ENVIRONMENTAL INITIAL STUDY

INITIAL STUDY CHECKLIST
PROPOSED MITIGATED NEGATIVE DECLARATION
Loleta Community Services District
Water Storage Tank Replacement Project

Lead Agency:

Loleta Community Services District
PO Box 236
Loleta, CA 95551

Technical Assistance By:

SHN
1062 G Street, Suite I
Arcata, CA 95521

JUNE 2022

Abbreviations and Acronyms

°F	degrees Fahrenheit
AE	Agricultural Exclusive
APE	Area of Potential Effects
APN	Assessor's Parcel Number
ASCE	American Society of Civil Engineers
AWWA	American Water Works Association
AWWA	American Water Works Association
BAAQMD	Bay Area Air Quality Management District
BMP	best management practices
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CCC	California Coastal Commission
CCE	Community Choice Energy
CDF	California Department of Forestry and Fire Protection
CDFW	California Department of Fish & Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CGP	Construction General Permit
CGS	California Geological Survey
CH_4	methane
CO	Carbon monoxide
CO_2	carbon dioxide
CRHR	California Register of Historical Resources
CSZ	Cascadia Subduction Zone
DDW	Division of Drinking Water
DOC	California Department of Conservation
DOORS	Diesel Off-Road Online Reporting Systems
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
DWSRF	Drinking Water State Revolving Fund
EPA	U.S. Environmental Protection Agency
ESHA	Environmentally Sensitive Habitat Area
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FPD	Fire Protection District
GHG	greenhouse gas
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
HAP	hazardous air pollutants
HBGS	Humboldt Bay Generating Station
HBPP	Humboldt Bay Power Plant
HFC	hydrofluorocarbon
HWMA	Humboldt Waste Management Authority
IDA	International Dark-Sky Association
IS	Initial Study
ITE	Institute of Transportation Engineers
kWh	kilowatt hours
LCSD	Loleta Community Services District
LOS	Level of Service
LUST	leaking underground storage tank
MCAQMD	Mendocino County Air Quality Management District
MCE	Maximum Considered Earthquake
MMRP	Mitigation Monitoring & Reporting Plan
MMTCO2e	million metric tons of CO_2 equivalent
MND	Mitigated Negative Declaration
MTCO2e/yr	metric tons of CO_2 equivalent per year
Mw	Magnitude
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission

Abbreviations & Acronyms (Cont'd)

NCAB	North Coast Air Basin
NCRWQCB	North Coast Regional Water Quality Control Board
NCUAQMD	North Coast Unified Air Quality Management District
NOA	naturally-occurring asbestos
NO_x	nitrogen oxides
NRCS	National Resource Conservation Service
NRHP	National Register of Historic Places
NSR	New Source Review
NWIC	Northwest Information Center
NWS	National Weather Service
O_3	Ozone
OHWM	Ordinary High Water Mark
OPR	Governor's Office of Planning & Research
OSHA	Occupational Safety & Health Administration
PFC	perfluorocarbon
PG&E	Pacific Gas & Electric Company
PM	particulate matter
Ppm	parts per million
PRC	Public Resources Code
PSD	Prevention of Significant Deterioration
PVC	polyvinyl chloride
QSD	Qualified SWPPP Developer
RCEA	Redwood Coast Energy Authority
ROG	reactive organic gases
sf	square feet
SF_6	sulfur hexafluoride
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO	sulfur dioxide
SRA	State Responsibility Area
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
THPO	Tribal Historic Preservation Officer
UBC	Uniform Building Code
USACE	United States Army Corp of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish & Wildlife Service
USGS	United States Geological Survey
VDECS	Verified Diesel Emission Control Strategies
VMT	vehicle miles traveled
VOC	Volatile organic compounds
WRA	William Rich & Associates

Loleta Community Services District
ENVIRONMENTAL CHECKLIST FORM

1. **Project Title:** Loleta Community Services District Water Storage Tank Replacement Project

2. **Lead Agency Name and Address**:

   Loleta Community Services District
   PO Box 236
   Loleta, CA 95551

3. **Contact Person and Phone Number**: Manuel Fonseca, General Manager, (707) 733-1717

4. **Project Location:** The project is located in the town of Loleta, California, southwest of the intersection of US Highway 101 and Loleta Drive. The project site is 5 miles east of the Pacific Ocean and 3.5 miles south of Humboldt Bay and is situated between approximately 100 to 240 feet above mean sea level (Figures 1 and 2). The project is located in the northwestern and northeastern quarters of Section 17, Township 03 North, Range 01 West, in the Humboldt Meridian. The two proposed new water storage tanks would be located on a recently created parcel owned by Loleta Community Services District (LCSD). The approximately 0.61-acre parcel was recently relinquished to LCSD for this project by the County of Humboldt. An Assessor's parcel number (APN) has not yet been assigned to the new parcel (Figures 3, 4, and 5). The existing water storage tank to be removed is located on APN 309-042-025. Two aboveground portions of the existing water main would be removed on APN 309-042-030, a privately owned parcel, using hand tools. A new water main would be installed along Loleta Drive to connect the new water tanks to the distribution network (Figure 3). The coordinates for the project's central location are latitude 40.641613° and longitude -124.212274°. The project is located entirely within the Coastal Zone, in the "Local" coastal development permit jurisdiction.

5. **Applicant's Name and Address:**

   Loleta Community Services District
   PO Box 236
   Loleta, CA 95551

6. **General Plan Designation:** Agricultural Exclusive (AE)

7. **Zoning:** Agriculture Exclusive, 60-acre minimum lot size, with Transitional Agricultural Lands combining zone (AE-60/T)

8. **Existing Facilities and Use:** LCSD owns and operates a community water system which includes water supply, treatment, storage, and distribution facilities which serve the Town of Loleta. With an original design capacity of approximately 225,000 gallons, the existing redwood water storage tank is now failing with several leaks, resulting in significant water loss and a reduction in the tank's useable capacity. In addition, the tank does not meet current seismic design standards, does not meet the minimum storage capacity needed for the community, and is vulnerable to potential wildfires. The existing water storage tank is connected to the existing pressure distribution system through an 8-inch diameter polyvinyl chloride (PVC) force main that runs northwest through an agricultural field located on APN 309-042-030. This 8-inch water main branches immediately after a stream crossing. One branch traverses an agricultural field as it passes north to Loleta Drive, where it connects to the distribution network. The second branch continues west-northwest to the distribution network at a second location along Loleta Drive after crossing three parcels – APNs 309-041-017, 309-041-010, and 309-041-001 (Figure 2). The current water main location within agricultural fields and crossing remote streambeds makes access for maintenance difficult. During periods when wet weather makes the agricultural field impassable by vehicle, repair and maintenance may be impossible, putting the community's water supply at risk. The existing redwood storage tank is accessed from the US Highway 101 Southbound onramp from Loleta Drive (Figure 3). LCSD has an encroachment permit from Caltrans to access the tank. A permanent easement also runs along the eastern private property boundary of APN 309-042-030, allowing LCSD staff to access the tank for operation and maintenance. For further detail of the project site's existing condition, see Section 2.1 of the Project Description.

