Dorado County Air Quality Management District's (EDCAPCD's) *Guide to Air Quality Assessment* (EDCAPCD 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 the City of Ione, 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.

USEPA Conformity Determination

As previously described, the Proposed Project is located in the Amador County region, which is designated as a nonattainment area for the federal O_3 standard. Emissions generated during Project implementation would be short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the Conformity Determination thresholds. Predicted maximum annual construction-generated emissions for the Proposed Project are summarized in Table 4.3-6 and compared against the USEPA Conformity Determination thresholds.

Table 4.3-5. Construction-Related Criteria Air Pollutant Emissions (USEPA Conformity Determination Analysis)

Construction Year	Pollutant (tons per year)				
	VOC (ROG)	NOX	CO	PM_{10}	$PM_{2.5}$
Construction Year One	0.27	2.15	2.62	0.24	0.14
USEPA Conformity Determination Thresholds (40 CFR 93.153)	*50*	*50*	*100*	*100*	*100*
Exceed USEPA Conformity Determination Thresholds?	**No**	**No**	**No**	**No**	**No**

Note: CFR = Code of Federal Regulations; CO = Carbon Monoxide; NO_x = Nitrogen Oxide; $PM_{2.5}$ = Fine Particulate Matter; PM_{10} = Coarse Particulate Matter; ROG = Reactive Organic Gas; USEPA = U.S. Environmental Protection Agency; VOC = Volatile Organic Compound

Source: California Emissions Estimator Model (CalEEMod) version 2022.1.1. Refer to Appendix A for Model Data Outputs.

As shown in Table 4.3-5, emissions from construction of the Proposed Project would not exceed the USEPA Conformity Determination thresholds for the region.

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

4.3.4.2 Project Operational Emissions

The Proposed Project includes improvements required to allow the existing Ione WTP to reliably provide its current committed water production capacity and a new pipeline to transfer backwash to the US Mine property. The amount of water pumped would not increase beyond existing conditions and the new pipeline would remove the need for truck trips to transfer backwash offsite. Therefore, there are no new operational emissions associated with the Proposed Project.

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 75 feet to the east of the proposed pipeline alignment.

4.3.4.3 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 2023). Thus, existing levels of this pollutant are at unhealthy levels during certain periods in the MCAB. However, shown in Table 4.3-4 and Table 4.3-5, construction-related emissions would not result in an exceedance of the significance thresholds derived from AAD's Rule 500 or the USEPA Conformity Determination thresholds for the region. 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 or the USEPA Conformity Determination thresholds for the region, 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.

Carbon Monoxide 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 or the USEPA Conformity Determination thresholds for the region, which are set to be protective of human health and account for cumulative emissions in the Amador County portion of the MCAB. Thus, the Project's CO emissions would not contribute to the health effects associated with this pollutant.

Particulate matter (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 ROG 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.

4.3.4.4 Operational Air Contaminants

Operation of the Proposed Project would not change existing activities in the Project Area. 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 to odor emissions.

Land uses commonly considered to be potential sources of obnoxious odorous emissions include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Proposed Project does not 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.

4.3.5 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 2025b, Appendix B). The Project area is referred to below as the BSA.

4.4.1 Environmental Setting

A Biological Resource Evaluation (BRA) was drafted for the proposed project that include all the potential backwash pipeline alternatives. However, this will only discuss/evaluate the preferred alignment as included in the project description.

The Biological Study Area (BSA) includes all areas where Project-related activities may result in impacts to sensitive biological resources. The BSA comprises the approximately 2.19-acre Project Area where the

WTP improvements will occur and the three proposed Pipeline Alignment Alternatives. The BSA includes a 15-foot buffer on either side of the centerline of each Pipeline Alignment Alternative.

The approximately 10.72-acre BSA corresponds to a portion of Section 30, Township 6 North, and Range 10 East (Mount Diablo Base and Meridian) and a portion of the Unsectioned Arroyo Seco Land Grant of the *Ione, California* 7.5-minute quadrangle. The approximate center of the BSA is located at 38.351145° latitude and -120.92725° longitude within the Upper Mokelumne watershed (Hydrological Unit Code 18040012).

The BSA is located on level to gently rolling terrain in a rural area. The BSA is situated at an elevational range of approximately 365 to 440 feet above MSL in the Northern Sierra Nevada Foothills District of the Sierra Nevada Region of the California Floristic Province.

4.4.1.1 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 E of Appendix B.

Annual Grassland

A small section of annual grassland is found in the central portion of the BSA crossing the pipeline alignment. The annual grassland in the BSA is dominated by nonnative annual grasses including wild oat (*Avena fatua*), Italian ryegrass (*Festuca perennis*), and medusahead grass (*Elymus caput-medusae*). Patches of coyote brush (*Baccharis pilularis*) are scattered throughout the grassland.

The annual grassland within the BSA most resembles the *Avena* spp. – *Bromus* spp. Herbaceous Semi-Natural Alliance as characterized by the Manual of California Vegetation (MCV). 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.

Cattail Marsh

The cattail marsh community is found within an intermittent drainage in the central portion of the BSA within the pipeline alignment Alternatives associated with a drainage. The cattail marsh in the BSA is dominated by broad-leaf cattail (*Typha latifolia*) with scattered smartweed (*Persicaria* sp.).

The cattail marsh community in the BSA most resembles the *Typha* (*angustifolia, domingensis, latifolia*) Herbaceous Alliance as characterized by the MCV. The alliance has a state rarity ranking of S5 and is not considered a sensitive natural community. The cattail marsh within the BSA does not resemble any known sensitive associations.

Interior Live Oak Woodland

Interior live oak woodland is found at the western end of the pipeline alignment within the BSA. Within the BSA, the interior live oak woodland is dominated by interior live oak (*Quercus wislize*ni) with gray pine (*Pinus sabiniana*), common manzanita (*Arctostaphylos manzanita*), and valley oak (*Quercus lobata*) present at lower cover in the canopy. The shrub layer is dominated by coyote brush and California yerba santa (*Eriodictyon californicum*). The herbaceous understory is composed of nonnative annual grasses of similar composition to the annual grassland found onsite.

The interior live oak woodland most resembles the *Quercus wislizeni – Quercus parvula* (*tree*) Forest & Woodland Alliance, as characterized by the MCV. This alliance has a state rarity rank 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.

Disturbed Interior Live Oak Woodland

The disturbed interior live oak woodland is found in the BSA within the WTP and within the pipeline alignment. These areas are dominated by interior live oak. The herbaceous understory has been highly disturbed by grading, recreational use, and/or landscaping. Due to the level of disturbance, the understory is either devoid of vegetation or composed of scattered ruderal vegetation including Canada horseweed (*Erigeron canadensis*), hairy cat's ear (*Hypochaeris radicata*), and nonnative annual grasses.

The disturbed interior live oak woodland most resembles the *Quercus wislizeni – Quercus parvula* (*tree*) Forest & Woodland Alliance, as characterized by the MCV. This alliance has a state rarity rank of S4 and is not considered a sensitive natural community. The disturbed interior live oak woodland within the BSA does not resemble any known sensitive associations.

Developed/Disturbed

The disturbed or developed land cover type is found within the Project Area and within the Pipeline Alignment and include paved roads, a water treatment plant, other structures, the Ione Racetrack, and an active construction site. These areas were primarily devoid of vegetation or contained sparse ruderal vegetation, including Canada horseweed, hairy cat's ear, French broom (*Genista monspessulana*), panicled willow herb (*Epilobium brachycarpum*), and sharp-leaved fluellin (*Kickxia elatine*). These areas also contained scattered trees, including interior live oak.

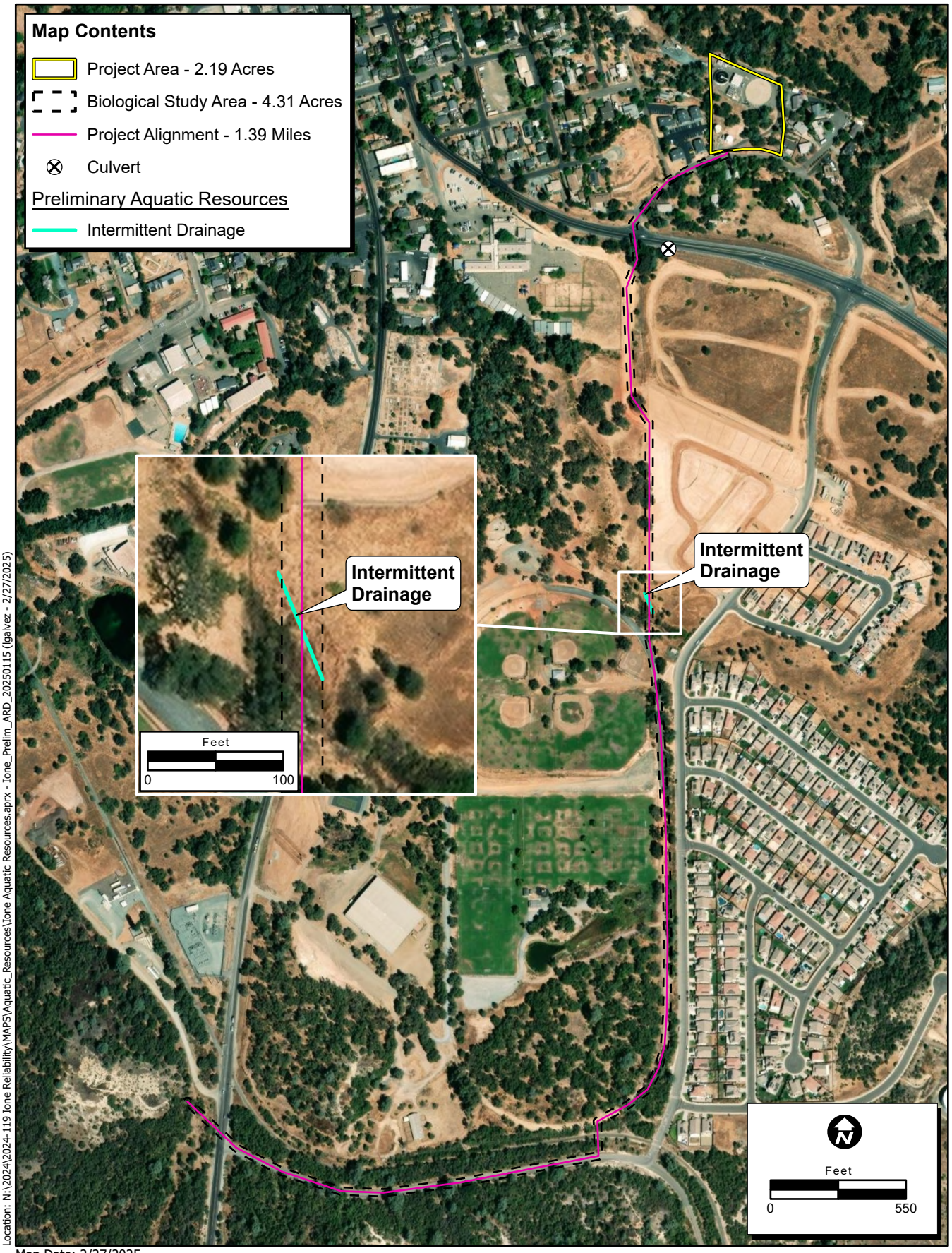
Developed/disturbed is not a vegetation community and does not have a state or global rarity ranking.

4.4.1.2 Aquatic Resources

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 an intermittent drainage (Figure 4.4-1). The intermittent drainage crosses the preferred pipeline alignment and is a linear drainage feature that supports seasonal flows from precipitation and urban runoff. It is approximately 10 feet wide with steeply eroded banks. Dominant plants observed within this feature include broad-leaf cattail and smartweed.

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 Riverine feature that overlaps the eastern border of the Project Area. This feature would have been directly impacted by residential development and likely no longer exists.

Note that the NWI inventory mapping is a national dataset 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, on-the-ground inspection of a particular study area is needed to confirm wetland boundaries and classifications



Location: N:\2024\2024-119 Ione Reliability\MAPS\Aquatic_Resources\Ione Aquatic Resources.aprx - Ione_Prelim_ARD_20250115 (lgalvez - 2/27/2025)

Map Date: 2/27/2025

Sources: SRI, Maxar (2023)

Disclaimer: This exhibit is intended for general planning purposes and is not intended to support regulatory permitting. The potential aquatic resources depicted in this exhibit have not been delineated in accordance with USACE standards.

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 4.4-1 Preliminary Aquatic Resources Assessment

2024-119 Ione Reliability

4.4.1.3 Wildlife

The BSA provides habitat for a variety of wildlife species. Wildlife species observed onsite include acorn woodpecker (*Melanerpes formicivorus*), black phoebe (*Sayornis nigricans*), California scrub-jay (*Aphelocoma californica*), and mule deer (*Odocoileus hemionus*). Other species typically associated with the habitat types found in the BSA and not observed during the site reconnaissance include western fence lizard (*Sceloporus occidentalis*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), house finch (*Haemorhous mexicanus*), deer mouse (*Peromyscus maniculatus*), striped skunk (*Mephitis mephitis*), coyote (*Canis latrans*), little brown bat (*Myotis lucifugus*), and big brown bat (*Eptesicus fuscus*). A full list of wildlife species observed in the BSA is provided in Appendix B.

4.4.1.4 Special-Status Species

Appendix G of the BRA (Appendix B, ECORP 2025b) provides a list of all the special-status plant and wildlife species identified as potentially occurring within the BSA. This list was created based on a review of literature and database searches including the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database, California Native Plant Society (CNPS) Rare Plant Inventory, U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation, and National Marine Fisheries Service Resources data, as further described in Appendix B. This provides the listing status for each species, a brief habitat description, and a determination on the potential to occur within the BSA. The following sections briefly describe and discuss the special-status species that are either listed or are candidates for listing under the California or federal ESAs and could potentially occur within the BSA.

Plants

Based on the literature review, 27 special-status plant species were identified as having the potential to occur in the vicinity of the BSA (Table 2 within Appendix B). However, upon further analysis and after the site visit, 17 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 10 species that have potential to occur within the BSA is presented below.

Ione Manzanita

Ione manzanita is listed as threatened pursuant to the federal Endangered Species Act (ESA), is not listed pursuant to the California ESA, and is designated as a California Rare Plant Rank (CRPR) 1B.2 species. This perennial evergreen shrub occurs in chaparral and cismontane woodlands associated with very acidic, nutrient-poor, and coarse soils that are typical of the Ione Formation. Ione manzanita blooms from November through March and is known to occur at elevations that range from 195 to 1,905 feet above MSL. Ione manzanita is endemic to California; the current range for this species includes Amador and Calaveras counties.

There are four documented California Natural Diversity Database (CNDDB) occurrences of Ione manzanita within 5 miles of the BSA. The interior live oak woodlands within the BSA represent suitable habitat for this species. Ione manzanita has potential to occur onsite. However, this species was not observed in the

Project Area during 2024 special-status plant surveys at the WTP site. The Pipeline Alignment was not included in this survey.

Big-Scale Balsamroot

Big-scale balsamroot is not listed pursuant to the federal or California ESAs but is designated as a 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 that range 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 are no documented CNDDB occurrences of big-scale balsamroot within 5 miles of the BSA. The only occurrence in the vicinity of the BSA is presumed historic and has not been observed for over 129 years (CDFW 2024a). However, the annual grassland and interior live oak woodlands within the BSA represent marginally suitable habitat for this species. Big-scale balsamroot has low potential to occur onsite. However, this species was not observed in the Project Area during 2024 special-status plant surveys. The proposed Pipeline Alignment was not included in this survey.

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 annual grassland and interior live oak woodlands within the BSA represent marginally suitable habitat for this species. Brassy bryum has low potential to occur onsite. This species was not included as a target in the 2024 special-status plant surveys as the surveys targeted vascular plants only.