9. **Description of Project:** LCSD proposes to construct two new water storage tanks to replace the existing water storage tank and to meet current and future water storage needs for the community. The new tanks would comply with current seismic and structural codes and provide LCSD with a more secure source of water storage for the foreseeable future. LCSD would construct approximately 1,400 feet of new below-ground 12-inch diameter PVC water main to connect the new water tanks to the existing

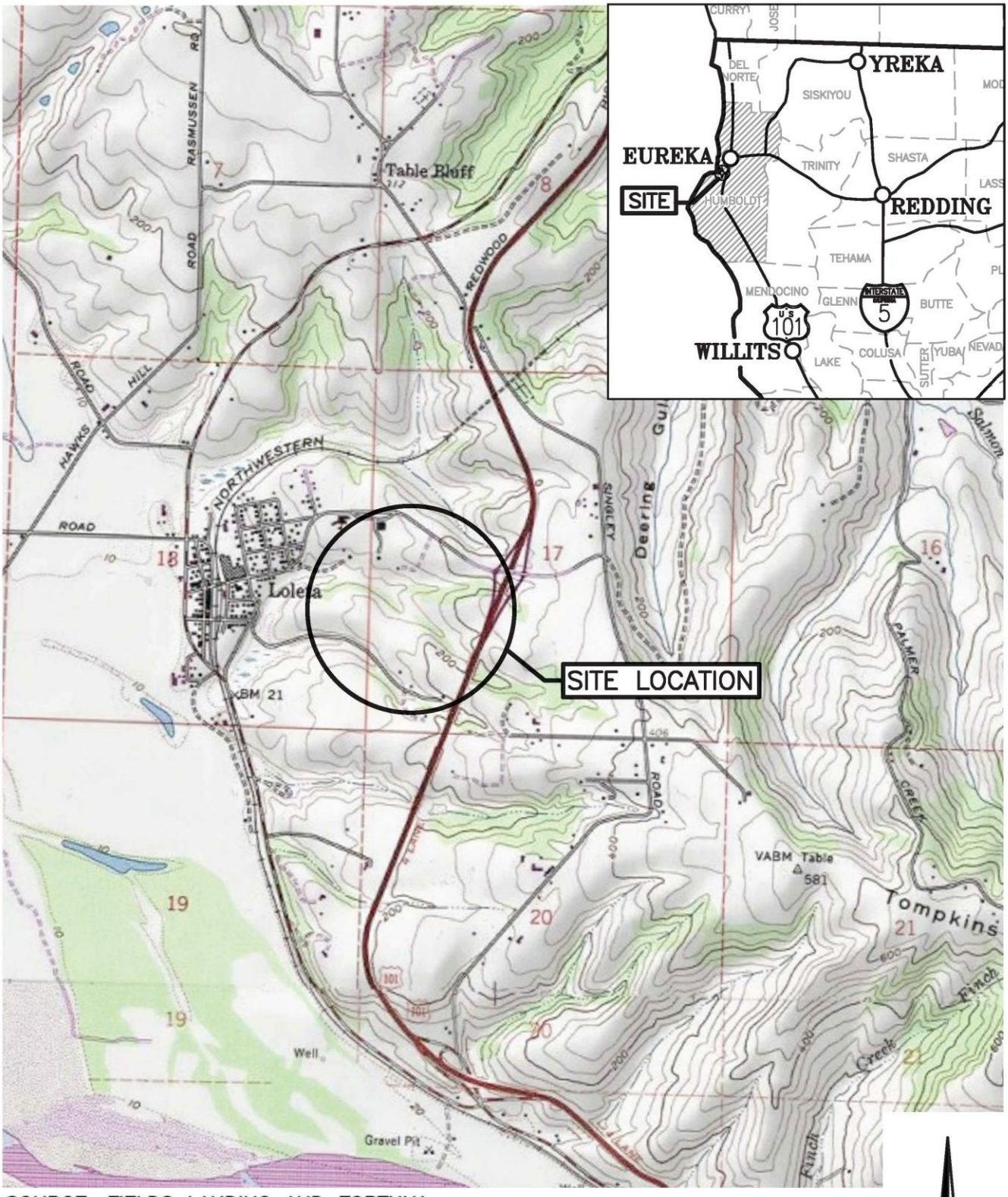
pressure distribution system. The new water main would be installed along the south side of Loleta Drive within the County right-of-way where it would tie into the existing pressure distribution system near the Loleta Fireman's Pavilion. LCSD would demolish the existing water tank and remove all aboveground piping and appurtenances. LCSD would remove the two exposed portions of the existing water main between the redwood tank and the distribution system, which the project will make defunct, and the remainder of the water main would be capped and abandoned in place below ground. Regarding operations, the proposed project would alter the location of LCSD's water storage and conveyance infrastructure but would not change the type of ongoing operations. For further detail of the proposed project, see Section 2.2 of the Project Description.

10. **Surrounding Land Uses and Setting:** The project site is bordered to the north by Loleta Drive and undeveloped agricultural land. To the east, the project is bordered by US Highway 101 and undeveloped agricultural land. The project is bordered to the south by agricultural land and rural residential development. To the west, the project is bordered by the town of Loleta and agricultural land and rural residential development. Ravines cross the project site in several locations.

11. **Other public agencies whose approval is required (for example, permits, financing approval, or participation agreement):** LCSD as Lead Agency for the proposed project has discretionary authority over the primary project proposal. To implement this project, the applicant may need to obtain, at a minimum, the following discretionary permits/approvals from other agencies:
    - County of Humboldt-Planning and Building Department
    - California State Water Resources Control Board Drinking Water State Revolving Fund

12. **Tribal Consultation:** A request for tribal consultation pursuant to AB 52 was initiated by LCSD on October 5, 2021 with the Wiyot Tribe, Bear River Band of Rohnerville Rancheria, Blue Lake Rancheria, and Karuk Tribe. On October 28, 2021, the THPO for the Blue Lake Rancheria responded that the project is outside the area of concern for cultural resources mapped by the Blue Lake Rancheria, and they declined the invitation to consult. No other responses were received.

13. **Purpose of this Document:** This document only seeks to analyze the environmental impacts of the construction and operation of the proposed Loleta Community Services District Water Storage Tank Replacement Project.



SOURCE: FIELDS LANDING AND FORTUNA USGS 7.5 MINUTE QUADRANGLES

1"=2000'±

SHN	Loleta Community Services District Water Storage Tank Replacement Project Loleta, California	Site Location Map SHN 019039.210
	December 2020 | 019039-210-SITE-LCTN	Figure 1

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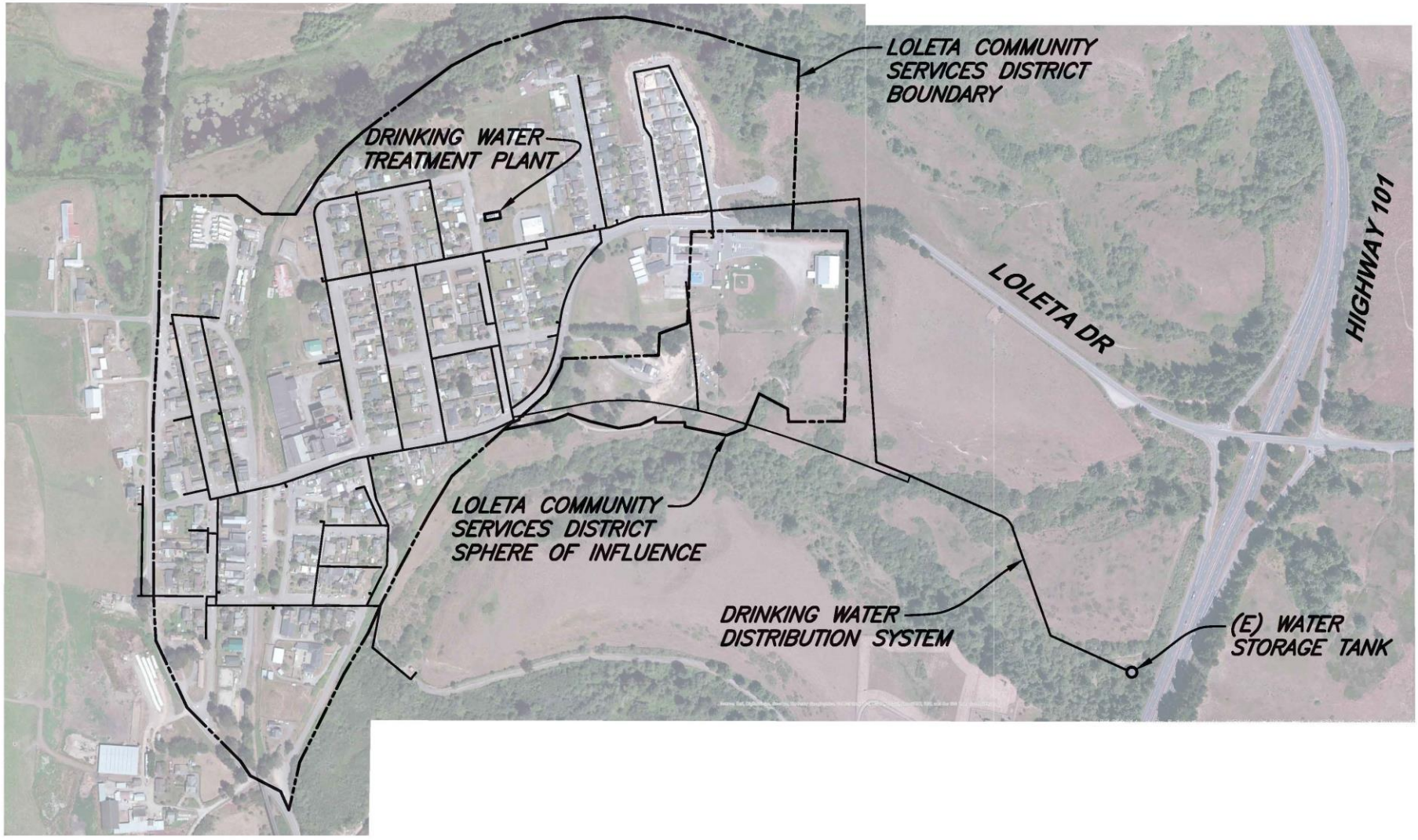