Hoover's Calycadenia

Hoover's calycadenia is not listed pursuant to the federal or California ESAs but is designated as a CRPR 1B.3 species. This plant is an herbaceous annual that occurs in rocky soils in cismontane woodland and valley and foothill grassland. Hoover's calycadenia blooms from July through September and is known to occur at elevations that range from 215 to 985 feet above MSL. Hoover's calycadenia is endemic to California; the current range for this species includes Calaveras, Madera, Merced, Mariposa, San Joaquin, and Stanislaus counties.

There are no documented CNDDB occurrences of Hoover's calycadenia within 5 miles of the BSA. The annual grassland and interior live oak woodlands within the BSA represent suitable habitat for this species. Hoover's calycadenia has potential to occur onsite. However, this species was not observed in the Project

Area during 2024 special-status plant surveys. The proposed pipeline alignment was not included in this survey.

Spicate Calycadenia

Spicate calycadenia is not listed pursuant to the federal or California ESAs but is designated as a CRPR 1B.3 species. This species is an herbaceous annual that occurs on adobe, clay, disturbed, dry, gravelly, roadside, opening, and rocky areas of cismontane woodland and valley and foothill grasslands. Spicate calycadenia blooms from March through September and is known to occur at elevations that range from 130 to 4,595 feet above MSL. This species is endemic to California; the current range includes Amador, Butte, Calaveras, El Dorado, Fresno, Kern, Nevada, Placer. Sacramento, San Joaquin, Stanislaus, Tulare, Tuolumne, and Yuba Counties).

There are two documented CNDDB occurrences of spicate calycadenia within 5 miles of the BSA (CDFW 2024a). The annual grassland and interior live oak woodlands within the BSA represent suitable habitat for this species. Spicate calycadenia has potential to occur onsite. However, this species was not observed in the Project Area during 2024 special-status plant surveys at the WTP site. The proposed pipeline alignment was not included in this survey.

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 at seeps and streambanks 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 is one documented CNDDB occurrence of Stanislaus monkeyflower within 5 miles of the BSA. This occurrence overlaps the BSA, however it was mapped in a non-specific area that is historic and has not been observed in 103 years. However, the intermittent drainage within the BSA represents marginally suitable habitat for this species. Stanislaus monkeyflower has low potential to occur onsite. This species was not included as a target in the 2024 special-status plant surveys at the WTP site but suitable habitat is present in the proposed pipeline alignment.

Parry's Horkelia

Parry's horkelia is not listed pursuant to 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 that are typical of the Ione Formation. Parry's horkelia blooms from April through September and is known to occur at elevations that range 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 seven documented CNDDB occurrences of Parry's horkelia within 5 miles of the BSA. The interior live oak woodlands within the BSA represent suitable habitat for this species. Parry's horkelia has

potential to occur onsite. However, this species was not observed in the Project Area during 2024 special-status plant surveys at the WTP site. The proposed pipeline alignment was not included in this survey.

Foothill Jepsonia

Foothill jepsonia is not listed pursuant to 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. Foothill jepsonia blooms from August through December and is known to occur at elevations that range 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 (CDFW 2024a). The interior live oak woodlands within the BSA represent suitable habitat for this species. Foothill jepsonia has potential to occur onsite. However, this species was not observed in the Project Area during 2024 special-status plant surveys at the WTP site. The proposed Pipeline Alignment was not included in this survey.

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 intermittent drainage within the BSA represents suitable habitat for this species. Legenere has potential to occur onsite. This species was not included as a target in the 2024 special-status plant surveys at the WTP site but suitable habitat is present in the proposed Pipeline Alignment.

Sanford's Arrowhead

Sanford's arrowhead (*Sagittaria sanfordii*) is not listed pursuant to the federal or California ESAs, but is designated as a CRPR 1B.2 species. This species is a perennial rhizomatous herb that occurs in shallow, freshwater marshes and swamps. Sanford's arrowhead blooms from May through October, and is known to occur at elevations ranging from sea level to 2,135 feet above MSL. Sanford's arrowhead is endemic to California; the current range of this species includes Butte, Del Norte, El Dorado, Fresno, Kings, Los Angeles, Madera, Marin, Mariposa, Merced, Napa, Orange, Sacramento, San Bernardino, San Joaquin, San Mateo, Santa Clara, Shasta, Solano, Sutter, Tehama, Tulare, Ventura, and Yuba counties; it is presumed extirpated in Ventura County.

There are no documented CNDDB occurrences of Sanford's arrowhead within 5 miles of the BSA. The intermittent drainage within the BSA represents suitable habitat for this species. Sanford's arrowhead has potential to occur onsite. This species was not included as a target in the 2024 special-status plant surveys at the WTP site but suitable habitat is present in the proposed pipeline alignment.

Invertebrates

Based on the literature review, five special-status invertebrate species were identified as having the potential to occur in the vicinity of the BSA (Table 2 within Appendix B). 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. No further discussion of these species is provided in this assessment. A brief description of the remaining two species that have the potential to occur within the BSA is presented below.

Crotch's Bumble Bee

The Crotch bumble bee (*Bombus crotchii*) is a candidate for listing as endangered under the California ESA. The historic range of the Crotch 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.

The Crotch 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. Plant families most commonly associated with Crotch bumble bee include Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae. The species primarily nests underground. 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 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 is California is from late March through September with peak abundance in early July.

There are no documented CNDDB occurrences of Crotch bumble bee within 5 miles of the BSA. The annual grassland and interior live oak woodlands within the BSA represent marginally suitable nesting and foraging habitat for this species. Crotch bumble bee has low potential to occur onsite.

Valley Elderberry Longhorn Beetle

The valley elderberry longhorn beetle (VELB; *Desmocerus californicus dimorphus*) is listed as threatened pursuant to the federal ESA. The VELB is completely dependent on its host plant, elderberry, which occurs in riparian and other woodland and scrub communities. Elderberry plants, located within the range of the beetle, with one or more stems measuring 1.0 inch or greater in diameter at ground level are considered to be habitat for the species. The adult flight season extends from late March through June. The adults feed on foliage and perhaps flowers, mate, and females lay eggs on living elderberry plants during that time. The first instar larvae bore into live elderberry stems, where they develop for 1 to 2 years feeding on the pith. The fifth instar larvae create exit holes in the stems and then plug the holes and remain in the stems through pupation. The beetle's current distribution is patchy throughout California's Central Valley,

from Shasta County to Kern County, and associated foothills up to an elevation of approximately 3,000 feet.

There is one documented CNDDB occurrence of VELB within 5 miles of the BSA. One elderberry shrub is present within the proposed pipeline alignment and an additional elderberry shrub was observed within 165 feet of the BSA (Figure 4.4-2). These elderberry shrubs represent suitable habitat for this species. VELB has potential to occur onsite.

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 2 of Appendix B). However, upon further analysis and after the site visit, all four 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, two special-status reptile species were identified as having the potential to occur in the vicinity of the BSA (Table 2 of Appendix B). However, upon further analysis and after the site visit, one species was presumed to be absent from the BSA due to the lack of suitable habitat and because the BSA is outside the known geographical range for the species. A brief description of the remaining species that has the potential to occur within the BSA is presented below.

Northwestern Pond Turtle

The northwestern pond turtle (*Actinemys marmorata*) is proposed for listing as Threatened pursuant to the federal ESA and is considered a Species of Special Concern (SSC) by CDFW. The range of the northwestern pond turtle in California extends from the Coast Ranges on the Oregon border southward to Marin County, throughout the lower elevations and foothills of the southern Cascades and Sierra Nevada Mountains, and within the Sacramento and San Joaquin Valleys. The elevation range for the species extends from near sea level to 4,690 feet (1,430 m).

They can occur in a variety of waters including ponds, lakes, streams, reservoirs, rivers, settling ponds of wastewater treatment plants, and other permanent and ephemeral wetlands. However, in streams and other lotic features they generally require slack- or slow-water aquatic microhabitats. Northwestern pond turtles also require basking areas such as logs, rocks, banks, and brush piles for thermoregulation. Nesting sites for pond turtles are typically located in annual grasslands adjacent to a watercourse with little slope and hard, dry soil. Nesting habitat soils typically display high clay or silt fraction, with few nests located in sandy soils. Nests are usually within 400m of a watercourse, with the majority being within 50m of the water's edge.

There is one documented CNDDB occurrence of northwestern pond turtle within 5 miles of the BSA. There is no suitable aquatic habitat for this species within the BSA.

Birds

Based on the literature review, 24 special-status bird species were identified as having potential to occur in the vicinity of the BSA (Table 2). Upon further analysis and after the site visit, 16 of those species are considered to be absent from the BSA due to the lack of suitable habitat or because the BSA is outside of the geographic range for the species. No further discussion of those species is provided in this assessment. A brief description of the remaining eight species that have potential to occur within the BSA is presented below.

Swainson's Hawk

The Swainson's hawk (*Buteo swainsoni*) is listed as a threatened species and are protected pursuant to the California Endangered Species Act. This species nests in North America (Canada, western U.S., and Mexico) and typically winters from South America north to Mexico. However, a small population has been observed wintering in the Sacramento-San Joaquin River Delta. In California, the nesting season for Swainson's hawk ranges from mid-March to late August.

Swainson's hawks nest in tall trees in a variety of wooded communities including riparian, oak woodland, roadside landscape corridors, urban areas, and agricultural areas, among others. Foraging habitat includes open grassland, savannah, low-cover row crop fields, and livestock pastures. In the Central Valley, Swainson's hawks typically feed on a combination of California vole (*Microtus californicus*), California ground squirrel (*Otospermophilus beecheyi*), ring-necked pheasant (*Phasianus colchicus*), many passerine birds, and grasshoppers (*Melanoplus* species). Swainson's hawks are opportunistic foragers and will readily forage in association with agricultural mowing, harvesting, discing, and irrigating. The removal of vegetative cover by such farming activities results in more readily available prey items for this species.

There are no documented CNDDB occurrences of Swainson's hawk within 5 miles of the BSA. The BSA is at the eastern limits of this species' nesting distribution in the Central Valley. However, the interior live oak woodlands within the BSA represent marginally suitable nesting habitat and the annual grassland within the BSA represents limited foraging habitat for this species. Swainson's hawk has low potential to occur onsite.

Western Screech-Owl

The western screech-owl (*Megascops kennicottii*) is a USFWS Bird of Conservation Concern (BCC) but is not listed pursuant to the state or federal ESAs. The western screech-owl can be found throughout the western U.S. In California, they are absent from higher mountain regions, the Mohave Desert, Salton Sea Basin, and urbanized areas in coastal Ventura and San Diego counties. They are found in a wide variety of habitats with deciduous trees such as riparian, desert, and oak and pine-oak woodlands. Western screech-owls nest in cavities, most commonly excavated by woodpeckers, but will also use natural cavities and nest boxes. Breeding occurs from March through July.

There are no documented CNDDB occurrences of western screech-owl within 5 miles of the BSA. The trees within the BSA represent suitable nesting habitat for this species. Western screech-owl has potential to occur onsite.

Nuttall's Woodpecker

The Nuttall's woodpecker (*Dryobates nuttallii*) is not listed and protected under either state or federal ESAs but is considered a USFWS 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. The trees within the BSA represent 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. The trees within the BSA represent suitable nesting habitat for this species. Yellow-billed magpie has potential to occur onsite.

Oak Titmouse

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

There are no documented CNDDB occurrences of oak titmouse within 5 miles of the BSA. The trees within the BSA represent suitable nesting habitat for this species and this species was observed during the site reconnaissance. Oak titmouse is present onsite.

Wrentit

The wrentit (*Chamaea fasciata*) is not listed in accordance with either the California or federal ESAs but is designated as a BCC by the USFWS. Wrentit are a sedentary resident along the west coast of North

America from the Columbia River south to Baja California. Wrentit are found in coastal sage scrub, northern coastal scrub, and coastal hard and montane chaparral, and breed in the dense understory of valley oak riparian, Douglas fir and redwood forests, early successional forests, riparian scrub, coyote bush, blackberry thickets, suburban parks, and larger gardens. Nesting occurs from March through August.

There are no documented CNDDB occurrences of wrentit within 5 miles of the BSA. The small Himalayan blackberry (*Rubus armeniacus*) thickets within the BSA represent marginally suitable nesting habitat for this species. Wrentit has low potential to occur onsite.

Wrentit

The wrentit (*Chamaea fasciata*) is not listed in accordance with either the California or federal ESAs but is designated as a BCC by the USFWS. Wrentit are a sedentary resident along the west coast of North America from the Columbia River south to Baja California. Wrentit are found in coastal sage scrub, northern coastal scrub, and coastal hard and montane chaparral, and breed in the dense understory of valley oak riparian, Douglas fir and redwood forests, early successional forests, riparian scrub, coyote bush, blackberry thickets, suburban parks, and larger gardens. Nesting occurs from March through August.

There are no documented CNDDB occurrences of wrentit within 5 miles of the BSA. The small Himalayan blackberry (*Rubus armeniacus*) thickets within the BSA represent marginally suitable nesting habitat for this species. Wrentit has low potential to occur 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. The weedy patches within the interior live oak woodlands within the BSA represents 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. The trees within the BSA represent suitable nesting habitat for this species. Bullock's oriole has potential to occur onsite.

Special-Status Mammals

Based on the literature review, one special-status mammal species were identified as having potential to occur in the vicinity of the BSA (Table 2 within Appendix B). A brief description of this species is presented below.

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) rocky arid deserts and canyonlands, shrub-steppe grasslands, karst formations, and higher elevation coniferous forest (above 7,000 feet). 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. Pallid bats are feeding generalists that glean 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 within 5 miles of the BSA. The trees within the BSA represent suitable roosting habitat for this species. Pallid bat has potential to occur onsite.

4.4.1.5 Critical Habitat or Essential Fish Habitat

There is no designated critical habitat mapped within the BSA.

There is no anadromous fish critical habitat within the *Ione, California* 7.5-minute quadrangle. Essential Fish Habitat for chinook salmon has the potential to occur in the *Ione, California* 7.5-minute quadrangle. However, there is no suitable habitat for special-status fish within the BSA. Therefore, there is no anadromous fish critical habitat or Essential Fish Habitat present within the BSA.

4.4.1.6 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 an Essential Habitat Connectivity area, is not a small natural area that could support ecological value, and is not a natural habitat block.

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 or expected to occur. Due to the high level of disturbance and development within the BSA, it is unlikely for the BSA to serve as a potential wildlife movement corridor

for terrestrial wildlife species. However, roadside and rural/residential portions of the BSA have the potential to support cover, foraging and breeding habitat for common and some special-status resident wildlife species.

4.4.1.7 Protected Trees

An arborist survey has been conducted for the Ione WTP site only. A total of 70 protected trees were present in the WTP only, 31 of which are considered Heritage Trees. An arborist survey has not been conducted for the preferred pipeline alignment ; however, additional trees are present within this alignment. Impacts to Protected Trees as defined by the Ione Municipal Code would require a tree permit.

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.

4.4.1.8 Special-Status Plants

The BSA supports potential habitat for special-status plants within the pipeline alignment as identified in Table 2. One of these species, Ione manzanita, is listed pursuant to the federal ESA. No special-status plants are known to occur onsite; however, protocol-level surveys have been conducted for the Project Area only and not for the Pipeline Alignment Alternatives. If a special-status plant occurs in or near the Project development area, Project direct impacts could include damage or loss of individual plants and Project indirect impacts could include loss of suitable habitat, disturbance from human encroachment, and changes in habitat quality due to introduction or spread of non-native invasive plants, alteration of hydrology, erosion, and transport of soil, debris or pollutants into occupied habitat from adjacent Project areas. With implementation of Mitigation Measure BIO-1, impacts to Special-Status Plants would be less than significant.

4.4.1.9 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 Bumble Bee to a less than significant impact.

Two elderberry shrubs were observed either within the BSA or within 165 feet of the BSA during the site reconnaissance. No VELB or evidence of VELB presence (i.e., exit holes) were observed, however protocol-level VELB surveys have not been conducted. Ground and vegetation disturbance may damage or kill the shrubs and thus impact VELB. Therefore, with implementation of Mitigation Measure BIO-3, impacts to the VELB would be less than significant.

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

The BSA contains suitable nesting and/or wintering and foraging habitat for several special-status birds and other birds protected under the California Fish and Game Code and MBTA. If Project-related activities occur during the nesting season, the removal of active nests or disruption of nesting activities could lead to "take" of a protected bird, or an active nest with eggs or young, which would be considered a significant impact under CEQA. To minimize impacts to protected birds and active nests, the Project shall implement Mitigation Measure BIO-4. With mitigation incorporated, impacts would be less than significant.

4.4.1.11 Pallid Bat and Other Day-Roosting Bats

Pallid bat and other species of day-roosting bats have the potential to occur within suitable day-roosting habitat within mature trees within the BSA. 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. Impacts to special-status bats and maternity roost sites may be considered significant under CEQA. Implementation of Mitigation Measure BIO-5, which would require preconstruction nesting bird surveys, impacts to special-status birds and nesting birds would be less than significant.

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.

Based on the literature review, two sensitive natural communities were identified as having the potential to occur within the BSA: Ione chaparral and Northern Hardpan Vernal Pool. These sensitive natural

communities were determined to be absent from the BSA during the site reconnaissance and no other sensitive natural communities were determined to occur within the BSA. 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 resource within the BSA is considered potential jurisdictional waters of the U.S. and/or the State, and as such, is regulated by Sections 404 and 401 of the Clean Water Act and/or Porter-Cologne Water Quality Control Act. The intermittent drainage in the BSA is also subject to regulation under Section 1602 of the California Fish and Game Code. This feature could be directly or indirectly impacted by Project activities. Direct impacts to aquatic resources would include any grading, trenching, excavation, or placement of temporary or permanent fill within a regulated feature. 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 establishes 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.

There are no wildlife movement corridors or wildlife nursery sites present within the BSA. Project implementation may temporarily disturb and displace wildlife from the BSA. Some wildlife such as birds or nocturnal species are likely to continue to use the habitats opportunistically for the duration of construction. Therefore, the Project is not expected to substantially interfere with wildlife movements, wildlife corridors or nursery sites and 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
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐

Less Than Significant Impact.

The Project is required to comply with Chapter 8.20 of the Ione Municipal Code. If the Project proposes to impact protected trees, the Project would be required to obtain a tree permit from the City of Ione. Therefore, any impact would be less than significant.

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 BSA is not covered by any local, regional, or state conservation plans. Therefore, the Project would not conflict with any plans.

4.4.2 Mitigation Measures

BIO-1: **Special-Status Plant Habitat Avoidance.** The following measures shall be implemented to avoid impacts to Special-Status Plant Habitat within the pipeline alignment:

- 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. All Project personnel shall be made aware of the impact limits and avoided areas during construction. No Project-related work shall occur outside of the Project impact limits. All Project-related vehicles and equipment shall be restricted to the Project impact limits or existing environmentally cleared designated access roads and staging areas.
- If suitable habitat for special-status plants cannot be avoided, and if special-status plant surveys for the Project are not current (per the CDFW protocol [CDFW 2018]; surveys are typically considered current if it is within 2-5 years of construction), a preconstruction special-status plant survey shall be conducted according to CDFW, CNPS, and USFWS protocols.
  - Surveys shall be conducted throughout all suitable habitat within the Project impact areas (including all areas with proposed Project ground-disturbing or vegetation-disturbing activities) and a 25-foot buffer to address potential direct and indirect

impacts of the Project. Surveys shall be conducted by a qualified biologist and should be timed according to the identifiable period for special-status plant species with potential to occur (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 a special-status plant is identified within or adjacent to the Project impact area, the following shall apply:
  - An impact assessment shall be made by a qualified biologist to determine whether Project-related activities would be significant such that they would have the potential to eliminate, substantially reduce the number of, or restrict the range of the special-status plant species, and/or conflict with any local policies or ordinances protecting special-status plant species. If impacts are determined to be less than significant, no further measures are needed.
    - If potential impacts are determined to be significant, the following shall apply:
      - To avoid the introduction and spread of non-native invasive plant species, clothing, vehicles, and equipment (including shoes, equipment undercarriage and tires/tracks) should be cleaned prior to entering the Project Area and, if invasive plant species are known to occur within the Project Area, prior to entering an area of the Project-site that is free of invasive plants. Materials used for the Project, such as fill dirt or erosion control materials, should be from weed-free locations or certified weed free.
      - The Project shall be modified to the extent feasible to minimize impacts to special-status plants. No-disturbance buffers shall be established around special-status-plants plant populations to be avoided in or adjacent to the Project Area. The no-disturbance buffer shall include the extent of the avoided special-status plants (as determined by a qualified biologist during an appropriate time to identify the plants immediately preceding construction) plus a minimum 25-foot buffer, unless otherwise determined by a qualified biologist. Buffer distances may vary depending upon factors such as species ecology, species rarity, and site-specific conditions. The avoidance area shall be clearly demarcated in the field and demarcation shall be maintained for the duration of Project construction. No vegetation-disturbing or ground-disturbing activities shall occur within the avoidance area. If other work must occur within the avoidance area, a qualified biologist shall be present for the duration of such work to ensure no impacts occur within the avoidance area.
      - A Worker Environmental Awareness Program (WEAP) shall be developed prior to construction to inform workers of avoided special-status plants. A qualified biologist will present the WEAP to all personnel working in the Project Area prior to the start of Project activities. The WEAP may be

recorded and used through the duration of construction to train new workers who were absent for the initial WEAP. The WEAP will include, but will not be limited to, species identification, habitat requirements, and the species' protected status. The training shall provide clear instruction that if any workers encounter the special-status plant(s) to be avoided within a new location of the Project impact area, work shall halt within 25-feet of the plants and the biological monitor shall be informed. The Project proponent shall retain logs of personnel who have taken the training for the duration of construction.

- If complete avoidance is not feasible, the agency with jurisdiction (CDFW, USFWS and/or the CEQA Lead Agency) shall be consulted to determine if additional minimization or mitigation measures are required. Additional measures, if needed, shall be developed in consultation with the respective 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. If a plant that is a state or federally listed threatened or endangered plant or is a candidate for state listing is found onsite, the applicant shall consult with CDFW and/or USFWS, as applicable, to determine appropriate avoidance and minimization measures, and an incidental take permit and compensatory mitigation may be required.

BIO-2: **Crotch 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.

If the Crotch bumble bee is legally protected under the California ESA as a Candidate or Listed species and ground-disturbing activities are scheduled to begin between February 1 and October 31, preconstruction surveys shall be conducted by a qualified biologist. Based on CDFW's Survey Considerations for California ESA Candidate Bumble Bee Species, it is recommended that three Crotch bumble bee surveys be conducted at 2-to-4-week intervals during the colony active period (April-August) if possible.

If Crotch bumble bees are detected, any remaining surveys will focus on nest location. If no nests are found but the species is observed during preconstruction surveys, work crews should be informed of the possibility of Crotch bumble bees or their nests being present onsite. If a Crotch bumble bee is encountered during construction, work shall stop until the individual leaves of its own volition. If an active Crotch 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

(October 31) and/or once the qualified biologist deems the nesting colony is no longer active.

If initial grading is phased or delayed for any reason, preconstruction surveys will be repeated prior to ground-disturbing activities if nesting habitat is still present or has re-established and will be affected.

BIO-3: **Valley Elderberry Longhorn Beetle.** A qualified biologist shall conduct a VELB survey according to USFWS protocols. The survey shall be conducted within the entire pipeline alignment and a 165-foot buffer and potentially within the WTP footprint (if determined necessary). All elderberry shrubs with at least one stem measuring 1.0 inch or greater in diameter at ground level should be identified, mapped, and thoroughly searched for evidence of VELB (i.e., exit holes).

Establish and clearly demarcate (e.g., with high-visibility fencing or flagging) avoidance zones for avoided elderberries prior to construction and maintain until the completion of work activities within 165 feet of the avoided elderberry shrub. Avoidance zones shall include the elderberry shrub plus a 30-foot buffer from the shrub's drip line (i.e., the area of soil and roots located directly under the outer circumference of the shrub's branches). The avoidance zone markers will be installed as close to construction limits as feasible. No ground or vegetation disturbing work may occur within the avoidance zone unless a biological monitor with stop-work authority is present to ensure work does not impact VELB or damage the shrub (including its root zone).

As much as feasible, all activities that could occur within 165 feet of an elderberry shrub will be conducted outside of the flight season of VELB (March through July).

Dust generation will be minimized by applying water during construction activities or by presoaking work areas for all work within 100 feet of elderberry shrubs.

Trimming of avoided elderberry shrubs, if necessary, will take place between November and February and will avoid removal of branches greater or equal to 1-inch diameter. Measures to address regular and/or large-scale maintenance (trimming, application of herbicides or insecticides) shall be established in consultation with the USFWS.

If impacts to elderberry can not be avoided, either section 7 or Section 10 federal ESA Consultation with USFWS on the Project effects to VELB would be initiated. Mitigation would be determined during the consultation process and would be outlined in a USFWS Biological Opinion. Mitigation may include a combination of preservation of elderberry shrubs within onsite or offsite preserves, transplantation of elderberry shrubs from impact areas to onsite preserves, compensatory planting of elderberries and associated native plants, and/or purchase of VELB mitigation credits from a USFWS-approved mitigation bank.

BIO-4: **Nesting Bird Surveys.** 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 100 feet of the Project boundaries, including any temporary disturbance areas. For Swainson's hawk, the preconstruction nesting bird survey shall include accessible areas within 0.25 mile of the Project boundary. For other raptors, the preconstruction nesting bird survey shall include accessible areas within 500 feet of the Project boundary.

If active nests are found, a no-disturbance buffer shall be established around the nest. A qualified biologist, in consultation with the CDFW, shall establish a buffer distance. The buffer shall be maintained until the nestlings have fledged (e.g., are capable of flight and become independent of the nest), to be determined by a qualified biologist. The avoidance buffer can be removed and no further measures are necessary once the young have fledged or the nest is no longer occupied, as determined by a qualified biologist.

BIO-5: **Pallid Bat.** Within 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 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 ½ inch in 24 hours.

Trees with identified bat roosting habitat shall be removed using a two-phase removal process conducted over two consecutive days. 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 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.** If aquatic resources cannot be avoided, 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 (Arid West Region Supplement; USACE 2008). Submit the ARD to the 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.

If aquatic resources cannot be avoided, authorization under the Section 404 of the federal CWA 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. will be developed in consultation with the USACE.

If discharges will occur to Waters of the U.S., Section 401 Water Quality Certification must be obtained from the Regional Water Quality Control Board (RWQCB) before a 404 Permit can be issued. If needed, 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 discharges to Waters of the State but not Water of the U.S. will occur, the applicant shall obtain waste discharge requirements or a waiver of waste discharge requirements from the RWQCB as required pursuant to the Porter-Cologne Water Quality Control Act.

If alteration of the bed, channel, or bank of an intermittent 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 Lake or Streambed Alteration Agreement prior to Project implementation.

4.5 Cultural Resources

ECORP Consulting, Inc. prepared a Cultural Resources Inventory Report (ECORP 2025c) 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.

4.5.1 Environmental Setting

Amador County is located almost entirely within the Sierra Nevada geomorphic province. From the Sacramento Valley eastward, the Sierra Nevada gradually rises to the glaciated crest near Mokelumne Peak and Thimble Peak, both of which are higher than 9,000 feet. The valley has a dry climate during the summer and a wet climate during the winter. The nearest natural water source to the Project Area is Sutter Creek, which is located less than 0.5 mile to the north. With such a significant range in elevation, the Sierra Nevada has a diverse landscape, supporting a wide variety of plant and animal life. Elevations within the Project Area itself range from 360 to 420 feet above mean sea level.

4.5.1.1 Regional History

In 1540, the Viceroy of New Spain, Antonio de Mendoza, commissioned maritime explorer Hernando de Alarcón to chart the Gulf of California and the Colorado River. Alarcón and his crew became the first Europeans to reach Alta (Upper) California when they set foot on the banks of the Colorado River in what is now Imperial County. In 1542, Juan Rodriguez Cabrillo and his crew, sailing north up the Pacific coast of Mexico in search of the Strait of Anián, became the first Europeans to explore the Alta California coastline. Cabrillo landed at San Diego Bay, Santa Catalina Island, and at San Pedro Bay, and may have reached as far north as Point Reyes. In 1579, the English privateer Francis Drake visited Miwok villages north of San Francisco Bay. Sebastian Vizcaíno, sailing north from Mexico, charted Monterey Bay in 1602.

Spanish colonization of Alta California began in 1769 with the Portolá land expedition. Led by Gaspar de Portolá and Junipero Serra, the expedition proceeded north from San Diego on foot. From a hilltop above the Santa Clara Valley, an advance party of scouts led by José Ortega became the first Europeans to observe San Francisco Bay. Spain subsequently established a string of 21 Franciscan missions, 4 presidios (forts), and 4 pueblos (towns) in coastal regions of Alta California. In 1808, the explorer Gabriel Moraga led an expedition from San Jose pueblo into the Central Valley. Moraga named the valley's major rivers, including the Sacramento and San Joaquin, but made no attempt to establish missions, presidios, or pueblos in Alta California's interior.

The Republic of Mexico achieved independence from Spain in 1821. A year later, Alta California became a territory of Mexico with its capital at Monterey. In 1827, the American fur trapper Jedediah Smith led a party of Rocky Mountain Fur Company trappers across the Mojave Desert to Southern California, north up

the Central Valley, and east into Nevada, demonstrating the possibility of overland travel across the Sierra Nevada.

During the 1830s, the Mexican government confiscated mission lands and expelled Alta California's Franciscan friars. Former mission lands, along with lands in the Sacramento and San Joaquin valleys, became granted to retired soldiers and other Mexican citizens. Vast swaths of Alta California's coastal regions and interior valleys became private *ranchos*, or cattle ranches. Three of the region's Spanish pueblos—Los Angeles, San José, and Sonoma—survived as Mexican towns. Other settlements developed around presidios at San Francisco, Monterey, Santa Barbara, and San Diego. Many rancho owners, called *californios*, maintained residences in town, while hired vaqueros and unpaid Native American laborers worked on ranchos to produce cow hides and tallow, commodities prized by foreign merchants.

After 1821, the Mexican government began welcoming non-Hispanic immigrants to Alta California. Hundreds of Americans, British, and other foreigners arrived to establish trading relationships; others became naturalized Mexican citizens and applied for land grants. John Sutter, a German-speaking immigrant from Switzerland, built a fort at the confluence of the Sacramento and American rivers in 1839 and petitioned the Mexican governor of Alta California for a land grant; he received nearly 49,000 acres along the Sacramento River in 1841.

Following the Mexican-American War of 1846-1848, Mexico ceded Alta California to the United States. Under the Treaty of Guadalupe Hidalgo, Congress agreed to honor the private property of former Mexican citizens living within the new boundaries of the United States. This meant recognizing Alta California's Mexican land grants. In 1851, Congress passed the California Land Act creating the Board of Land Commissioners to determine the validity of individual grants, placing the burden of proof on patentees. The Board, with assistance from U.S. courts, confirmed most of California's Mexican land grants in subsequent decades.

In January 1848, one of John Sutter's hired laborers, James Marshall, discovered gold in the flume of a lumber mill at Coloma on the South Fork of the American River. News of Marshall's discovery spread around the world, leading to the 1849 California Gold Rush. Tens of thousands of prospectors arrived in the Sierra Nevada foothills, prompting the creation of hundreds of small mining camps along streambeds. The cities of Marysville, Sacramento, and Stockton sprang up along the Feather, Sacramento, and San Joaquin rivers as supply centers for the mines; San Francisco became California's largest city and major port of entry. In 1850, following a year of rapid growth, Congress admitted California as the 31st U.S. state. In the following decades, federal surveyors arrived in California to stake out 36-square-mile townships and 1-square-mile sections on California's unclaimed (i.e., non-rancho) public lands. At general land offices, buyers paid cash for public lands. After 1862, many filed homestead applications to obtain 40, 80, and 160-acre tracts at low upfront costs in exchange for establishing farms.