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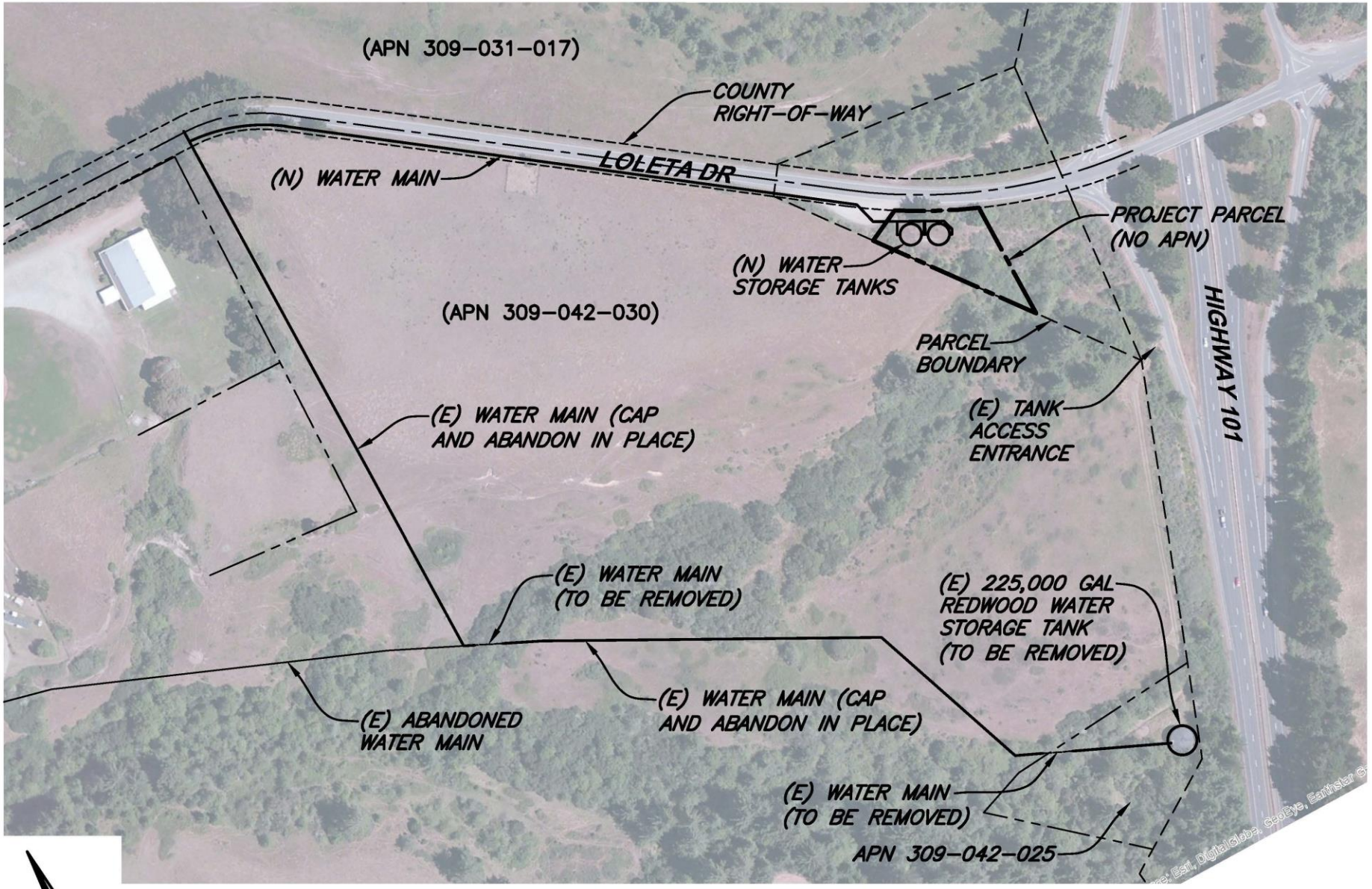
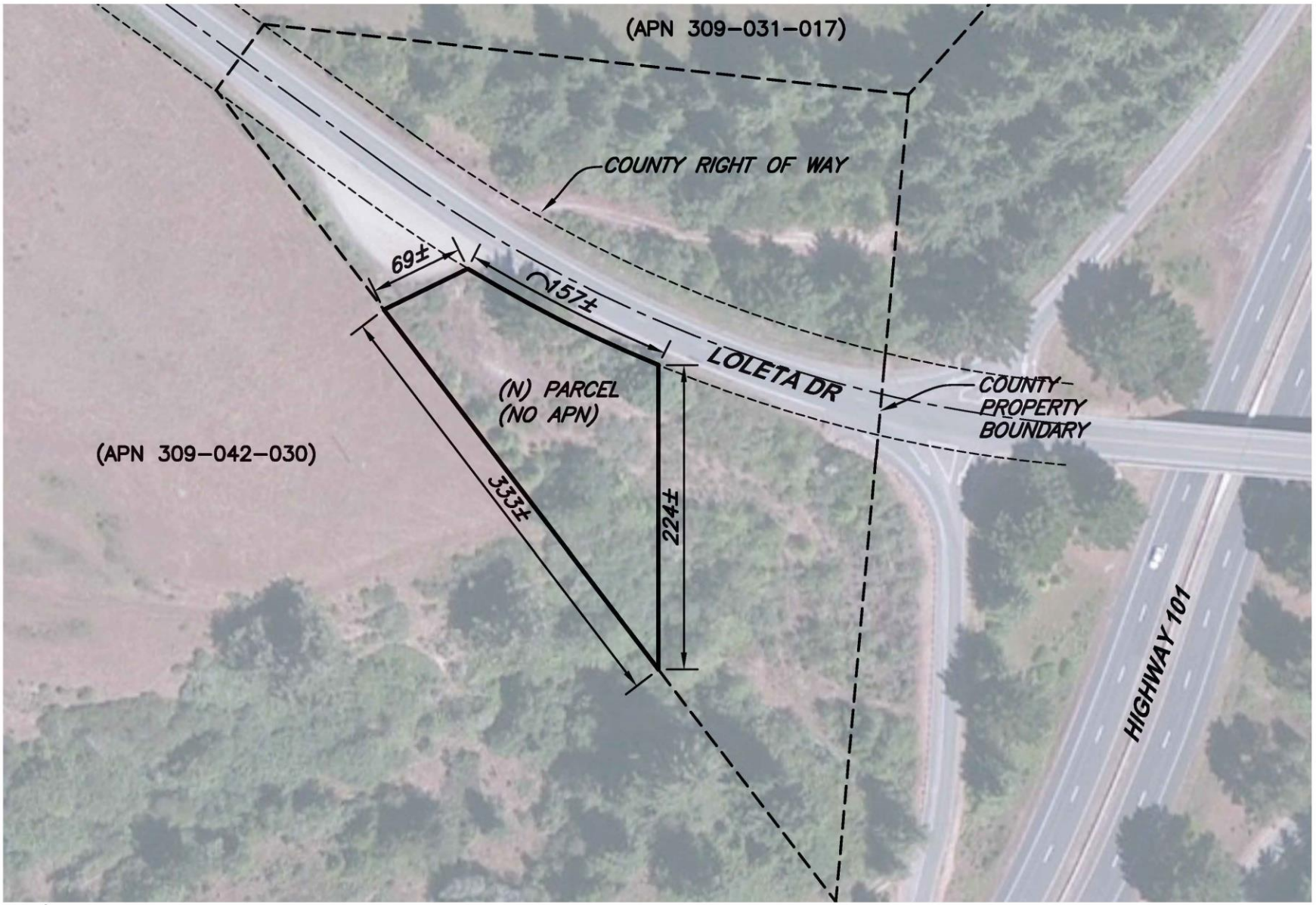
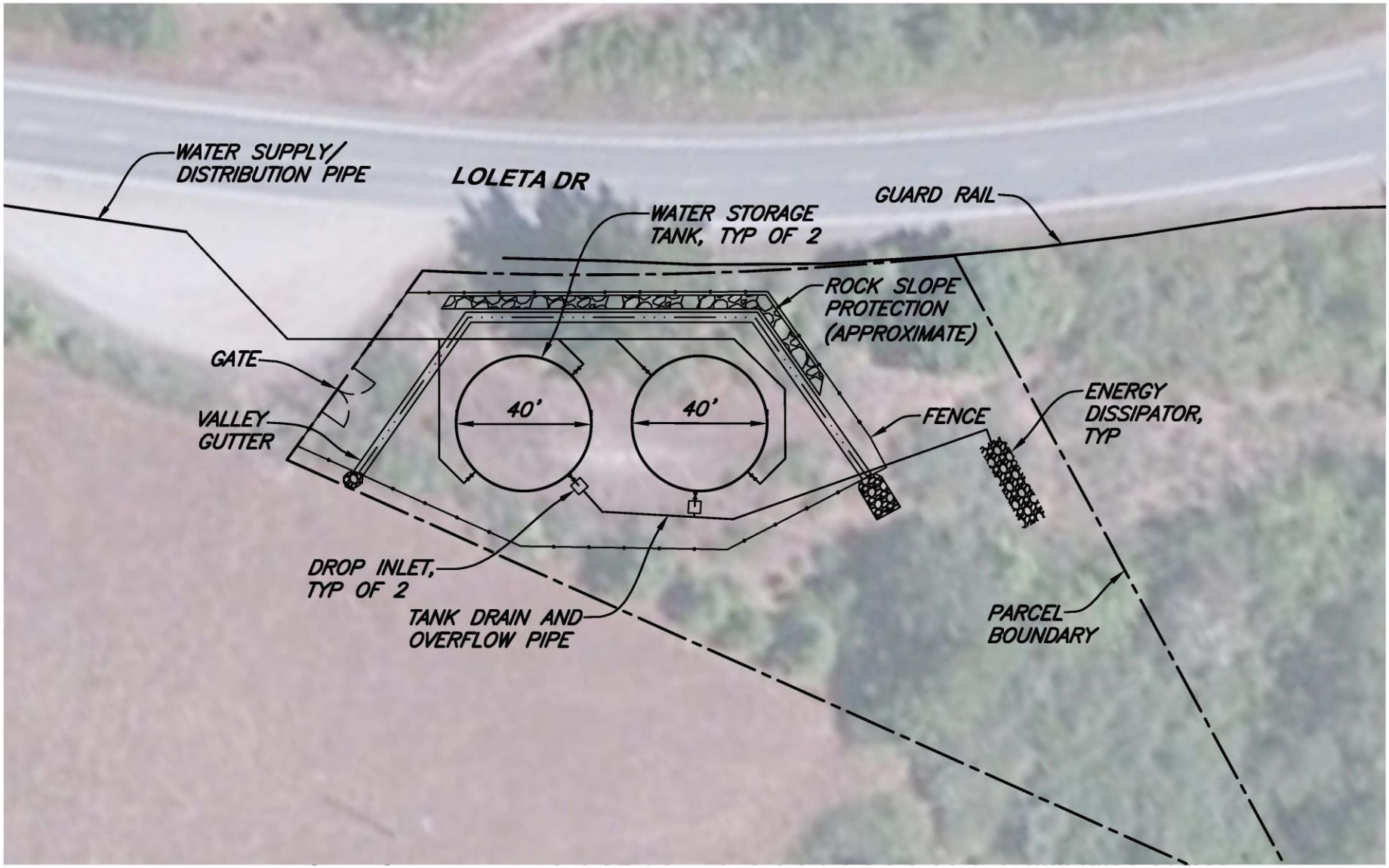
Loleta Community Services District Water Storage Tank Replacement Project Loleta, California		Existing Facilities SHN 019039.210
December 2020	019039-210-LCSD-MAP	Figure 2



Loleta Community Services District Water Storage Tank Replacement Project Loleta, California		Project Vicinity SHN 019039.210
July 2021	019039-210-PROJECT-SITE	Figure 3



Loleta Community Services District Water Storage Tank Replacement Project Loleta, California		New Property Boundary SHN 019039
May 2021	019039-LCSD-PARCEL-COUNTY	Figure 4



Loleta Community Services District Water Storage Tank Replacement Project Loleta, California		Preliminary Site Plan SHN 019039.300
November 2021	019039-300-SITE-PLAN	Figure 5

SECTION 1.0
INTRODUCTION

1.1 Introduction and Regulatory Guidance

This document is an Initial Study (IS) that summarizes the technical studies prepared for the proposed Loleta Community Services District Water Storage Tank Replacement Project and provides justification for a Mitigated Negative Declaration (MND). This document has been prepared in accordance with the current California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., and the State CEQA Guidelines. The purpose of this document is to evaluate the potential environmental impacts of the proposed Loleta Community Services District Water Storage Tank Replacement Project along Loleta Drive in the County of Humboldt. Mitigation measures have been proposed to avoid or minimize any significant impacts that were identified.

1.2 Lead Agency

The Lead Agency is the public agency with primary responsibility for implementing a proposed project. Accordingly, LCSD is the CEQA Lead Agency.

1.3 Purpose of the Initial Study

CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. A CEQA IS is a public document used by the decision-making lead agency to determine whether a project may have a significant impact on the environment. If the agency finds that the proposed project may have a significant impact on the environment, but that these impacts will be reduced to a less-than-significant level through revisions to the project and/or implementation of specific mitigation measures, an MND shall be prepared.

This IS/MND is a public information document that describes the proposed project, existing environmental setting at the project site, and potential environmental impacts of construction and operation of the proposed project. It is intended to inform the public and decision-makers of the proposed project's potential environmental impacts and to document the lead agency's compliance with CEQA and the State CEQA Guidelines.

1.4 Review Process

This IS/MND is being circulated for public and agency review as required by CEQA. Because state agencies will act as responsible or trustee agencies, the County will circulate the IS/MND to the State Clearinghouse of the Governor's Office of Planning and Research (OPR) for distribution and a 30-day review period.

During the review period, written comments may be submitted to:

Manuel Fonseca, General Manager
Loleta Community Services District
PO Box 236
Loleta, CA 95551

SECTION 2.0
PROJECT DESCRIPTION

2.1 Project Location and Setting

Regional Setting

The Loleta Community Services District (LCSD) is located on the northern coast of California, approximately 15 miles south of Eureka in Humboldt County (Figure 1). Loleta is an unincorporated community located 1 mile from the Eel River, which drains 10% of the total California watershed, and 5 miles from the Pacific Ocean and Humboldt Bay. The average 30-year precipitation between October 1 and September 30 for the region is 40.33 inches, with most of the precipitation occurring between October and April (NWS, 2021).

Local Setting

The proposed project is located in the town of Loleta. Situated adjacent to US Highway 101, the town of Loleta has a population of 828 people according to the 2020 decennial census. LCSD covers an area of approximately 0.165 square miles (Figure 2). Loleta is situated at the base of Tompkins Hill, west of Deering Gulch, at the foot of the southern slopes of Table Bluff, a 300-foot-high sandstone ridge forming a natural barrier between the Eel River Valley and Humboldt Bay. Elevations at the project site are between approximately 100 and 240 feet above mean sea level. The highest elevations are represented at the Loleta Drive interchange with US Highway 101, dropping to approximately 200 feet at the existing tank location, and 100 feet at the lowest pipe stream crossing (Figure 2).