José María Amador, the descendent of a prominent *californio* family, discovered gold along a foothill stream between the Cosumnes and Mokelumne rivers in 1848. The stream became known as *Amador Creek* and its nearby mining camp became *Amador City*. When the California Legislature divided Calaveras County along the Mokelumne River in 1854, all lands north of the river became *Amador County* with the mining camp of Jackson as its county seat. Other Gold Rush mining camps, including Plymouth, Ione, and

Sutter Creek, also survived as permanent towns. After the Gold Rush, logging, farming, and ranching joined gold mining as leading industries in Amador County. The Amador Branch Railroad, a Central Pacific Railroad subsidiary, built east from Galt and reached Ione in 1876. In 1904, the Ione & Eastern Railroad extended the Amador Branch from Ione to Martell, a town near Jackson. During the 1920s, California highway officials graded and paved a string of foothills wagon roads as the *Mother Lode Highway* (now SR-49). In Amador County, the Mother Lode Highway linked the towns of Plymouth, Amador City, Sutter Creek, Martel, and Jackson with other foothills towns. Sand and gravel mining, winter sports, viticulture, and tourism became important industries during the 20th century.

4.5.1.2 Amador County and Ione Area History

Amador County was formed in 1854, when it was separated from Calaveras County after a vote that approved dividing Calaveras County along the Mokelumne River. Amador County was named for Jose Maria Amador, who owned the San Ramon land grant in Contra Costa County and formerly served as mayordomo of Mission San Jose. 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. The county's original northern boundary was Dry Creek and was later extended to the Cosumnes River. Amador County lost its easternmost territory with the creation of Alpine County in 1864.

The Project Area lies within the boundaries of the City of Ione, which was incorporated in 1953, in the fertile Ione Valley. Ione is the name of the heroine from the 1834 novel *The Last Days of Pompeii* by Bulwer-Lytton, and which some believe inspired the city's name. Ione was a supply town initially, not a gold town, and the town expanded alongside the growth of agriculture throughout the state. The first school and church buildings were constructed in 1852. Ione began as a supply center, stage and rail stop, and agricultural hub around 1849. Its population grew steadily after the gold rush, reaching roughly 600 people by 1876. A rail line connecting the town was also completed that same year, and was celebrated as part of a centennial celebration. This celebration was the first Ione Homecoming/Ione Annual Picnic, an annual celebration that continues to this day.

Several famous and lucrative mines are located near Jackson, neighboring city to Ione, including the Jackson Gate, the Kennedy, and the Argonaut mines, about one mile north of Jackson. The lucrative gold mines were a part of the most productive district of the Mother Lode belt, producing more than $180 million in gold. Operations at the Kennedy Mine began in 1856 and continued until the beginning of World War II. The Kennedy Mine in nearby Jackson, was one of the deepest gold mines in the United States, reaching 5,912 vertical feet. It also featured a 100-stamp mill. The Kennedy, Argonaut, Keystone, and Plymouth mines were the largest and most productive mines in Amador County.

4.5.1.3 Ione Racetrack

The Ione racetrack was built for the first fair held in October 1887. The original construction included a 150-foot-long grandstand and buildings for up to 100 racehorses, where were stabled there year round, next to the racetrack. The racehorses that ran here came from as far away as England. The one-mile track

had a reputation for being one of the fastest in California and was known for its "spring bottom track" because boughs and trees were cut, laid out along the track, and then covered with dirt. This created a springing sensation for the riders because the dirt never became tightly compacted.

The Ione Racetrack was built on land owned by Charles Howard, and the Howard Estate leased the land to the city in 1967. The City used the land to create Charles Howard Park, which was dedicated as a local historical landmark in 1979 by the Native Sons/Daughters of the Golden West (About Ione). Charles Howard Park encompasses the former racetrack, as well as Hughes Memorial Arena, and associated community facilities. Since its creation in 2001, the Ione Homecoming or Ione Annual Picnic A fair, horse barrel races, rodeos, and shows, are held nearly every year in May at Charles Howard Park within the Ed Hughes Memorial Arena located west of the Ione Racetrack within the park. The Hughes Memorial Arena has been the central location for major celebrations, including the Ione Annual Picnic since it was completed in 2001, and hosts horse racing, horse shows, equestrian related events, and other private and public events.

4.5.1.4 Amador Central Railroad

Jackson Dennis formed the Ione and Eastern Railway Company in 1904 and sold bonds to finance the railroad. Shortly thereafter, grading and construction began in 1905. The Ione and Eastern Railway Company advertised the line as a means of transporting freight and passengers twice per day between Ione and Martell Station. Martell Station was located in Martell, approximately 6 miles northeast of the Project Area. From this connection, Amador County residents could travel by train from Martell to San Francisco or the East Coast. The Ione and Eastern Railway Company eventually defaulted on the bonds in 1908 and was then incorporated as the Amador Central Railroad Company.

The railroad was not profitable during its first 5 years of operation; the California Railroad Commission recommended purchasing an additional engine, which was the turning point that the company needed. The AMCRR brought new business to and increased the capacity of existing businesses. In 1907, the Ione Fire Brick Company built a plant next to the railroad, which further increased production and distribution of goods.

During World War I, gold mining was considered a nonessential service; therefore, gold shipping ceased, which caused profits to decrease. Copper ore and fire brick were in high demand during those years; therefore, decreases in profit were somewhat mitigated by the sale of other commodities. In 1932, the AMCRR altered their services to no longer include transporting passengers. In the same year, an application was submitted to abandon the Amador Central Railroad though the application was later suspended. In 1934, new tracks were constructed, repairs were made, and a new station was built in Martell; after the mines reopened, approximately 20 cars were shipped daily.

The mines closed again at the start of World War II. In 1945, the Winton Lumber Company purchased the railroad, along with diesel engines, and replaced both the wooden turntables with steel and the rail with heavier components. Between 1964 and 1966, the Winton Lumber Company, along with the railroad, was purchased by the American Forest Products, who then implemented a track improvement program to upgrade the rails. In 1988, American Forest Products was then purchased by Georgie Pacific Industries.

That same year, Georgie Pacific Industries leased it to SierraPine, who renamed it Amador Foothills Railroad. The lease was not renewed in 2004. Also in 2004, SierraPine petitioned to discontinue service, which was passed in 2008. In 2010, 10 miles of rail from Ione to Martell was sold to the Amador County Historical Society and the Red Rock Canyon Historical Society.

4.5.2 Research Methods

4.5.2.1 Records Search Methods

ECORP requested a records search for the Ione WTP Area at the North Central Information Center (NCIC) of the California Historical Resources Information System (CHRIS) at California State University, Sacramento on June 4, 2024. The purpose of the records search was to determine the extent of previous surveys within a 1-mile (1,600-meter) radius of the Proposed Project Area and whether previously documented pre-contact or historic archaeological sites, architectural resources, or traditional cultural properties exist within this area. NCIC staff completed and returned the records search to ECORP on June 4, 2024.

Following the record search for the WTP Area, AWA expanded the Project Area to include the Pipeline Alignment Alternates; therefore, ECORP requested an additional record search from the NCIC on December 10, 2024 to cover the Pipeline Alignment Alternates plus a 0.5-mile radius. NCIC staff completed and returned the additional record search on December 10, 2024.

In addition to the official records and maps for archaeological sites and surveys in Amador County, ECORP reviewed the following historic references: Built Environment Resource Directory for Amador County; the National Register Information System; Office of Historic Preservation, California Historical Landmarks; California Points of Historical Interest; Caltrans Local Bridge Survey; Caltrans State Bridge Survey; and *Historic Spots in California*.

Other references examined include a RealQuest Property Search and historic General Land Office land patent records. ECORP reviewed the following maps:

- 1889, 1892, 1897, and 1902 USGS Jackson, California topographic quadrangle maps (1:125,000 scale)
- 1944, 1941, and 1957 USGS Sutter Creek, California topographic quadrangle maps (1:62,500 scale)
- 1962 USGS Ione, California topographic quadrangle map (1:24,000 scale)

ECORP reviewed aerial photographs taken in 1940, 1959, 1966, 1984, 1998, 2005, and 2009, and every other year between 2010 and 2024, for any indications of Project Area usage and built environment.

ECORP also conducted a search for a local historical registry.

4.5.2.2 Sacred Lands File Coordination Methods

In addition to the records search, ECORP contacted the California Native American Heritage Commission (NAHC) on June 11, 2024 to request a search of the Sacred Lands File for the Project Area. This search determines whether the California Native American tribes within the Project Area have recorded Sacred Lands because the Sacred Lands File is populated by members of the Native American community with knowledge about the locations of tribal resources. In requesting a search of the Sacred Lands File, ECORP solicited information from the Native American community regarding Tribal Cultural Resources (TCRs), but the responsibility to formally consult with the Native American community lies exclusively with the federal and local agencies under applicable state and federal laws. The lead agencies do not delegate government-to-government authority to any private entity to conduct tribal consultation.

4.5.2.3 Other Interested Party Consultation Methods

ECORP emailed a letter to the Amador County Historical Society on June 7, 2024 to solicit comments or obtain historical information that the repository might have regarding events, people, or resources of historical significance in the area.

4.5.2.4 Field Methods

ECORP subjected the entire Project Area to an intensive pedestrian survey: the WTP Area on June 12, 2024, and the Pipeline Alignment Alternates on December 18, 2024. ECORP conducted the survey following the *Secretary of the Interior's Standards for the Identification of Historic Properties* using 15-meter transects. At the time, ECORP archaeologists examined the ground surface for indications of surface or subsurface cultural resources and inspected the general morphological characteristics of the ground surface for indications of subsurface deposits that may be manifested on the surface, such as circular depressions or ditches. Whenever possible, the archaeologists examined the locations of subsurface exposures caused by such factors as rodent activity, water or soil erosion, or vegetation disturbances for artifacts or for indications of buried deposits. ECORP did not conduct any subsurface investigations or artifact collections during the pedestrian survey.

Standard professional practice requires that all cultural resources encountered during the survey be recorded using Department of Parks and Recreation (DPR) 523-series forms approved by the California Office of Historic Preservation. The resources are usually photographed, mapped using a handheld Global Positioning System receiver, and sketched as necessary to document their presence using appropriate DPR forms.

4.5.3 Research Results

The 2024 ECORP records search and field survey found five cultural resources within the Project Area: two previously recorded and three new resources. This section provides the conclusions of the evaluations and determinations of eligibility for these resources under the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) criteria.

ECORP reevaluated the two previously recorded resources within the Project Area: P-3-946 (Ione Racetrack) and a segment of P-3-541 (Amador Central Railroad). ECORP recommends that P-3-946 (Ione Racetrack) be considered not eligible for the NRHP/CRHR under Criterion A/1 due to a lack of integrity. Resource P-3-541 (Amador Central Railroad) was previously evaluated in 2004 and determined to be a contributor to an eligible district—the Amador Railroad District—under Criteria A/1 and C/3, as well as being significant to the local population. ECORP concurs with this finding and further determined that the Project will have No Adverse Effect/No Significant Impact to the railroad with incorporation of measures to ensure protection.

ECORP evaluated the three newly identified resources within the Project Area: IR-01 (the Ione Water Treatment Plant), IR-02 (SR-104), and IR-03 (SR-124). ECORP recommends that all three resources be considered not eligible for the NRHP/CRHR.

4.5.4 Cultural Resources (V) Environmental Checklist and Discussion

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

Less Than Significant with Mitigation Incorporated.

The 2024 ECORP records search and field survey found five cultural resources within the Project Area: two previously recorded and three new resources. This section provides the conclusions of the evaluations and determinations of eligibility for these resources under the NRHP and CRHR criteria.

ECORP reevaluated the two previously recorded resources within the Project Area: P-3-946 (Ione Racetrack) and a segment of P-3-541 (Amador Central Railroad). ECORP recommends that P-3-946 (Ione Racetrack) be considered not eligible for the NRHP/CRHR under Criterion A/1 due to a lack of integrity. Resource P-3-541 (Amador Central Railroad) was previously evaluated in 2004 and determined to be a contributor to an eligible district—the Amador Railroad District—under Criteria A/1 and C/3, as well as being significant to the local population. ECORP concurs with this finding and further determined that the Project will have No Adverse Effect/No Significant Impact to the railroad with incorporation of measures to ensure protection.

ECORP evaluated the three newly identified resources within the Project Area: IR-01 (the Ione Water Treatment Plant), IR-02 (SR-104), and IR-03 (SR-124). ECORP recommends that all three resources be considered not eligible for the NRHP/CRHR.

Site P-3-541 (Amador Central Railroad) is being avoided by the Project through vertical separation; however, the boring beneath the railroad could result in an impact if the proper depth is not determined in advance and maintained. Therefore, Mitigation Measure CUL-1 is included for depth controls and shall be clearly expressed on all Project engineering drawings and site plans. Therefore, with mitigation incorporated, any impacts shall be less than significant.

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 Incorporated.

The Project Area has a low potential for buried intact pre-contact archaeological because it contains soil types that pre-date human occupation of the area and, despite being located more than 1,000 feet away from a creek, is also composed of sedimentary rock with a limited amount of alluvium. The region of the Project Area is in an area that has been eroding over time, and what alluvium is present is weathered and likely washed downhill. However, there always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources; therefore, with implementation of CUL-2, 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 Incorporated.

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-2, impacts to human remains will remain less than significant.

4.5.5 Mitigation Measures

CUL-1: **Depth Control for Railroad Integrity.** At the location where the pipeline will cross under the Amador Central Railroad, a licensed engineer shall calculate the depth under which the bore should occur to avoid loss of integrity of the railroad grade.

CUL-2: **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 National Historic Preservation Act, 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 (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

Energy consumption is analyzed according to the potential direct and indirect environmental impacts associated with the construction and operation of the Project. Such impacts include the depletion of nonrenewable resources (e.g., oil, natural gas, coal, etc.) and emissions of pollutants during the construction phase. The impact analysis focuses on the sources of energy that are relevant to the Proposed Project, which includes the equipment fuel necessary for Project construction.

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. Pacific Gas & Electric Company (PG&E)

provides power to the Project Area. It generates or buys electricity from hydroelectric, nuclear, renewable, natural gas, and coal facilities. PG&E provides natural gas and electricity to most of the northern two-thirds of California, from Bakersfield and Barstow to near the Oregon, Nevada, and Arizona State Line. It provides 5.2 million people with electricity and natural gas across 70,000 square miles. In 2022, approximately 40 percent of PG&E's electricity came from renewable resources including biopower, geothermal, small hydroelectric, solar, and wind power. Overall 95 percent of the company's delivered electricity comes from greenhouse gas emission-free sources, including renewables, nuclear, and hydropower (PG&E 2024).

The California Public Utilities Commission (CPUC) regulates PG&E. The CPUC has developed energy efficiency programs such as smart meters, low-income programs, distribution generation programs, self-generation incentive programs, and a California solar initiative. Additionally, the California Energy Commission (CEC) maintains a power plant database that describes all the operating power plants in the state by county.

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 (CEC) 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
2020	5,233,307
2019	5,058,829
2018	4,274,682

Source: California Energy Commission (CEC) 2023a

Total automotive gasoline consumption in Amador County from 2020 to 2024 is shown in Table 4.6-3. As shown, automotive fuel consumption has increased since 2020.

Table 4.6-3. Countywide Fuel Consumption in Amador County 2020 – 2024

Year	Fuel Consumption (gallons)
2024	17,305,468
2023	17,180,784
2022	17,342,171
2021	17,379,128
2020	15,460,293

Source: California Air Resources Board (CARB) 2024

4.6.2 Regulatory Setting

4.6.2.1 State

Integrated Energy Policy Report

Senate Bill 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 (Public Resources Code 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).