Project Location

The project is located in the town of Loleta, California, southwest of the intersection of US Highway 101 and Loleta Drive. The project site is 5 miles east of the Pacific Ocean and 3.5 miles south of Humboldt Bay and is situated between approximately 100 to 240 feet above mean sea level (Figures 1 and 2). The two proposed new water storage tanks would be located on a recently created parcel owned by LCSD. The approximately 0.61-acre parcel was recently relinquished to LCSD for this project by the County of Humboldt. An Assessor's parcel number (APN) has not yet been assigned to the new parcel (Figures 3 and 4). The existing water storage tank to be removed is located on APN 309-042-025. Two aboveground portions of the existing water main would be removed on APN 309-042-030, a privately owned parcel. A new water main would be installed along Loleta Drive to connect the new water tanks to the distribution network (Figure 3). The project is located in the northwestern and northeastern quarters of Section 17, Township 03 North, Range 01 West, in the Humboldt Meridian. The coordinates for the project's central location are latitude 40.641613° and longitude -124.212274°. The project is located entirely within the Coastal Zone, in the "Local" coastal development permit jurisdiction.

The project site is bordered to the north by Loleta Drive and undeveloped agricultural land. To the east, the project is bordered by US Highway 101 and undeveloped agricultural land. The project is bordered to the south by agricultural land and rural residential development. To the west, the project is bordered by the town of Loleta and agricultural land and rural residential development. Ravines cross the project site in several locations.

Existing Conditions

Water System Overview. LCSD owns and operates a community water system which includes water supply, treatment, storage, and distribution facilities which serve the town of Loleta. Two groundwater wells supply water to LCSD's water treatment plant, which disinfects and filters the water before sending it to the distribution system and a redwood water storage tank for potable water storage, which gravity feeds (and maintains pressure in) the distribution system. Water entering the distribution system serves end users and fills the storage tank simultaneously based on pressure within the distribution system. The location of the existing water storage tank and connection to the existing distribution network are shown in Figures 2 and 3. The California State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) has jurisdiction over the LCSD drinking water system.

Water Storage Tank. With an original design capacity of approximately 225,000 gallons, the existing redwood water tank is now failing with several leaks, resulting in significant water loss and a reduction in the tank's useable capacity. Current tank capacity is down to approximately 103,400 gallons. Based on the estimated 2043 storage volume required of 450,013 gallons, the existing system currently holds less than 23% of the necessary storage volume. System losses from the leaking tank represent a loss rate of 20%-24%. In addition, the tank does not meet current seismic design standards, does not meet the minimum storage capacity needed for the community, and is vulnerable to potential wildfires (SHN, 2021). The existing redwood water tank is the only potable water storage tank in the District's water system. The existing tank is approximately 44 feet in diameter and 20 feet in height.

Water Main. The existing water storage tank is connected to the existing pressure distribution system through an 8-inch diameter PVC force main that runs northwest through an agricultural field located on APN 309-042-030. This 8-inch water main branches immediately after a stream crossing. One branch traverses an agricultural field as it passes north to Loleta Drive, where it connects to the distribution network. The second branch continues west-northwest to the distribution network at a second location along Loleta Drive after crossing three parcels – APNs 309-041-017, 309-041-010, and 309-041-001 (Figure 2).

The current water main location within agricultural fields and crossing remote streambeds makes access for maintenance difficult. During periods when wet weather makes the agricultural field impassable by vehicle, repair and maintenance may be impossible, putting the community's water supply at risk.

Tank Access Road. The existing redwood storage tank is accessed from the US Highway 101 Southbound onramp from Loleta Drive (Figure 3). LCSD has an encroachment permit from the California Department of Transportation (Caltrans) to access the tank. A permanent easement also runs along the eastern private property boundary of APN 309-042-030, allowing LCSD staff to access the tank for operation and maintenance. Caltrans determined that LCSD obtaining an encroachment permit to replace the existing tank at the existing site and authorizing continued long-term use is very unlikely. However, Caltrans indicated that obtaining an encroachment permit for tank removal is likely. The existing access route is a single lane unpaved road approximately 600 feet long, with slope gradients up to approximately 8 percent.

Geotechnical Borings and Consideration of Alternatives. LCSD investigated alternatives to the existing redwood water tank location and drilled groups of geotechnical boreholes at several locations to determine the suitability of the geology to support large water storage tanks. The geotechnical borings characterized the subsurface conditions underlying the proposed water storage tank footprints in order to develop appropriate foundation type and design criteria, including allowable bearing pressures and foundation embedment depth, along with provisions to mitigate the effects of adverse soil conditions such as liquefaction and consolidation settlement. Based on the findings of the geotechnical analysis, the County-owned property was selected as the preferred new tank site. A 0.61-acre portion of the County-owned parcel was recently relinquished to LCSD for this project by the County of Humboldt.

2.2 Proposed Project

New Water Storage Tanks. LCSD proposes to construct two new water storage tanks to replace the existing tank and to meet current and future water storage needs for the community. The proposed new tank location is on a newly created parcel conveyed from the County of Humboldt for this project (APN pending; Figures 3, 4, and 5). The two new tanks will be either bolted glass-fused-to-steel or welded epoxy-coated steel water storage tanks with minimum individual storage capacities of 225,006 gallons each, for a total minimum storage capacity of 450,013 gallons (the maximum storage capacity allowable under the proposed SWRCB financing program). Each tank will be approximately 40 feet in diameter and 25-30 feet in height. Bolted glass-fused-to-steel tanks are bolted steel tanks that have a baked on ceramic coating with superior adherence to the steel and excellent corrosion resistance. The design life of a bolted glass-fused-to-steel tank is estimated at 60 years. The proposed glass-fused-to-steel tanks are not anticipated to reach the end of their design life until approximately 2083. The glass coating can only be factory applied; glass-fused-to-steel tanks cannot be recoated. The manufacturer recommends that glass-fused-to-steel tanks have an annual inspection of the tank interior and exterior, as well as annual cathodic protection readings. The coatings are very durable and typically do not require repairs, although anodes may need to be replaced periodically. Welded epoxy-coated steel tanks are considered to have a 100-year design life but typically need to be recoated every 15-20 years. The advantage of welded tanks over bolted steel tanks is that they have a thicker wall and are less prone to leakage. Recoating costs are a significant factor in the maintenance cost of welded steel tanks. These tanks should be visually inspected annually, and cathodic protection readings should be taken. Cathodic protection system components should be replaced as needed to extend the tank life, and any identified coating defects should be repaired as early as possible to minimize further coating deterioration and metal loss. The new tanks will comply with current seismic and structural codes and provide LCSD with a more secure source of water storage for the foreseeable future. Development of the new tanks site will include security fencing and lighting, rock slope protection along the proposed cut slope, tank overflow piping and energy dissipation, and a guard rail between Loleta Drive and the new tanks site. Figure 5 includes a site plan for the proposed tanks and associated appurtenances. The proposed project would alter the location of and improve LCSD's water storage and conveyance infrastructure but would not change the type of ongoing operations nor increase the water service area, water withdrawals, or water entitlements.

All new tank and tank foundation designs will be designed by the tank manufacturer and comply with the latest edition of applicable tank, structural, and seismic codes, including the following:

- California Building Code
- American Society of Civil Engineers (ASCE)
    - ASCE 7, Minimum Design Loads and Associated Criteria for Buildings and Other Structures

- American Water Works Association (AWWA) tank standards for applicable tank type
  - AWWA D100, Welded Carbon Steel Tanks for Water Storage
  - AWWA D102, Coating Steel Water Storage Tanks
  - AWWA D103, Factory-Coated Bolted Steel Tanks for Water Storage
  - AWWA D104, Automatically Controlled, Impressed-Current Cathodic Protection for the Interior of Steel Water Storage
  - AWWA D106, Sacrificial Anode Cathodic Protection Systems for the Interior Submerged Surfaces of Steel Water Storage Tanks

Tanks will be furnished with all necessary appurtenances for code compliance and operations and maintenance. Appurtenances for each tank will include an external ladder with fall protection in accordance with the Occupational Safety and Health Administration (OSHA), roof railing, access ways, liquid level indicator, tank vent, and external pipes for overflow, drain, inlet, and outlet. Steel tanks will have appropriate cathodic protection to minimize corrosion of the tank walls, roof, and appurtenances; anticipated to be sacrificial anode cathodic protection in accordance with AWWA D106.

New Water Main. Using open trenching (or potentially horizontal directional drilling) construction methods, LCSD proposes to construct approximately 1,400 feet of new below-ground 12-inch diameter PVC water main to connect the new water tanks to the existing pressure distribution system. For ease of access and maintenance, the new water main is proposed to be installed along the south side of Loleta Drive within the County right-of-way, where it will tie into the existing pressure distribution system near the Loleta Fireman's Pavilion (Figures 3 and 5).

Remove Existing Water Storage Tank. The existing tank is deteriorated and would pose a hazard if left to deteriorate further without securing the site. Due to the remote location of the site, and the difficulty in accessing the site, this project proposes to demolish the tank and remove all aboveground piping and appurtenances. This will occur after construction of the two new water storage tanks and their connection to the existing system (Figure 3).

Remove Exposed Portions of Existing Water Main. After construction of the two new water storage tanks and their connection to the existing system, LCSD proposes to remove the exposed portions of the existing water main between the redwood tank and the distribution system which the project will make defunct (Figure 3). The two exposed segments cross small water courses above ground on private property. This project proposes to remove the aboveground segments using hand tools only and with negligible disturbance of vegetation or ground, and to cap and abandon in place the remainder of the water main below ground. Segments of exposed main are roughly 4-inch diameter steel pipe; one segment is approximately 40 feet in length, and the second segment is approximately 60 feet in length.

Exposed pipes would be cut into sections using hand tools and pulled out by hand. Specifically, pipes would be cut 20 feet from the edge of riparian vegetation, as well as in the center of the crossing, and would be pulled out of the riparian area into the surrounding pasture. Should the sections of pipe be too large to remove, then the pipe shall be cut into smaller sections that will be removed by hand. This would require temporary incursion on foot into the riparian habitat to cut and retrieve the sections. All metal shavings created during pipe cutting would be captured and properly disposed of. Removing the aboveground segments will reduce future impacts to the small water courses, while minimizing ground-disturbing activities by abandoning the below-ground segments in place.

This plan would not involve vegetation disturbance or soil disturbance within 40 feet of a stream/drainage and would not have hydrological impacts to any adjacent jurisdictional (RWQCB or California Department of Fish and Wildlife [CDFW]) features. Minor soil disturbance would be required outside of the riparian habitat to cut the pipe 20 feet back from the edge of riparian vegetation. Rather than abandoning the entire pipeline in place, hand removal of the exposed sections is the least environmentally damaging option. Removal of the pipes using the non-invasive methods described will ensure the debris is removed with negligible temporary impacts. Pipe removal would take place immediately adjacent to jurisdictional features, as the pipeline currently crosses two streams with associated riparian habitat, but hand removal should not impact any adjacent jurisdictional features. Care will be taken to keep the pipe out of the stream during removal.

Operations. The proposed project would alter the location of and improve LCSD's water storage and conveyance infrastructure but would not change the type of ongoing operations nor increase the water service area, water withdrawals, or water entitlements.

Equipment, Access, and Staging. Equipment for construction of the new tanks would include cranes, excavators, backhoes, loaders, small skid-steer loaders, flatbed semi-trucks, dump trucks, hydraulic lifts, personnel transport vehicles, service trucks, cement trucks, and

compaction equipment. Construction access will be from Loleta Drive. Permanent access to the new tank site will be constructed from an existing pull-out on Loleta Drive. Construction equipment and materials will be staged in the pull-out on Loleta Drive, on the new tank site, and possibly in the parking lot of the Loleta Fireman's Pavilion.

Equipment for construction of the new water main would include backhoes, small skid-steer loaders, compaction equipment, personnel transport vehicles, service trucks, dump trucks, and paving equipment. Access for this component of construction will be from Loleta Drive, along which the new water main will be constructed. Equipment and materials for this task will be staged along Loleta Drive, at the pull-out on Loleta Drive, at the new tank site, and possibly in the parking lot of the Loleta Fireman's Pavilion.

Equipment for demolition and removal of the existing water tank would include cranes, excavators, dump trucks, loaders, small skid-steer loaders, backhoes, hydraulic lifts, service trucks, and personnel transport vehicles. Access for this activity will be from LCSD's existing easement from the US Highway 101 southbound onramp. Equipment and materials for this activity will be staged at the pull-out on Loleta Drive, at the new tank site, and possibly in the parking lot of the Loleta Fireman's Pavilion.

As previously described, exposed portions of the existing water main will be removed using hand tools only to minimize impacts. Access for pipe removal will be by temporary incursion on foot only. No need for staging of equipment or materials is anticipated.

Timing of Construction. LCSD plans to construct the proposed project as soon as the applicable authorizations are approved. Construction activities are anticipated to occur over approximately three months and will occur between the hours of 7:30 am and 5:30 pm.

Best Management Practices and Avoidance and Minimization Measures. The following construction best management practices (BMPs) and avoidance and minimization measures will be implemented during project construction:

- Limit ground disturbance and vegetation clearing to the minimal extent necessary to accomplish project goals.
- If rainfall is forecasted during the time construction activities are being performed, all onsite stockpiles of soil, gravel, and construction debris shall be covered and secured before the onset of precipitation.
- Stabilize exposed soils at the end of the job, using mulch or other erosion control measures.
- All trash shall be removed from the work site and disposed of on a regular basis.
- All spoils and construction debris will be hauled offsite and disposed of at an appropriately permitted upland disposal facility (landfill or recycling plant).
- All equipment used during construction shall be free of oil and fuel leaks at all times.
- All equipment fueling shall be performed more than 100 feet from any wetlands. BMPs for leak protection and fuel handling/storage shall be maintained.
- Hazardous materials management equipment, including oil containment booms and absorbent pads shall be available and immediately on hand at the project site. A registered first-response, professional, hazardous materials clean-up/remediation service shall be locally available on call. Any accidental spill shall be contained rapidly and cleaned up. In the event of a spill, LCSD shall notify the appropriate regulatory agencies immediately.
- To minimize wildlife entanglement and plastic debris pollution, any temporary rolled erosion or sediment control products used (such as fiber rolls, erosion control blankets, and mulch control netting) shall either be netting-free, or shall contain plastic-free biodegradable natural-fiber netting (such as jute, sisal, or coir fiber). Degradable plastic netting is not an acceptable alternative. When no longer required, temporary erosion and sediment control products shall be promptly removed.
- To avoid potential impacts to nesting birds, in accordance with the Migratory Bird Treaty Act, one of the following shall be implemented:
    - Conduct vegetation removal and other ground-disturbance activities associated with any construction activities between late August and mid-March, when birds are not typically nesting, or
    - If vegetation removal or ground-disturbing activity is to take place during the nesting season (March 15 to August 15 for most birds), a qualified biologist shall conduct a pre-construction nesting bird survey. Pre-construction surveys for nesting pairs, nests, and eggs shall occur within the construction limits and within 100 feet (200 feet for raptors) of the construction limits. If active nests are encountered, species-specific measures shall be prepared by a qualified biologist in consultation with the USFWS and CDFW and implemented to prevent abandonment of the active nest.

- Where project construction activities occur within close proximity (50 feet) to special-status resources, these resources shall be demarcated by high-visibility construction fencing during the project construction period in a manner sufficient to avoid unintentional impacts.
- Any reseeding of disturbed areas within 50 feet of sensitive vegetation communities shall use native seed mix consistent with those found within the adjacent sensitive vegetation communities, or sterile barley seed.
- Fully implement all conditions of approval required by permit terms.

The proposed project would be constructed with funding from the California State Water Resources Control Board Drinking Water State Revolving Fund (DWSRF).

SECTION 3.0
ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

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

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

DETERMINATION:

On the basis of this initial evaluation:

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

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

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

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

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

Signature _____ Date _____

Printed name _____ For Loleta Community Services District

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (for example, the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (for example, the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take into account the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less-than-significant with mitigation, or less-than-significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less-than-significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less-than-significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level (mitigation measures from Section 21, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addresses. Identify which effects from the above checklist were within the scope of and adequately analyze in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less-than-significant with Mitigation Measures Incorporated," describe the mitigation measures which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (for example, general plan, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats, however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue identifies:

   a) The significant criteria or threshold, if any, used to evaluate each question; and

   b) The mitigation measure identified, if any, to reduce the impact to less-than-significant.