4.6.3 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 interior clarifier launder at the existing Ione WTP, add an additional 1 MGD worth of relocatable filtration, upgrade the existing Backwash Pumping, electrical system and controls updates, install a retaining wall south of the clarifier to support filtration, widen and straighten a driveway, install a retaining wall to support the driveway widening,

replace a pipeline for the retaining wall installation, backwash pipeline, and install fencing. In summary, the Project includes improvements required to allow the existing Ione WTP to reliably provide its current committed water production capacity. 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 2024, the most recent full year of data. The amount of total construction-related fuel used was estimated in Table 4.6-4 using vehicle mileage derived from the County's annual miles driven per gallon of both diesel and gasoline consumed, found in CARB's Emission Factor Model (2021).

Table 4.6-4. Proposed Project Fuel Consumption

Energy Type	Annual Energy Consumed	Percentage Increase Countywide
Vehicular/Equipment Fuel Consumption		
Total Construction Fuel Consumption	273,456 gallons	1.58%

Source: California Air Resources Board (CARB) 2024.

Notes: The Project increase construction-related fuel consumption is compared with the countywide construction related fuel consumption in 2024, the most recent full year of data. Construction equipment is taken from Appendix A (California Energy Emissions Module (CalEEMod). Fuel consumption of off-road construction equipment was assumed to be diesel. Refer to Appendix B (Energy Calculations) for model data outputs.

As shown in Table 4.6-4, the Project's gasoline fuel consumption during construction is estimated to be 273,456 gallons of fuel during construction, which would increase the annual gasoline fuel use in Amador County by 1.58 percent during Project construction. As such, Project construction would have a nominal effect on local and regional energy supplies, especially over the long-term. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency combined with state regulations limiting engine idling times and require recycling of construction debris, would further reduce the amount of transportation fuel demand during Project construction. For these reasons, it is expected that construction fuel consumption associated with the Project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

4.6.3.2 Operational Impacts

Operations of the Project would not generate any fuel consumption as it would not be contributing to any mobile sources. The proposed Project includes improvements required to allow the existing Ione Water Treatment Plant to reliably provide its current committed water production capacity. The amount of water pumped would not increase beyond existing conditions. Therefore, there is no new operational energy consumption associated with the proposed Project.

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 customer's 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.

4.6.4 Mitigation Measures

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

4.7 Geology and Soils

4.7.1 Environmental Setting

4.7.1.1 Geomorphic Setting

California contains 11 geomorphic provinces, which are naturally defined geologic regions displaying a distinct landscape or landform. Amador County is located in the Sierra Nevada geomorphic province, between the Sierra Nevada Foothills and the Sacramento Valley. The Sierra Nevada foothills is a tilted fault block nearly 400 miles long. Its east face is a high, rugged multiple scarp, contrasting with the gentle western slope that disappears under sediments of the Central Valley.

The main mass of the Sierra Nevada is a huge batholith of granodiorite and related rocks that is intrusive into metamorphosed rocks of Paleozoic and Mesozoic age. The metamorphic rocks occur largely along the western foothills and in the northern end of the range. They are complexly folded and faulted and consist of a number of major rock units. The principal units are the slates, phyllites, schists, quartzites, hornfels, and limestones of the Calaveras Formation (Carboniferous to Permian); the Amador Group (Middle and Upper Jurassic) of metasedimentary and metavolcanic rocks; the Mariposa Formation (Upper Jurassic), much of which is slate; schists, phyllites, and quartzites of the Kernville Series (Jurassic or older) in the southern Sierra Nevada; and a vast amount of undifferentiated pre-Cretaceous greenstones and amphibolites. In addition, there are numerous intrusions of basic and ultra-basic rocks, many of which are

serpentinized. The serpentine bodies have been structurally important in the localization of some gold-bearing deposits and often are parallel to, or occur within, the belts of gold mineralization. There are also numerous dioritic and aplitic dikes that are closely associated with gold-bearing veins (Clark, 1970).

The Sierra Nevada province has been the source of the majority of the state's gold production and contains the richest and the greatest number of districts. Much of the gold mineralization is in the belt of metamorphic rocks that extends along the western foothills and in the northern end of the range, although some important districts are in granitic rocks. Some are associated with small intrusions or stocks related to the Sierra Nevada batholith (Clark, 1970). In the central portion of the Sierra Nevada province, the most productive and best-known districts are in the Mother Lode gold belt.

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; and
- **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.

Amador County is traversed by the Foothills fault system that runs from about Oroville in the north to the east of Fresno in the south. The Foothills fault system is a complex series of northwest trending faults that are related to the Sierra Nevada uplift. The nearest fault to the Project area is the Bear Mountain Fault, which is approximately 3 miles east of the Project Site. The State Geological Survey has not designated the Bear Mountain fault as an active fault (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 identifies Earthquake Fault Zones (DOC 2025c). 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. The California Geologic Survey (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 site. The proposed Project is not within an Alquist-Priolo Special Study Zone. The nearest Alquist-Priolo fault zone, the Greenville Fault, is located approximately 50 miles southwest of Ione (DOC 2025d).

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 Natural Resources Conservation Service (NRCS) Web Soil Survey (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. According to the DOC, the Project Site is not within an area has the potential for liquefaction (DOC 2022).

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 Public Resources Code 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. According to the Multi-Hazard Mitigation Plan for Amador County, the potential for landslides within the Project area is generally low (Amador County 2020).

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 planning boundary areas of the City of Ione. 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 3 miles to the east of the proposed Project (City of Ione 2009).

4.7.1.3 Soils

According to the NRCS Web Soil Survey website (2025), four soil types make up the Project Area. Table 4.7-1 provides an overview of the soil series mapped within the Project Area 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 Biological Study Area

Map Unit Symbol	Map Unit Name	Parent Material	Hydric Rating
CP	Clay pits	N/A	No
Mt	Mokelumne soils and alluvial land	Alluvium	Yes
RbD	Red Bluff-Mokelumne complex, 5 to 16 percent slopes	Alluvium derived from metamorphic and sedimentary rock	No
Sa	Sedimentary rock land	Sedimentary rock	No

Note: N/A = Not Applicable

Source: Natural Resources Conservation Service 2024a, 2024b

Location: C:\Users\lgalvez\Documents\ArcGIS\Projects\MyProject9.aprx - Letter Portrait (2022) (lgalvez - 2/21/2025)

Map Date: 2/21/2025
Sources: Esri, Maxar (2023)

Figure 2.7-1. Natural Resources Conservation Service Soil Types

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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 (University of California Museum of Paleontology 2025).

4.7.2 Regulatory Setting

4.7.2.1 State

National Pollutant Discharge Elimination System Permit Program

As authorized by the Clean Water Act (CWA), the National Pollutant Discharge Elimination System (NPDES) Permit Program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. It is the responsibility of Regional Water Boards to preserve and enhance the quality of the state's waters through the development of water quality control plans and the issuance of waste discharge requirements (WDRs). WDRs for discharges to surface waters also serve as NPDES permits (USEPA 2025). Under Phase II NPDES permit requirements, dischargers in any location whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres are required to obtain coverage under the statewide General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 99-08-DWQ). Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a SWPPP. The SWPPP should contain a site map(s) which shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list best management practices (BMPs) the discharger will use to protect stormwater runoff and the placement of those BMPs. The SWPPP must also include a proposed schedule for the implementation and maintenance of erosion control measures and a description of the erosion control practices, including appropriate design details and a time schedule. Consideration must be given to the full range of erosion control BMPs and the discharger is required to consider any additional site-specific and seasonal conditions when selecting and implementing appropriate BMPs. The SWPPP is also required to include a description of BMPs to reduce wind erosion at all times for the areas of active construction, with particular attention paid to stockpiled materials.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. A direct result of the 1971 San Fernando earthquake and the extensive surface fault ruptures that damaged numerous homes, commercial buildings, and other structures, the Alquist-Priolo Earthquake Fault Zoning Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. The Seismic Hazards Mapping Act (discussed below) addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically induced landslides.

The law requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps. The maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling new or renewed construction. The law requires that before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. An evaluation and written report of a specific site must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (generally 50 feet) (DOC 2025d).

California Building Code

The California Building Code (CBC) is another name for the body of regulations found in the CCR, Title 24, Part 2, which is a portion of the California Building Code. The purpose of the CBC is to provide minimum standards to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all building and structures within its jurisdiction. The provisions of the CBC apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout the State of California. All occupancies in California are subject to national model codes adopted into Title 24, and occupancies are further subject to amendments adopted by state agencies and ordinances implemented by local jurisdictions' governing bodies (California Department of General Services 2025).

4.7.2.2 Local

Amador County Multi-Hazard Mitigation Plan

The Amador County Multi-Hazard Mitigation Plan is a multi-jurisdictional plan that includes the County and the communities of Amador City, Ione, Jackson, Plymouth, and Sutter Creek. The purpose of hazard mitigation and this plan is to reduce or eliminate long-term risk to people and property from natural hazards and their effects in Amador County. The plan acknowledges that Amador County is vulnerable to several natural hazards including wildfires, floods, earthquakes, and drought. Each hazard is identified, profiled, and analyzed in the plan. The plan and planning process lay out a strategy intended to enable

Amador County to become less vulnerable to future disaster losses. This plan has been formally adopted by each participating entity and is required to be updated a minimum of every five years. The City of Ione utilizes the Amador County Multi-Hazard Mitigation Plan as its local emergency management plan.

City of Ione General Plan

The City of Ione General Plan was adopted by the City Council in August 2009. The City General Plan is a policy document designed to give long-range guidance regarding the growth and resources within the City and its SOI. The relevant policy from the Ione General Plan related to agricultural and forestry resources and the proposed project is listed below:

Goal NS-4: Reduce the risk of adverse effects to residents or businesses as a result of geologic or seismic instability.

Policy NS-4.1: Support efforts by federal, state, and local jurisdictions to investigate local seismic and geologic hazards and support those programs that effectively mitigate seismic and safety hazards.

Policy NS-4.2: Ensure that new structures are protected from damage caused by geologic and/or soil conditions to the greatest extent feasible.

4.7.3 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 of the area.

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 Project proposes to repair and/or replace facilities at the existing 2.19 acre Ione WTP site due to age deterioration and limiting capacity. The project will also include the construction of a new backwash handling 6" pipeline that will run from the Ione WTP south approximately 1.3 miles to the US Mine property. 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 site 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 piping and associated improvements at the WTP would require excavation activities within a relatively flat area along or within existing roads, and would have little possibility to result in 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 Hydrology and Water Quality Environmental Checklist and Discussion*). 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 site 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 four different types of soil located within the project area: clay pits, Mokelumne soils and alluvial land, Red Bluff-Mokelumne complex, 5 to 16 percent slopes, and sedimentary rock land. During construction, any trenching and fill on the project site could create locally unstable soil conditions that could result in a localized increase in wind- or water- related soil erosion.

The Amador County Local Hazard Mitigation Plan illustrates erosion and landslide hazards that occur within Amador County. According to the illustration, erosion and landslide potential for soil types on the project site is considered low (Amador County 2020).

All excavation activities, grading, and construction would be conducted according to standard construction practices and building codes. A National Pollutant Discharge Elimination (NPDES) permit would be required for construction activities from the Regional Water Quality Control Board (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 Hydrology and Water Quality: Section 10 of this Environmental Checklist]. 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 Project construction, 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 site, 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 within the Project area have a "moderate" potential for shrink-swell behavior, or expansiveness. The proposed Project is required to comply with existing CBC. Additionally, no new development, structures, or grading will be necessary, therefore reducing the potential for hazards from unstable and expansive soils to less than significant. Thus, the Proposed Project would result in a less than significant impact and 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 Project proposes to repair and/or replace facilities at the existing 2.19 acre Ione WTP site due to age deterioration and limiting capacity. The project will also include the construction of a new backwash handling 6" pipeline that will extend from the Ione WTP south approximately 1.3 miles to the US Mine property. The proposed Project would not directly or indirectly result in the installation of any new septic systems or alternative wastewater disposal systems. Any impacts would be less than significant. 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 construction of the drying beds and associated site improvements. Although the proposed excavation depth would be limited, excavations may result in penetration of the underlying 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 PALEO-1.

4.7.4 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 AWA 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 AWA resumes work in a location where paleontological remains have been discovered and cleared, AWA 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 CO2. 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. 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.

Greenhouse gas 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. Construction-generated GHG emissions associated with the Proposed Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See Appendix A for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

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/Year)
Construction Year One	428
CAPCOA Significance Threshold	*900*
Exceed Significance Threshold?	**No**

Note: CAPCOA = California Air Pollution Control Officers Association; CO_2e = Carbon Dioxide Equivalent

Source: California Energy Emissions Module (CalEEMod) 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 428 metric tons of CO_2e during the first year of construction and approximately 283 metric tons of CO_2e during the second year 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 GHG Emissions

The Proposed Project includes improvements required to allow the existing Ione Water Treatment Plant to reliably provide its current committed water production capacity. The amount of water pumped would not increase. 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 Project would not conflict with any adopted plans, policies, or regulations adopted for the purpose of reducing GHG emissions. The Proposed Project is subject to compliance with statewide GHG-reducing goals promulgated by the California 2008 Climate Change Scoping Plan and subsequent updates. As the AAD has not established GHG thresholds for land use projects in the City, Project emissions are compared to the CAPCOA thresholds as shown in Table 4.8-1. The Proposed Project would not exceed CAPCOA thresholds. The significance thresholds established by CAPCOA are prepared to comply with statewide 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 Defined

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 2025).

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies, and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. California Department of Toxic Substances Control (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 site is not listed by the DTSC as a hazardous substances site or within the Cortese list and there are no sites listed within 0.5 miles from the site. The closest site is the Newton Mine, approximately 1.5 miles west of the Project Site at Highway 88 between Jackson and Ione, in Sunnybrook, CA 95640 (DTSC 2025).

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 (SWRCB 2025).

The proposed Project is not listed on the State Water Resources Control Board (SWRCB) GeoTracker website, however, there are six sites within a half mile of the Project. They can be found listed on Table 4.9-1 below:

Table 4.9.1. SWRCB GeoTracker LUST Cleanup Sites within 0.5 Miles of the Project Site

Location	Address	Potential Contaminants of Concern	Status	Date
Ione Junior High School	450 South Mill Street Ione, CA 95640	Diesel	Case Closed	9/2/2004
City of Ione Corporation Yard	Mill Street & Marlette Street Ione, CA 95640	Gasoline, Diesel	Case Closed	12/1/2010
Sierra Energy	116 Main Street Ione, CA 95640	Gasoline	Case Closed	1/19/2010
Ione Tire & Wheel	340 Preston Avenue Ione, CA 95640	Waste Oil/Motor/Hydraulic	Case Closed	8/28/1992
Chevron	349 Preston Avenue Ione, CA 95640	Gasoline	Case Closed	4/30/2010
Sierra Trading Post #2	39 Preston Avenue Ione, CA 95640	Gasoline	Open	3/28/2017

Note: CA = California; LUST = Leaking Underground Storage Tank

Source: State Water Resources Control Board (SWRCB). 2025. GeoTracker.

Fire Hazard Severity Zones

The state has charged California Department of Forestry and Fire Protection (CALFIRE) with the identification of Fire Hazard Severity Zones (FHSZ) within State Responsibility Areas (SRA). In addition, CALFIRE must recommend Very High Fire Hazard Severity Zones (VHFHSZ) identified within any Local Responsibility Areas (LRA) (California Forestry and Fire Protection (CAL FIRE) 2024, 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 within the City of Ione's LRA and is not within a VHFHSZ (CAL FIRE 2008).

According to the Amador County Local Hazard Mitigation Plan (Amador County 2020), the chance of a wildfire in the City of Ione is considered likely and is considered to have a high significance.

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 would construct improvements to the existing Ione WTP within the City of Ione and construct a transmission pipe from the WTP to the US Mine. There is the potential for construction related hazards that could be created during the course of construction within the Project Site. Construction of the proposed Project may include the use of hazardous materials, given that construction activities involve the use of heavy equipment, which uses small and incidental amounts of oils and fuels and other potentially flammable substances. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials used during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, state, and federal law.