I. **AESTHETICS:** *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?				**X**
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				**X**
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?			**X**	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		**X**		

Setting: LCSD proposes to construct two new water storage tanks to replace the existing water storage tank and to meet current and future water storage needs for the community of Loleta. LCSD would construct approximately 1,400 feet of new below-ground 12-inch diameter PVC water main along the south side of Loleta Drive within the County right-of-way to connect the new water tanks to the existing pressure distribution system near the Loleta Fireman's Pavilion. LCSD would demolish the existing water tank and remove all aboveground piping and appurtenances. LCSD would remove the two exposed portions of the existing water main between the redwood tank and the distribution system which the project will make defunct, and the remainder of the water main would be capped and abandoned in place below ground. The total project footprint is approximately 1.8 acres in size. Regarding operations, the proposed project would alter the location of LCSD's water storage and conveyance infrastructure but would not change the type of ongoing operations.

The project site is situated between approximately 100- and 240-foot elevation above mean sea level, with the highest elevations represented at the Loleta Drive interchange above the new tanks location, dropping to approximately 200 feet at the existing tank location, and 100 feet at the lowest pipe stream crossing. The site is primarily located on a broad, dissected gently to steeply sloping, uplifted marine terrace known as Table Bluff, with slopes between 2 and 30 percent in the project area. Table Bluff is intermittently dissected by deep ravines, which results in localized steep slopes.

The project area has remained relatively unchanged over the last 30 years with the exception of increased vegetation cover within the 1.4-acre existing tank parcel (APN 309-042-025) and 0.61-acre new tanks parcel (APN pending), and the construction of a single-family home and barn within the privately-owned 50-acre agricultural parcel (APN 309-042-030). Agricultural use of the privately-owned parcel appears unchanged. The existing water tank has been onsite for water storage since 1972. Vegetation at the proposed new tank site along Loleta Drive consists mostly of early seral woody vegetation reflecting past disturbance of the site, likely during the development of US Highway 101 and Loleta Drive and is transitioning to conifer cover. Several mature Monterey pines also exist along that parcel's Loleta Drive frontage. Agricultural land and rural residential development exist to the south, north, and west, and US Highway 101 is immediately east of the project. Ravines represent remnant habitat within the agricultural lands and development, while highway and local road right-of-way are dominated by shrubby, often non-native species, early successional habitat (Figure 3). Views of the project site on April 23, 2019 are provided in Figures 6 through 9.

The project site is not located along an officially designated State scenic highway. The Humboldt County General Plan Volume II Eel River Area Plan of the Humboldt County Local Coastal Program (Eel River Area Plan; Humboldt County, 2014) serves as the basis for land use planning within this portion of the Coastal Zone. The Eel River Area Plan defines "Highly Scenic Areas" as generally including the following:

1) Landscape preservation projects designated by the California Department of Parks and Recreation in the California Coastline Preservation and Recreation Plan;

2) Open areas of particular value in preserving natural landforms and significant vegetation, or in providing attractive transitions between natural and urbanized areas; and

3) Other scenic areas and historical district designated by cities and counties.

Figure 6: Looking east across new tanks parcel in the vicinity of proposed new tanks

Figure 7: Looking south along existing access easement to existing tank

Figure 8: Existing water tank to be removed

Figure 9: Looking west down Loleta Drive with new tanks parcel to the left

The California Coastline Preservation and Recreation Plan does not designate any landscape preservation projects in the Loleta area (California Department of Parks and Recreation, 1972). The Eel River Area Plan does not designate any scenic vistas in the Loleta area.

The proposed location for construction of the new water storage tanks is currently partially screened from view from Loleta Drive by trees and vegetation. Following construction of the new tanks, they will be visible from Loleta Drive. Neither the existing tank location nor the areas of proposed aboveground pipe removal are visible from Loleta Drive or US Highway 101. The section of Loleta Drive along which new water main is to be constructed is visible from Loleta Drive. Construction at the new tanks site and construction of the new water main will be visible from vantage points along Loleta Drive, while removal of the existing water tank and the aboveground portions of the existing water main will largely not. The two new water tanks will each be approximately 40 feet in diameter and 25-30 feet in height. The bases of the new water tanks will be constructed at an elevation ranging from 0 to 9 feet below the level of Loleta Drive, so they will be visible from Loleta Drive following project construction.

There is no lighting associated with the existing water tank, water main, or the newly created parcel conveyed from the County of Humboldt for this project. The proposed project includes the placement of security lighting at the new water tanks site.

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

a) *Have a substantial adverse effect on a scenic vista?* No Impact

Scenic vistas are defined as expansive views of highly valued landscapes from publicly accessible viewpoints. Scenic vistas include views of natural features such as topography, watercourses, outcrops, and natural vegetation, as well as man-made scenic structures. As noted in the Setting, there are no designated scenic vistas in the Loleta area. Therefore, the proposed project would result in no impact on this resource category.

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?* No Impact

California's Scenic Highway Program was created by the State Legislature in 1963. According to the California Scenic Highway Mapping System, there are no designated state scenic highways in Humboldt County. US Highways 101 and 299 are listed as "Eligible State Scenic Highways - Not Officially Designated" (Caltrans, 2021). Furthermore, the project site does not contain any scenic resources such as landmark trees, rock outcroppings, or historic buildings that would be impacted by the project.

For the reasons explained above, the proposed project will not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway. Therefore, the proposed project would result in no impact on this resource category.

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 existing visual quality of the project site and surrounding area is characteristic of non-urbanized agricultural (grazing) and rural residential areas. There are no public views of the existing tank site or the areas where aboveground pipe is to be removed by hand. The proposed new water main alignment along Loleta Drive is visible from Loleta Drive. The proposed new tanks site is visible from Loleta Drive although it is partially screened by trees and shrubs. Vegetation at the proposed new tank site along Loleta Drive consists mostly of early seral woody vegetation reflecting past disturbance of the site, likely during the development of US Highway 101 and Loleta Drive and is transitioning to conifer cover. Several mature Monterey pines also exist along that parcel's Loleta Drive frontage. Removal of trees, shrubs, and saplings, including several mature Monterey pines, will occur during construction of the new water tanks site, which will involve clearing and development of most of the approximately 0.61-acre parcel. The project proposes to remove an existing water storage tank (approximately 44 feet in diameter and 20 feet in height), construct two new replacement tanks (each approximately 40 feet in diameter and 25-30 feet in height), construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe using hand tools. These activities are consistent with the Essential Services civic use-type that is a conditionally permitted use in the Agricultural Exclusive (AE) zoning. Following construction, the only changes in visual character due to the project will be the removal of trees and vegetation at the new tanks site and the construction of the two new water storage tanks and associated appurtenances which will be visible from Loleta Drive. Due to the existing visual character of the surrounding land uses and public views, the proposed project will not substantially degrade the existing visual character or quality of public views of the site and its surroundings. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?* Less-Than-Significant with Mitigation Incorporated

Light pollution occurs when nighttime views are diminished by an over-abundance of ambient light. Proper light design and orientation, and landscaping are commonly used to reduce light pollution generated from lighting by blocking the distribution of light toward unintended areas.

As noted in the Setting, there is no existing outdoor lighting at the site. The proposed project includes the placement of security lighting at the new water tanks site. The two proposed new tanks will either be bolted glass-fused-to-steel or welded epoxy-coated steel water storage tanks. The project does not propose building materials that would result in substantial glare. To prevent a potentially significant impact (new source of substantial light which could adversely affect nighttime views in the area), **Mitigation Measure AES-1** will be implemented. **Mitigation Measure AES-1** requires that all new outdoor lighting fixtures shall comply with the International Dark-Sky Association's (IDA) requirements for reducing waste of ambient light ("dark sky compliant"). This includes, but is not limited to, requirements for acceptable fixture types and maximum color temperature. Compliance with IDA recommendations for the proposed security lighting will significantly reduce lighting spillover on adjacent properties and natural areas (for example, the ravine to the south of the new tanks parcel). The IDA recommendations can be found on their website at the following address: https://www.darksky.org/our-work/lighting/lighting-for-citizens/lighting-basics/.

With the adoption of **Mitigation Measure AES-1**, the project will not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Therefore, the proposed project would result in a less-than-significant impact with mitigation incorporated.

Mitigation Measures: In order for the proposed project to result in a less-than-significant impact on *Aesthetics*, the following mitigation measure shall be implemented:

Mitigation Measure AES-1 (**International Dark-Sky Association Compliance):** All new outdoor lighting fixtures shall comply with the International Dark-Sky Association's (IDA) requirements for reducing waste of ambient light (that is, shall be "dark sky compliant"). This includes, but is not limited to, requirements for acceptable fixture types and maximum color temperature. The IDA recommendations can be found on their website at the following address: https://www.darksky.org/our-work/lighting/lighting-for-citizens/lighting-basics/.