The Project does not involve demolition of any existing structures and therefore would not pose a hazard regarding asbestos- and/or lead-containing materials that would trigger a hazardous building materials analysis.

Once constructed, the proposed Project would not require the routine transport, use, or disposal of hazardous materials from what the existing WTP is currently experiencing. Therefore, implementation of the proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. 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
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.

The proposed Project does include expanding the chemical storage on site to reduce the number of trip deliveries. However, chemical storage already exists onsite at the WTP and expansion and improvements would be consistent with regulatory standards. Additionally, during construction, the project would use hazardous materials. 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. 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 WTP is approximately 0.1 mile northwest of the Ione Elementary School in the City of Ione. However, the proposed Project does not involve the development of a use that would emit hazardous materials, substances, or waste during operations from what is currently being utilized. The use of heavy equipment and activities involving hazardous materials would be limited to the construction phase, would be confined to construction areas and be primarily within existing roadways, and would cease upon completion of the Project. The use, transport, storage, and disposal of hazardous materials during the Project's construction phase would be regulated by health and safety requirements under federal, state, and local laws; including handling, storage, and disposal of the materials, as well as emergency spill response. The construction and operation of the proposed Project would not pose a significant threat to human health, and 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 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 Site is not located on a hazardous material site. The SWRCB showed that there are sites within 0.5 miles of the Project site, however, there are no identified sites within or immediately adjacent to the Project Area. Given that there are no existing hazardous waste sites within the Project Site 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?

No Impact.

The proposed Project is located approximately 6.65 miles away from Westover Airport in Martell and is located approximately 6.05 miles north of the Camanche Skypark Airport. No portion of the proposed Project is within an airport land use plan. Therefore, there would be no impact, 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 with Mitigation Incorporated.

All communities face the possibility of disasters and emergency situations, whether they are of natural or human-related causes. Citizens and first responders must be prepared to react to such an emergency. Amador County adopted a Local Hazard Mitigation Plan (LHMP) in 2020 which is considered the primary document when determining how disasters will be managed within the County. The Ione City Police Department and the Ione Fire Department are equipped to provide first line of emergency response in the unlikely event of a major disaster.

The Project proposes to repair and/or replace facilities at the existing 2.19 acre Ione WTP site due to age deterioration and limiting capacity. The project will also include the construction of a new backwash handling 6" pipeline that will extend from the Ione WTP south approximately 1.3 miles south to the US Mine property. Most of the Project construction for the pipeline would occur within the Right-of-Way (ROW), which could be utilized during an emergency evacuation. Construction activities could impede the use of surrounding roadways. Therefore, the proposed Project would require implementation of Mitigation Measure TRA-1 (Section 4.17) that requires the preparation and implementation of a Construction Traffic Management Plan. This mitigation measure would assist in maintaining traffic flow along roadways during construction activities. After construction of the Project is completed, the Project stie would be restored to the existing condition. Therefore, implementation of the proposed Project would not obstruct evacuation routes or access to critical emergency facilities. Once construction is completed, the proposed Project would not interfere with LHMP or any evacuation. This impact is less than significant with mitigation incorporated.

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 site is located in a local responsibility area but has been identified as a high fire severity zone per the Amador County Local Mitigation Hazard Plan. However, the Project does not include any new development, structures, or would involve any new employees to be stationed permanently at the site on a daily basis. Therefore, the proposed Project would not expose people or structures to a significant loss, injury or death due to wildfires. Any impact would be less than significant.

4.9.3 Mitigation Measures

Mitigation Measure TRA-1 has been included, please see Section 4.17 for more information.

4.10 Hydrology and Water Quality

4.10.1 Environmental Setting

The information regarding aquatic resources within the project site is based on the analysis and recommendations presented in the BRA prepared for the Proposed Project (ECORP 2025b, Appendix B).

4.10.1.1 Regional Hydrology

California has 10 hydrologic regions. Amador County sits in the San Joaquin hydrologic region. This region encompasses the middle portion of the Central Valley bounded by the Sierra Nevada Mountains, the Coast Reang, the divide between the American and Cosumnes river watersheds, and the divide between the San Joaquin and Kings River watersheds. The region also includes portions of the Sacramento-San Joaquin Delta. Although predominantly agricultural, this region has experienced increased urbanization in recent years and is subject to flooding from winter storm events and snowmelt.

Watersheds

The proposed Project is located in the Dry Creek watershed. The Dry Creek Watershed, an integral part of the Bay Delta System, covers more than 300 square miles, including 128 miles of streams, between the Upper Mokelumne River watershed and the Upper Cosumnes River, primarily in Amador County. The Creek flows west/southwest through the western slope of the foothills, joining with its two major tributaries, Sutter Creek and Jackson Creek along the way. It then flows to the floor of the Central Valley, just east of the town of Thornton (west of the City of Galt) where it empties into the Mokelumne River, while the Cosumnes River, enters the Mokelumne River approximately six miles downstream. The Mokelumne River then enters the complex network of tidally influenced rivers and sloughs of the Sacramento-San Joaquin Delta. The delta waters eventually empty into the San Francisco Bay (Amador County 2020 and USGS 2024).

The majority of the Dry Creek Watershed is located in Amador County, but the lower elevation is split between Sacramento County on the north and San Joaquin County on the south. Incorporated cities within the watershed include Jackson, Sutter Creek, Amador City, and Ione in Amador County, and Galt in Sacramento County.

Streams in the Dry Creek Watershed are almost completely unregulated, except for several small dams and reservoirs on sub-watersheds. Lake Amador, located on the Jackson Creek south of the City of Ione, is the only significant dam and reservoir in the watershed with a capacity of 22,000 acre-feet. Lake Tabeaud (located on the South Fork of Jackson Creek), belongs to PG&E, and is the fore bay to the Electra Power House (Amador County 2020).

4.10.1.2 Site Hydrology and Onsite Drainage

As mentioned in Section 4.4, 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 an intermittent drainage (Figure 4.4-2). The intermittent drainage crosses the proposed Pipeline Alignment and is a linear drainage feature that supports seasonal flows from precipitation and urban runoff. It is approximately 10 feet wide with steeply eroded banks. Dominant plants observed within this feature include broad-leaf cattail and smartweed.

Review of the NWI showed one mapped aquatic feature within the Project Area. The NWI mapping designation (NWI code) indicates the presence of a Riverine feature that overlaps the eastern border of the Project Area. This feature would have been directly impacted by residential development and likely no longer exists. Note that the NWI inventory mapping is a national dataset 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, on-the-ground inspection of a particular study area is needed to confirm wetland boundaries and classifications.

4.10.2 Regulatory Setting

4.10.2.1 Federal Plans, Policies, Regulations, and Laws

Clean Water Act

The Clean Water Act of 1972 (CWA) 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 Regional Water Quality Control Boards (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 U.S. Army Corps of Engineers (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

Clean Water Act. 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 USACE. 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, the California Department of Fish and Wildlife (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 Clean Water Act) are found in the Basin Plans adopted by the State Water Resources Control Board and each of the nine Regional Water Quality Control Boards. 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 waste discharge requirements (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 Integrated Regional Water Management Plan (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: AWA, Calaveras County Water District, Amador County, City of Jackson, City of Sutter Creek, City of Plymouth, Amador Regional Sanitation Authority, 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 2016).

4.10.2.4 Local

City of Ione Municipal Code – Floodplain Management

Title 18, Chapter 18.04 of the City of Ione Municipal Code is entitled Floodplain Management and establishes requirements and regulates development and other activities in areas of special flood hazard. It states that the purpose of the ordinance is to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

A. Protect human life and health;

B. Minimize expenditure of public money for costly flood control projects;

C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

D. Minimize prolonged business interruptions;

E. Minimize damage to public facilities and utilities such as water and gas mains; electric, telephone and sewer lines; and streets and bridges located in areas of special flood hazard;

F. Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future blighted areas caused by flood damage;

G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and

H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

In order to accomplish its purposes, the ordinance includes regulations and provisions to:

A. Restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;

B. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

C. Control the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;

D. Control filling, grading, dredging, and other development which may increase flood damage; and

E. Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

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.

While no creeks, streams or rivers exist on the Project Site, an ephemeral drainage is located within the pipeline alignment.

In accordance with NPDES regulations, the State of California requires that any construction activity affecting 1 acre or more, or discharges from smaller sites that are part of a larger common plan of development or sale, obtain a General Construction Activity Stormwater Permit to minimize the potential effects of construction runoff on receiving water quality. As described previously, The Project proposes to repair and/or replace facilities at the existing 2.19 acre Ione WTP site due to age deterioration and limiting

capacity. The project will also include the construction of a new backwash handling 6" pipeline that will extend from the Ione WTP south approximately 1.3 miles to the US Mine property. The General Permit requires the development and implementation of a SWPPP. The SWPPP should contain a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the Project. The SWPPP must list BMPs the discharger will use to protect stormwater runoff and the placement of those BMPs.

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

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

The proposed Project would be required to prepare and comply with an approved SWPPP. Compliance with these requirements would reduce the potential water quality impacts to less than significant.

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 Ione 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 site 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.

According to the Federal Emergency Management Agency (FEMA) floodplain mapping, the proposed Project is not located within an area that experiences floods or tsunamis (FEMA 2025). 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 site 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

Regional Setting

The City of Ione is located in southwestern Amador County at the juncture of the Sierra Nevada foothills and the Central Valley. Ione is located approximately 30 miles southwest of Sacramento and 30 miles northeast of Stockton. Elevations in the city range from 258 above mean sea level (amsl) in the southwest of the city to approximately 600 feet amsl in the northeast. Both SR 124 and SR 104 bisect the city. SR 104 aligns generally northwest to southeast and SR 124 aligns northeast to southwest from its juncture with SR104.

Amador County encompasses approximately 570 square miles and is bordered by Sacramento and San Joaquin counties on the west, Alpine County on the east, El Dorado County on the north, and Calaveras County on the south. The western portion of Amador County is characterized by foothills and oak woodland with elevations averaging around 500 feet. The eastern portion of the county includes the western slopes of the Sierra Nevada with elevations climbing to approximately 8,000 feet. The Cosumnes River follows the county's northern border and the Mokelumne River defines the southern border.

Five incorporated cities are located in Amador County: Jackson, Sutter Creek, Ione, Plymouth, and Amador City. Seven towns are also located in the county: Drytown, River Pines, Fiddletown, Volcano, Pine Grove, Pioneer, and Kirkwood.

Local Setting

The proposed Project is located within the City of Ione, in Amador County. According to the City of Ione General Plan, the General Plan land use designation of the WTP is General Commercial, and the piping portion of the Project is designated as Parks and Recreation and Special Planning Area (City of Ione 2009).

4.11.2 Regulatory Setting

4.11.2.1 State

California Government Code

California law requires each city to adopt a comprehensive, long-term general plan to guide the physical development of the incorporated city and land outside city boundaries that bears a relationship to its planning activities. The city may adopt a general plan in the format that best fits its unique circumstances in an integrated, internally consistent, and compatible statement of development policies. Together, the seven mandated elements of a general plan form a comprehensive set of planning policies. In accordance with California Government Code Section 65302, the Ione General Plan addresses the issues of land use, circulation, housing, noise, safety, conservation, and open space.

The general plan also addresses additional topics of special and unique interest, including community character, economic development, historic and cultural resources, and municipal services. These topics reflect additional issues that are important to the community. While optional elements are not required by state law, once they are adopted by a city, optional elements are as legally binding and valid as the required elements. The City of Ione has chosen to adopt a General Plan that consolidates some of the mandatory elements and includes two optional elements (Economic Development and Public Facilities).

By law, the general plan is the primary document a city utilizes to regulate land use. It provides the city with a consistent framework for land use decision-making. Once a general plan is adopted, its maps, diagrams, and development policies form the basis for city zoning, subdivision, and public works actions. Therefore, the zoning ordinance, specific plans, planned development master plans, and individual public and private development proposals must be consistent with the general plan goals, policies, and standards. Under California law, no specific plan, area plan, zoning, subdivision map, nor public works project may be approved unless the city finds that it is consistent with the adopted general plan.

4.11.3 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 improvements to the existing Ione WTP and construction of a pipe to the US Mine. The proposed project will encroachment permits to install the pipeline. 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 is consistent with both the City of Ione's and 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.

4.11.4 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.

Mineral resources have played an important role in the City of Ione's development, and the Planning Area is rich in both metallic and non-metallic mineral resources, including clay, coal, sand, and gravel. As previously mentioned, three geologic formations occur within the Planning Area – Alluvium, the Ione Formation, and the Amador Group (City of Ione 2009). Of these three formations, the Ione Formation is of importance for non-metallic minerals. The Ione Formation includes an upper and lower layer, with the upper layer being composed of clay, sand, clays and, and conglomerate and the lower layer containing sand, clay, and lignite. The Ione Formation (lower to middle Eocene) is a major source of silica sand, refractory clay, specialized lignites, and other materials for the western United States (Force and Creely 2000). While metallic ores were the primary source of mining activities during the early days of the city, the predominant mining activities of today focus on non-metallics such as clays, sands, and similar materials. Most of the commercial clays desired by mining operations, primarily kaolinite or anauxite, are located in the lower layer of the Ione Formation (City of Ione 2009). Another commercially important product of the Ione Formation is lignite, which produces montan wax, fertilizer, pigments, and other

chemical products. Other non-metallic mineral deposits in the Ione area include gravel and sand used for making glass. Ione minerals are also used extensively to produce stucco.

Several mining operations are located in the Ione area, including the Unimin Corporation mining operation to the south of the city at 800 Brickyard Road, the Owens-Illinois sand and limestone mining operation south of the city along SR 124, and U.S. Mine Corp, located at 8625 Highway 124 within Ione. The U.S. Mine Corp is where the proposed backwash piping will connect to. They are a mineral producing company that produces kaolin clay, silica, and ilmenite heavy mineral concentrate,

The Surface Mining and Reclamation Act of 1975 (SMARA) 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 Mineral Resource Zone (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 the Department of Conservation mapping (Davis 1983), the Project Area is listed as MRZ-2a and MRZ-2b. The definition of MRZ-2a and MRZ-2b are the following:

MRZ-2a: Areas underlain by mineral deposits where geologic data indicate that significant measured or indicated resources are present. Areas classified MRZ-2a contain discovered mineral deposits as determined by such evidence as drilling records, sample analysis, surface exposure, and mine information. Land included in the MRZ-2a category is of prime importance because it contains known economic mineral deposits.

MRZ-2b: Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. Areas classified MRZ-2b contain discovered mineral deposits that are either inferred reserves as determined by limited sample analysis, exposure, and past mining history or are deposits that presently are sub-economic. Further exploration and/or changes in technology or economics could result in upgrading areas classified MRZ-2b to MRZ-2a.

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-2a and MRZ-2b. As defined above in 4.12.1 Environmental Setting, MRZ-2a is known as "Areas underlain by mineral deposits where geologic data indicate that significant measured or indicated resources are present. Areas classified MRZ-2a contain discovered mineral deposits as determined by such evidence as drilling records, sample analysis, surface exposure, and mine information. Land included in the MRZ-2a category is of prime importance because it contains known economic mineral deposits" and MRZ-2b is known as "Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. Areas classified MRZ-2b contain discovered mineral deposits that are either inferred reserves as determined by limited sample analysis, exposure, and past mining history or are deposits that presently are sub-economic. Further exploration and/or changes in technology or economics could result in upgrading areas classified MRZ-2b to MRZ-2a".

Although mineral resources are existing within Amador County and the City of Ione, 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. 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) 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 of Ione 2009). As described in item a), the proposed Project site is classified as MRZ-2a and MRZ-2b but the Project would not impact any mineral resources. The proposed Project would actually improve conditions at the U.S. Mine Corp location, as the backwash water from the WTP would be delivered to the U.S. Mine for dust suppression. 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 average hourly noise level (in L_{eq}) and the average daily noise levels/community noise equivalent level (in L_{dn}/CNEL). The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined as follows:

- **Equivalent Noise Level (L_{eq})** is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- **Day-Night Average (L_{dn})** is a 24-hour average L_{eq} with a 10 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}.
- **Community Noise Equivalent Level (CNEL)** is a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 pm to 10:00 pm and a 10-dBA weighting added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the evening and nighttime, respectively.

Noise can be generated by 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 (Federal Highway Administration [FHWA] 2006). 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 receptors to the Project Area are single-family residences located approximately 75 feet to the east.

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 in the eastern portion of the City of Ione in Amador County, is impacted by the noise sources of households, construction equipment and vehicles. Other noise sources include minor transportation corridors such as SR 124 and 104. The nearest source of traffic noise is SR 104 to the south of the Project Area.

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

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

Category	Land Use	Description	People per Square Mile	Typical L_{dn}	Daytime L_{eq}	Nighttime L_{eq}
1	Noisy Commercial & Industrial Areas and Very Noisy Residential Areas	Very heavy traffic conditions, such as in busy, downtown commercial areas; at intersections for mass transportation or other vehicles, including elevated trains, heavy motor trucks, and other heavy traffic; and at street corners where many motor buses and heavy trucks accelerate.	63,840	67 dBA	66 dBA	58 dBA
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 dBA	61 dBA	54 dBA

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

Category	Land Use	Description	People per Square Mile	Typical L_{dn}	Daytime L_{eq}	Nighttime L_{eq}
3	Quiet Commercial, Industrial Areas and Normal Urban & Noisy Suburban Residential Areas	Light traffic conditions where no mass-transportation vehicles and relatively few automobiles and trucks pass, and where these vehicles generally travel at moderate speeds; residential areas and commercial streets, and intersections, with little traffic, compose this category.	6,384	57 dBA	55 dBA	49 dBA
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 dBA	50 dBA	44 dBA
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 dBA	45 dBA	39 dBA

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

Category	Land Use	Description	People per Square Mile	Typical L_{dn}	Daytime L_{eq}	Nighttime L_{eq}
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 dBA	40 dBA	34 dBA

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

4.13.2 Regulatory Framework

4.13.2.1 National Institute of Occupational Safety and Health

A division of the US Department of Health and Human Services, the National Institute for Occupational Safety and Health (NIOSH) has established a construction-related noise level threshold as identified in the Criteria for a Recommended Standard: Occupational Noise Exposure prepared in 1998. 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. The intention of these thresholds is to protect people from hearing losses resulting from occupational noise exposure.

4.13.2.2 City of Ione Municipal Code

The City's regulations with respect to noise are included in Chapter 9.16 *Noise Control*, of the City Municipal Code. *Prohibited Acts* outlined in Section 9.16.040, enumerates public nuisances. This part of the code states that any construction, demolition, excavation, erection, alteration, or repair activity shall not occur before 7:00 a.m. or after 9:00 p.m. on Monday through Thursday, and after 10:00 p.m. on Friday through Sunday, or on any Federal or State Holiday. *Exemptions*, outlined in Section 9.16.050, detail exemptions to the noise codes and ordinances. This part of the code states that noise codes and ordinances shall not apply to the construction of any real property, provided the activities do not take place before 7:00 a.m. or after 9:00 p.m. on any day.

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 Impact.

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 75 feet to the east.

4.13.3.1 Onsite Construction Noise Impacts

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

The Proposed Project would involve two separate construction locations. The first location involves on-site improvements at the WTP, with the nearest sensitive receptors being single-family residences located approximately 75 feet east. The second construction site would involve the proposed 1.39-mile pipeline to the south of the WTP. Along the pipeline alignment, the closest sensitive receptors would also be 75 feet distant, to the northwest of the pipeline on Foothill Boulevard. As previously mentioned, City of Ione Municipal Code Section 9.16.040 states that construction outside of the hours of 7:00 a.m. and 9:00 p.m. on Monday through Thursday, and after 10:00 p.m. on Friday through Sunday, or on any Federal or State Holiday is prohibited. Thus, the Project would be required to adhere to this City construction noise standard.

To estimate the worst-case onsite construction noise levels that may occur at the nearest noise-sensitive receptors and in order to evaluate the potential health-related effects (physical damage to the ear) from construction noise, the construction equipment noise levels were calculated using the Federal Highway Administration's Roadway Noise Construction Model and compared against the construction-related noise level threshold established in the Criteria for a Recommended Standard: Occupational Noise Exposure prepared in 1998 by NIOSH. A division of the US 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 Federal Transit Administration (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 75 feet from the closest single-family home. The anticipated short-term construction noise levels generated for each phase of construction are presented in Table 4.13-2.

Table 4.13-2. Construction Average (dBA) Noise Levels at Nearest Receptor (75 Feet Distant)

Construction Phase	Estimated Exterior Construction Noise Level at Nearest Receptor (dBA)	Construction Noise Standards (dBA L_{eq})	Exceeds Standards?
WTP Improvements			
Demolition	80.3	*85*	**No**
Site Preparation	81.1	*85*	**No**
Grading	82.3	*85*	**No**
Building Construction, Paving, and Painting	84.6	*85*	**No**
Pipeline Alignment			
Demolition	76.2	*85*	**No**
Site Preparation	82.7	*85*	**No**
Grading	76.2	*85*	**No**
Building Construction, Paving, and Painting	81.5	*85*	**No**

Table 4.13-2. Construction Average (dBA) Noise Levels at Nearest Receptor (75 Feet Distant)			
Construction Phase	**Estimated Exterior Construction Noise Level at Nearest Receptor (dBA)**	**Construction Noise Standards (dBA L_{eq})**	**Exceeds Standards?**

Notes: Construction equipment used during construction derived from the California Emissions Estimator Model. This model contains default construction equipment and usage parameters for typical roadway construction projects. Consistent with FTA recommendations for calculating construction noise, construction noise for both Project construction sites was measured from the center of the sites (Federal Transit Administration [FTA] 2018), which are both 75 feet from the closest residence. Equipment for the separate Project Sites is accounted for in each phase shown in Appendix A.
L_{eq} = The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
dBA = A-weighted decibel; L_{eq} = Equivalent Noise Level

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

As shown in Table 4.13-2, 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. Also, all construction noise would occur between the hours of 7:00 a.m. and 9:00 p.m. on Monday through Thursday, and 7:00 a.m. and 10:00 p.m. on Friday through Sunday, as construction is prohibited outside of those hours.

Construction noise impacts would be less than significant.

4.13.3.2 Offsite Project Construction Traffic Noise

Project construction would result in additional traffic on adjacent roadways over the period that construction occurs. According to CalEEMod, which is 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 38 daily trips in total (10 construction worker trips and 27.4 hauling trips). According to Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol, 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) (Caltrans 2013). While Project construction workers would instigate their trip to the Project Area from differing locations, the addition of 38 daily trips spread over the various roadway facilities that would be used to reach the Project Area would not result in a doubling of traffic on any of these roadway facilities, and therefore its contribution to existing traffic noise would not be perceptible. Additionally, it is noted that construction is temporary, and construction-related trips would cease upon completion of construction.

4.13.3.3 Operational Noise Impacts

The Proposed Project includes improvements required to allow the existing Ione WTP to reliably achieve its current committed water production capacity. Once upgrades are complete, the WTP would not be a greater source of operational noise beyond current conditions.

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

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

Less Than Significant Impact.

4.13.3.4 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 4.13-3.

Table 4.13-3. Typical Construction Equipment Vibration Levels

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

Source: Federal Transit Administration (FTA) 2018

The City of Ione 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 (2020) 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. This is also the level at which vibrations may begin to annoy people in buildings. PPV, the relevant distance is measured from the edge of the construction site to the nearest façade of an off-site building. 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 75 feet from the edge of the construction site.

Based on the representative vibration levels presented for various construction equipment types in Table 4.13-3 and the construction vibration assessment methodology published by the FTA (2018), it is possible to estimate the potential project construction vibration levels. The FTA provides the following equation:

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

Table 4.13-4 presents the expected Project related vibration levels at a distance of 75 feet.

Table 4.13-4 Construction Vibration Levels at 75 Feet

Receiver PPV Levels (in/sec)1					Peak Vibration	Threshold	Exceed Threshold?
Large Bulldozer, Caisson Drilling, & Hoe Ram	Loaded Trucks	Jackhammer	Small Bulldozer/ Tractor	Vibratory Roller			
0.0171	0.0146	0.0067	0.0006	0.0404	**0.0404**	*0.3*	**No**

Notes: [1]Based on the Vibration Source Levels of Construction Equipment included on Table 4.13-4 (FTA 2018). Distance to the nearest structure of concern is approximately 75 feet measured from Project Area center. in/sec = inches per second; PPV = Peak Particle Velocity

As shown in Table 4.13-4, 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.

4.13.3.5 Operational Vibration Impacts

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

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 Impact.

The Project Area is located approximately 6.05 miles north of the Camanche Skypark Airport. The Project Site lies outside any noise contours generated by air traffic at the Camanche Skypark Airport. Therefore, noise impacts would be less than significant.

4.13.4 Mitigation Measures

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

4.14 Population and Housing

4.14.1 Environmental Setting

The proposed Project is located within the City of Ione, within Amador County. The Ione General Plan includes the City's current SOI boundary and the existing city boundary as well as lands beyond the SOI. The Planning Area encompasses approximately 31,770 acres and extends as far west as the San Joaquin County line. The Project area is within the Planning Area.

According to the Department of Finance, in 2024 the total population for the City of Ione was estimated to be 8,856. The total population for Amador County was 39,611 (California Department of Finance 2025).

4.14.2 Population and Housing (XIV) Environmental Checklist and Discussion

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

No Impact.

The Project proposes to repair and/or replace facilities at the existing 2.19 acre Ione WTP site due to age deterioration and limiting capacity. The project will also include the construction of a new backwash handling 6" pipeline that will run from the Ione WTP south approximately 1.3 miles to the US Mine property. Implementation of the proposed Project would not induce substantial population growth in the area. Furthermore, minimal operation and maintenance would be required and no permanent employees beyond those currently operating the WTP 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 Project proposes to repair and/or replace facilities at the existing 2.19-acre Ione WTP site due to age deterioration and limiting capacity. The project will also include the construction of a new backwash handling 6" pipeline that will extend from the Ione WTP south approximately 1.3 miles to the US Mine property. 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

Ione City Police Department (ICPD) provides law enforcement services, including traffic enforcement, patrol and investigation. The Ione City Police Department serves within the City's bounds and provides mutual aid to the Sheriff's office for the unincorporated area within the City's SOI. ICPD relies on Amador County Sheriff for specialized team services. The Department has six sworn officers plus four reserve officers and a records clerk. At this staffing level, the Department reports that it is able to provide 24-hour service (City of Ione 2024a).

4.15.1.2 Fire Services

The City of Ione Fire Department (IFD) provides fire prevention, fire protection, fire suppression, Basic Life Support (BLS), low-angle rescue, and water rescue services. Other services include storm operations (e.g.,

flood watch and sandbags), building inspections, and public education. For calls involving emergency medical services, IFD provides BLS response until American Legion Ambulance Service arrives to perform advanced life support and ambulance transport.

City of Ione Fire Department serves within the 4.75 square miles in the city limits plus a primary response area defined through an automatic aid agreement with Amador Fire Protection District. The primary response area covers approximately 37 square miles and extends in all directions from the city limits. It extends south to the intersection of State Route (SR) 124 and SR 88, east to the Amador-Sacramento county line, west to Sunnybrook, and north to Carbondale.

According to the Municipal Service Review for Amador County (Amador County 2014), the City of Ione Fire Department has three full-time fire engineers, 35 call firefighters, 12 support staff, and eight youth fire cadets.

4.15.1.3 Schools

The Amador County Unified School District (District) provides educational services to the City of Ione and the Planning Area. One elementary school, Ione Elementary School (located at 415 South Ione Street), and one middle school, Ione Junior High (located at 450 South Mill Street), currently serve the city. Students living in Ione attend high school at Argonaut High School in Sutter Creek (501 Argonaut Lane, Jackson, CA).

4.15.1.4 Parks

The City of Ione's recreational facilities include four small community parks and one large park. The small parks are Perry Earl Park, Oakridge Circle Park, Grover Park, and Train Park. The large park is Howard Park, which includes stables, an equestrian arena, baseball fields, soccer fields, and a skate park (City of Ione 2024b).

4.15.1.5 Other Public Facilities

Library Services

The City of Ione has a library that is part of a network of community libraries within Amador County. The library is located at 25 East Main Street in Ione.

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?	☐	☐	☐	☒

Less Than Significant Impact.

4.15.2.1 Fire Protection

The Project proposes to repair and/or replace facilities at the existing 2.19 acre Ione WTP site due to age deterioration and limiting capacity. The project will also include the construction of a new backwash handling 6" pipeline that will extend from the Ione WTP south approximately 1.3 miles to the US Mine property. The proposed Project would potentially result in a need for fire protection or police service to respond to any potential incidents that may occur at the site, however, this would be a small increase to fire protection demands and it would not result in a need for new facilities or personnel. Services can adequately be provided by existing fire protection or police service facilities.

The proposed Project would not increase the existing student population or overall population in the City that would result in the need for additional school services or recreation facilities. Any impacts would be less than significant.

4.15.3 Mitigation Measures

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

4.16 Recreation

4.16.1 Environmental Setting

The City of Ione's recreational facilities include four small community parks and one large park, totaling at approximately 93.5 acres of park land (City of Ione 2009). The small parks are Perry Earl Park, Oakridge Circle Park, Grover Park, and Train Park. The large park is Howard Park, which includes stables, an equestrian arena, baseball fields, soccer fields, and a skate park (City of Ione 2024b). The proposed Project is adjacent to Howard Park.

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?	☐	☐	☒	☐

Less Than Significant Impact.

The proposed Project consists of improvements at the Ione WTP and constructing a pipeline from the WTP to the US Mine. The population would not increase as a result of the project; and 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, 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) 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). No recreational facilities are proposed as part of the project, and therefore, there would be no impacts 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

Ione's circulation system consists of a series of state routes, parkways, arterials, collectors, and local streets. Downtown Ione is based on a traditional grid style street system while a curvilinear style street system serves the surrounding uses.

4.17.1.1 State Routes

State Route (SR) 104 and SR 124 are the backbone of Ione's roadway network providing local access through town and across Sutter Creek. Both SR 104 and SR 124 provide direct access to local streets and adjacent land uses. SR 104 and SR 124 also connect residents to the City of Sutter Creek, Amador County (County), Galt, and other destinations via SR 88 and SR 16.

State Route (SR) 104 enters the City of Ione from Galt in Sacramento County and continues southeast to Sutter Creek in Amador County. SR 104 is functionally classified as a Major Collector and is a two-lane expressway between the Sacramento County line and Sutter Lane. SR 104 is constructed as a two-lane conventional highway between Sutter Lane and SR 88. Intersections along the SR 104 corridor are primarily side-street stop controlled and all-way stop controlled at major intersections (e.g., SR 124). SR 104 has a posted speed limit of 25 miles per hour (mph) within the City limits and 45 mph outside the City limits. Within the city limits, SR 104 is referred to as Preston Avenue, South Ione Street, and Main Street.

State Route (SR) 124 enters the City of Ione from SR 16 near Plymouth and continues south to SR 88. SR 124 and SR 104 follow the same alignment through downtown Ione. SR 124 is functionally classified as a Minor Arterial and is a two-lane expressway between SR 16 and SR 104 and transitions to a two-lane conventional highway between SR 104 and SR 88. SR 124 has a posted speed limit of 25 miles per hour (mph) within the City limits and 45 mph outside the City limits. SR 124 is referred to as South Church Street, Main Street, Preston Avenue, and Plymouth Highway (City of Ione 2009).

4.17.1.2 Parkways

Parkways serve both local and regional travel and provide for more expedient vehicular travel than most arterials, collectors, and local roads due to greater access control (i.e., less driveway access). Golf Links Drive and the West Ione Roadway Improvement Strategy (WIRIS) roadway segments are classified as Parkways.

4.17.1.3 Arterials

Arterials provide for cross-town and regional travel and carry heavy volumes of traffic. Major arterials within the City include SR 104 and 124. In the Planning Area, arterials include Michigan Bar Road and Buena Vista Road. SR 104 and SR 124 have posted speed limits of 25 mph inside the City limits.

The Project is proposing to jack and bore under both SR 104 and SR 124 for the Backwash pipeline between the WTP and the US Mine.

4.17.1.4 Collector Roads

Collector roads link different parts of the City with one another. Generally, collector roads carry light to moderate traffic volumes and have speed limits in the 25 to 35 mph range. Foothills Boulevard, which provides access to the WTP, is considered a collector road.

4.17.1.5 Local Roads

Local roads provide for circulation within neighborhoods and are generally posted at 25 mph. A few examples of local roads include Albatross Drive, Glenbrook Drive, West Jackson Street, Old Stockton Road, and Raymond Drive.

4.17.1.6 Railway

The City of Ione is served by the Union Pacific Railway and several smaller spur lines accessing the industrial area south of town. Freight movement between the City of Ione and Galt occur approximately three times per week1. There is no direct rail passenger service in Ione. The nearest Amtrak passenger service is located in Stockton.

The proposed Project will bore under the Amador Central Railroad, which is a private historical railroad that travels between Ione and Martell, California (AMCRR 2025).

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 2024. The RTP serves as the backbone of transportation fiscal planning by providing capital program planning for all regional, state, and federally funded projects in the 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 (RTIP)." The RTP also demonstrates compliance with air quality conformity requirements under the federal Clean Air Act (Amador County 2024a).

4.17.2.2 City of Ione General Plan

The Circulation Element describes existing and future transportation conditions and systems. The Element establishes goals, policies, and actions that will guide the City's circulation system, including the roadway network and bicycle and pedestrian facilities. The relevant goals and policies to the proposed Project are listed below:

> *Policy CIR-1.2: All new projects must be consistent with the West Ione Roadway Improvement Strategy (WIRIS). Implement the findings and preferred route alignment outlined in the WIRIS.*

Policy CIR-2.2: Consider how all plans and projects affect all modes of transportation, including bicyclists and pedestrians.

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 with Mitigation Incorporated.

No long-term modifications to roadway features are Proposed that would conflict with adopted policies, plans, or programs regarding alternative transportation. Traffic disruption during project construction, however, may adversely impact access to roadways for alternative transportation. This is considered short-term but potentially significant impact. Implementation of Mitigation Measure TRA-1 will reduce this impact to less than significant with mitigation incorporated.

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 Impact.

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 of Ione. As such, the proposed Project would not be inconsistent with any adopted local or regional transportation plans or CEQA guidelines. A slight increase in traffic may occur during project construction, however, this is considered a short-term and less than 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?	☐	☒	☐	☐

Less Than Significant Impact with Mitigation Incorporated.

Traffic disruption during Project construction would be short-term but may adversely affect access to roadways within the Proposed Project Area. This is considered a short-term but potentially significant impact. Implementation of Mitigation Measure TRA-1 will reduce this impact to less than significant with mitigation incorporated.

4.17.4 Mitigation Measures

TRA-1: **Construction Traffic Management Plan.** If construction activities require roadway closures, a construction traffic management plan (Traffic Plan) shall be prepared, prior to construction, by the Contractor, in coordination with the AWA, California Department of Transportation (if necessary), and the City of Ione. The management plan shall be detailed and comprehensive to adequately mitigate potential conflicts between baseline and construction-related traffic. The Traffic Plan will include, at a minimum, the following measures:

- Adequate off-street worker parking shall be provided along the pipeline route.
- A flagman or signal-controlled one-way traffic-control operation shall be provided where two-way traffic operation is impractical or unsafe.
- Roadway disturbances shall be minimized during non-working hours; open trenches shall be covered with steel plates or by the use of temporary backfill during non-working hours.
- Temporary steel plate trench crossings shall be provided as needed to maintain access to homes, farms, and businesses.
- Construction sites shall be posted with appropriate warning signage at least one week prior to construction to allow local residents to select an alternative travel route.
- Construction staging areas shall be provided to minimize storage of equipment and materials in the traffic lanes.
- All paved surfaces disturbed during construction shall be repaved when work is complete.
- The Contractor shall provide traffic control and diversion plans for review and approval by each appropriate jurisdiction.

- To minimize delays in emergency response during project construction, emergency providers shall be notified in advance. Police, fire protection, and ambulance services shall be notified in advance of the times, duration, and location of construction activities throughout the project's construction process.

4.18 Tribal Cultural Resources

4.18.1 Environmental Setting

Prior to the arrival of European-Americans in the region, indigenous groups speaking more than 100 different languages and occupying a variety of ecological settings inhabited California. Scholars recognized the uniqueness of California's indigenous groups and classified them as belonging to the California culture area. Scholars further subdivided California into four subculture areas: Northwestern, Northeastern, Southern, and Central.

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

At the time of contact, the Miwok were one of the largest groups in California, occupying vast stretches of land extending from the Sierra Nevada, across the Great Valley, and into portions of the North Coast above San Francisco. The Miwok people have been divided by anthropologists into four regional groups: the Bay Miwok, Coast Miwok, Plains Miwok, and Sierra Miwok. The Sierra Miwok are further identified by three subgroups, the Northern Sierra Miwok, Central Sierra Miwok, and Southern Sierra Miwok. The Northern Sierra Miwok occupied the "the foothill and mountain portions of the Stanislaus and Tuolumne drainages." The Central Sierra Miwok occupied the foothill region south of the Cosumnes River to the upper drainages of the Chowchilla and Merced Rivers. The Southern Sierra Miwok occupied the upper drainages of the Merced and Chowchilla rivers. The Project Area is located in the territory of the Northern Sierra Miwok.

Miwok settlement and subsistence patterns were coordinated with the seasonal ripening of plant foods and the movements and migration of game animals. Valley flooding may have prompted certain species, such as elk, antelope, and bears, to migrate to higher ground in the lower valley foothill belt of the Sierra. Anadromous fish, such as steelhead and salmon, migrated up the main rivers and tributaries.

The primary political unit was the "tribelet" with a range of 100 to 300 people. Each tribelet was an independent socio-political organization with territorial boundaries associated with the control of natural resources. Each tribelet had a few permanent settlements (villages) and several seasonal campsites.

The typical mountain dwelling was the conical bark house. Semi-subterranean earth roundhouses were constructed for ceremonial purposes. After the death of a chief, the roundhouse would be burned as part of the Miwok mourning ceremony.

Sierra Miwok used bows and arrows as their primary weapon for hunting and warfare. They made their bows from ash, oak, willow, pepperwood, maple, or hazel. Flaked and ground stone tools included knives, arrow and spear points, arrow straighteners, scrapers, rough cobble pestles and shaped pestles, and bedrock mortars. Non-utilitarian artifacts included pipes and charmstones. Obsidian was highly valued as a raw material for stone tools.

Sierra Miwok groups moved with the seasons to obtain resources within their territory. The most important subsistence resources were acorns (acorns from tan oak and black oak were preferred), seeds, nuts (pine nuts derived from the grey pine were prized) and other plant resources, deer, antelope, rabbits, and fish.

Trade with groups on the eastern side of the Sierras was important. The Sierra Miwok exchanged grass seeds, fish, and shell beads (obtained from the coast) for obsidian, tobacco, pottery, and clay pipes.

4.18.1.1 Summary of Consultation

On January 14, 2025, AWA sent Project notification letters to the three California Native American tribes (United Auburn Indian Community of the Auburn Rancheria, Buena Vista Rancheria of Me-Wuk Indians, and Shingle Springs Band of Miwok Indians) 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 AWA's authorized representative, and a notification that the tribe has 30 days to request consultation.

4.18.1.2 United Auburn Indian Community of the Auburn Rancheria

The United Auburn Indian Community of the Auburn Rancheria did not respond to the AWA'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.

4.18.1.3 Buena Vista Rancheria of Me-Wuk Indians

Buena Vista Rancheria of Me-Wuk Indians did not respond to the AWA'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.

4.18.1.4 Shingle Springs Band of Miwok Indians

Shingle Springs Band of Miwok Indians did not respond to the AWA'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

4.18.2 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 with Mitigation Incorporated.

A search of the Sacred Lands File by the NAHC returned a positive result. A record of all correspondence is provided in Appendix C.

As mentioned above, none of the tribes that were sent the notification letters responded, 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.

4.18.3 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 AWA, 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 AWA, 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 Amador Water Agency (AWA) owns and operates six potable water distribution systems in Amador County California. These water distribution systems serve the five incorporated cities of the County, the State-owned Mule Creek Correctional Facility, and several unincorporated communities. The water supply for these systems consists of four surface water treatment plants (WTPs) and several groundwater wells. It should be noted that in addition to the potable water distribution systems, AWA also serves customers off raw water supply lines (i.e., untreated water) (AWA 2020).

4.19.1.2 Wastewater

AWA owns and operates eleven wastewater systems consisting of nine (9) septic tank effluent and Community Leach Field (CLF) systems (including both pumped and gravity systems), a water treatment plant (WTP) filtration backwash disposal system, and two (2) conventional gravity collection systems. Both types of systems (CLF and conventional) include wastewater lift stations, and AWA also owns and operates two (2) wastewater treatment plants (WWTPs)(AWA 2022a).

According to the AWA Tanner and Ione WTP Capacity Study that was conducted in 2022, the Tanner and Ione water treatment plants provide water for a majority of the Agency's existing potable water customers. The Tanner WTP is the single largest water production facility currently operated by the Agency, and the Ione WTP service area is projected to be the fastest growing service area with projected water demands anticipated to nearly double over the 20-year planning period. Both facilities are aging and present unique operational and expansion challenges to Agency Staff (AWA 2022b).

The Ione WTP, as currently configured, is anticipated to experience much more significant capacity restrictions than the Tanner WTP. Currently, the operational capacity of the WTP is restricted to 2.8 MGD

based on conditions within the flocculator clarifier and exit losses through the clarifier launder and into the filter feed line. The clarifier launder also appears to be undersized and begins to overflow as flow through the plant increases beyond 2.8 MGD. The Ione WTP has the most significant capacity deficiency and is not well suited to provide the projected system demands of 3.87 MGD (2030) and 5.56 MGD (2040). It should also be noted that the Agency's current supply commitments sum to 4.3 MGD and are more than double the Agency's 2020 WTP field tested reliable capacity of 2.07 MGD (AWA 2022b). The proposed project is intended to address this issue.

4.19.1.3 Solid Waste

The Amador County Environmental Health Department has been designated by the Department of Resources Recycling and Recovery (CalRecycle) 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 2024b).

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 of Ione (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 Project proposes to repair and/or replace facilities at the existing 2.19 acre Ione WTP site due to age deterioration and limiting capacity. The project will also include the construction of a new backwash handling 6" pipeline that will extend from the Ione WTP south approximately 1.3 miles to the US Mine property. The Project would actually improve the existing WTP to meet water demands within the Ione 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
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.

The Project proposes to repair and/or replace facilities at the existing 2.19 acre Ione WTP site due to age deterioration and limiting capacity. The project will also include the construction of a new backwash handling 6" pipeline that will extend from the Ione WTP south approximately 1.3 miles to the US Mine property. The proposed Project would be operated by the AWA, and would improve the existing WTP to meet the water demands within the Ione area. 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
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. 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. AWA 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

Wildland fire and the risk of a conflagration is an ongoing concern for the City of Ione. Throughout California, communities are increasingly concerned about wildfire safety as increased development in the foothills and mountain areas and subsequent fire control practices have affected the natural cycle of the ecosystem. Wildland fires affect grass, forest, and brushlands, as well as any structures located within them. Where there is human access to wildland areas the risk of fire increases due to a greater chance for human carelessness and historical fire management practices. Historically, the fire season extends from early spring through late fall of each year during the hotter, dryer months; however, in recent years, the risk of wildfire has become a year around concern. Fire conditions arise from a combination of high temperatures, low moisture content in the air and fuel, accumulation of vegetation, and high winds. While wildfire risk has predominantly been associated with more remote forested areas and wildland urban interface areas, significant wildfires can also occur in more populated, urban areas.

Wildfire can affect all areas of the City. CAL FIRE has estimated that the risk varies across the City and has created maps showing risk variance. According to the CAL FIRE SRA, the Project is located in an area designated as a Moderate severity zone (Amador County 2020).

4.20.2 Regulatory Setting

4.20.2.1 City of Ione General Plan

The General Plan includes a Safety Element that focuses on safety issues to be considered in planning for the present and future development of the City Planning Area. Identified hazards include wildfire, geologic/seismic, flooding, and other natural and man-made hazards (such as hazardous materials). Mitigation-related actions and objective summaries are as follows:

4.20.3 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 with Mitigation Incorporated.

The Project site is not located in a state responsibility area but according to the Amador County Local Hazard Mitigation Plan (Amador County 2020), the chance of a wildfire in the City of Ione is considered likely and is considered to have a high significance. The improvements to the WTP will be done onsite, however, a portion of the pipeline installation project will be constructed within ROW. This would be short term impact during construction, and the project will implement Mitigation Measure TRA-1 which requires a Traffic Management Plan to be prepared by the contractor. This will ensure that impacts to any

emergency evacuation will remain at a less than significant level. Therefore, with implementation of Mitigation Measure TRA-1, this impact 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 is not within an SRA but according to the Amador County Local Hazard Mitigation Plan (Amador County 2020), the chance of a wildfire in the City of Ione is considered likely and is considered to have a high significance. However, the proposed Project does not exacerbate an existing condition by the addition of structures, machinery, people, or recreational opportunities that would encourage the use of flammable materials or create situations that could lead to increase fire risk. The new pipeline will be entirely underground, and as an infrastructure improvement project underneath roadway, the site will be returned to its pre-construction state after project completion. There will be no change to the local population or increase in development associated with the Project that would increase fire risk to the local community. Consequently, the Project would not exacerbate wildfire risks or expose people to pollutant concentrations. 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
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐

Less Than Significant Impact.

As discussed in item b), the proposed Project does not exacerbate fire risk under existing conditions. The Proposed Project does not include installation or maintenance of associated structures (i.e., 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. There would be no impact and no mitigation would be required.

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.

See discussion in items b) and c). The Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, because of runoff, post-fire slope instability, or drainage changes. Therefore, there would be no new impact as a result of the proposed Project.

4.20.4 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 Incorporated.

As stated previously in Section 4.4, Biological Resources, with implementation of Mitigation Measures BIO-1 through BIO-6 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, Cultural Resources, with the implementation of proposed Mitigation Measures CUL-1 and CUL-2, 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.

Project impacts would not be cumulatively considerable. No mitigation is required relevant to potential cumulative impacts.

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 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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LIST OF APPENDICES

AVAILABLE UPON REQUEST

Appendix A –Air Quality and Greenhouse Gas Emissions Assessment Memorandum,
ECORP Consulting, Inc., 2025

Appendix B – Biological Resources Assessment for the Ione Reliability Capacity Expansion Project
ECORP, Consulting, Inc. – Draft

Appendix C – Cultural Resources and Built Environment Inventory and Evaluation Report for the Ione Reliability Capacity Expansion Project (***Confidential***),
ECORP Consulting, Inc., 2025

Appendix D – Energy Consumption Analysis Memorandum,
ECORP Consulting, Inc., 2025

Appendix E –Noise Impact Memorandum,
ECORP Consulting, Inc., 2025

APPENDIX A

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ECORP Consulting, Inc., 2025

APPENDIX B

Biological Resources Assessment for the
Ione Reliability Capacity Expansion Project
ECORP Consulting, Inc., 2025

APPENDIX C

Cultural Resources and Built Environment Inventory and Evaluation Report
for the
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(***Confidential***)

APPENDIX D

Energy Consumption Analysis Memorandum
ECORP Consulting, Inc., 2025

APPENDIX E

Noise Impact Memorandum
ECORP Consulting, Inc., 2025