II. AGRICULTURE AND FORESTRY RESOURCES: *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural, Land Evaluation and Site Assessment Mode (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. 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 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?			**X**	
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?			**X**	
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 PRC section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				**X**
d) Result in the loss of forest land or conversion of forest land to non-forest use?				**X**
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?				**X**

Setting: The project, located in the unincorporated community of Loleta, proposes to remove an existing water storage tank, construct two new replacement tanks, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe. The project site is located adjacent to US Highway 101 and Loleta Drive. The project area is zoned Agriculture Exclusive, 60-acre minimum lot size, with Transitional Agricultural Lands combining zone (AE-60/T). Land use in the vicinity is characteristic of agricultural (grazing) and rural residential areas. The total project footprint is approximately 1.8 acres in size. Existing development on the project site is limited to the existing water storage tank and appurtenances, the associated unpaved access road, and Loleta Drive. Vegetation composition varies across the project area, but is representative of coastal agricultural lands, disturbed, early successional woody shrub-dominated areas, and coastal drainageways and ravines.

The Farmland Mapping and Monitoring Program (FMMP) of the California Department of Conservation (DOC) has not yet mapped farmland in Humboldt County (DOC, 2021). The character and condition of the project site is not suitable for agricultural or timber production. Vegetation at the existing tank site consists of mixed herbaceous vegetation and red alder forest. Vegetation at the proposed new tank site and along Loleta Drive consists of early seral woody vegetation reflecting past disturbance of the site, likely during the development of US Highway 101 and Loleta Drive, and is transitioning to conifer cover. The site is not subject to a Williamson Act or Timberland Production contract. According to the Natural Resource Conservation Service (NRCS) Web Soil Survey, the project site contains Hookton-Tablebluff complex, 2 to 9 percent slopes (Farmland of Statewide Importance; new tank and new water main locations), and Tablebluff-Cannonball-Lepoil complex, 15 to 30 percent slopes (Not Prime Farmland; existing tank location) soils (NRCS, 2021). However, the new watermain alignment does not conflict with the Farmland of Statewide Importance designation because it is within the County right-of-way associated with Loleta Drive. The new tanks location (APN pending) does not conflict with the Farmland of Statewide Importance designation due to its small size (0.61 acres) and because it was within the County right-of-way associated with Loleta Drive until it was recently conveyed from the County of Humboldt specifically for this project. None of the areas to be impacted by the project are in agricultural use or have agricultural use potential.

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

a) *Convert Prime Farmland, Unique Farmland, or 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?* Less-Than-Significant Impact

Appendix G to the CEQA Guidelines suggests a finding of significance if a project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps for the FMMP by the DOC, to non-agricultural uses. The

FMMP of the DOC has not yet mapped farmland in Humboldt County (DOC, 2021). The areas to be impacted by development of the new tanks site and the new water main along Loleta Drive are mapped by NRCS as Farmland of Statewide Importance. However, the new watermain alignment does not conflict with the Farmland of Statewide Importance designation because it is within the County right-of-way associated with Loleta Drive. The new tanks location (APN pending) does not conflict with the Farmland of Statewide Importance designation due to its small size (0.61 acres) and because it was within the County right-of-way associated with Loleta Drive until it was recently conveyed from the County of Humboldt specifically for this project. None of the areas to be impacted by the project are in agricultural use or have agricultural use potential.

For the reasons explained above, the proposed project will not convert Prime Farmland, Unique Farmland, or 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. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

b) *Conflict with existing zoning for agricultural use, or a Williamson Act Contract?* Less-Than-Significant Impact

The parcels containing the project site are zoned Agriculture Exclusive, 60-acre minimum lot size, with Transitional Agricultural Lands combining zone (AE-60/T). The proposed project is consistent with the Essential Services civic use type that is a conditionally permitted use in the Agricultural Exclusive (AE) zoning. None of the parcels are subject to Williamson Act Contracts.

For the reasons explained above, the proposed project will not conflict with existing zoning for agricultural use or a Williamson Act Contract. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

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 PRC section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?* No Impact

The project site is not zoned forest land or timberland and is not under a current Timberland Production contract. Land use in the project vicinity is characteristic of agricultural (grazing) and rural residential areas. As such, the proposed project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. Therefore, the proposed project would result in no impact on this resource category.

d) *Result in the loss of forest land or conversion of forest land to non-forest use?* No Impact

Vegetation composition varies across the project area, but is representative of coastal agricultural lands, disturbed, early successional woody shrub-dominated areas, and coastal drainageways and ravines. The condition of the site and immediate surroundings (for example, agricultural [grazing] and rural residential areas) is not typical of forest land and is not suitable for timber production. As such, the development of the project would not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, the proposed project would result in no impact on this resource category.

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

The proposed project will not produce significant growth-inducing or cumulative impacts that will result in the conversion of farmland or forest land. Growth-inducing impacts are generally caused by projects that have a direct or indirect effect on economic growth, population growth, or land development. The project proposes to construct two new water storage tanks to replace the existing tank and to meet current and future water storage needs for the community. The new tanks will comply with current seismic and structural codes and provide LCSD with a more secure source of water storage for the foreseeable future. However, the project will not increase the water service area, water withdrawals, or water entitlements. There are farmlands adjacent to the project; however, there is no reason to believe that upgrading the community's water storage and conveyance infrastructure would result in the conversion of farmland or forest land in the project area to other unrelated uses. Therefore, the proposed project would result in no impact on this resource category.

Mitigation Measures: No mitigation measures are required for the project to result in a less-than-significant impact on *Agricultural and Forestry Resources*.

III. AIR QUALITY: *Where available, the significant criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:*	**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?		X		
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?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?		X		
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

Setting: The project site is located in Humboldt County, which lies within the North Coast Air Basin (NCAB). The NCAB extends for 250 miles from Sonoma County in the south to the Oregon border. The climate of NCAB is influenced by two major topographic units: the Klamath Mountains and the Coast Range provinces. The climate is moderate with the predominant weather factor being moist air masses from the ocean. Average annual rainfall in the project area is approximately 50 to 60 inches with the majority falling between October and April (SHN, 2020a).

The NCAB enjoys some of the best air quality in State, which is aided by winds off the ocean. Predominant wind direction is typically from the northwest during summer months and from the southwest during storm events occurring during winter months. Wind helps disperse air pollution; whereas calm periods can allow it to build up to unhealthy levels. Temperature inversions, which occur when a layer of warm air traps cool air near the surface creating a lid, inhibit the vertical dispersion of pollutant emissions. Inversions occur most commonly in the Mad River Valley area during winter months and trap emissions of all types near the surface. Dispersion usually occurs when a frontal system, sometimes bringing strong winds, passes over the area disturbing the temperature inversion, which allows pollutants to disperse vertically and horizontally.

Humboldt County is listed as in "attainment" or "unclassified" for all the federal and state ambient air quality standards except for the state 24-hour particulate matter (PM_{10}) standard, which relates to concentrations of suspended airborne particles that are 10 micrometers or less in size (NCUAQMD, 2021).

Sensitive Receptors

Sensitive receptors (for example, children, senior citizens, and acutely or chronically ill people) are more susceptible to the effect of air pollution than the general population. Land uses that are considered sensitive receptors typically include residences, schools, parks, childcare centers, hospitals, and retirement homes. The nearest known potential sensitive receptor to the proposed project is the Thomas Carr Park – Firefighters Pavilion (>200 feet). Other sensitive receptors in the vicinity of the proposed project include, but are not limited to, residence to the south of Loleta Drive (>550 feet), Loleta Grammar School (>600 feet), residences to the north of Loleta Drive (>800 feet), and residences to the southwest of the existing tank (>1,000 feet; Figure 2).

Odors

Odors generally are regarded as a nuisance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (for example, anger or anxiety) to physiological (for example, circulatory and respiratory effects, nausea, vomiting, or headache). The ability to detect odors varies considerably among the population and the odor interpretation is subjective. Some individuals have the ability to smell small 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. An odor that is offensive to one person (for example, from a fast-food restaurant) may be perfectly acceptable to another. Unfamiliar odors are detected more easily than familiar odors and are more likely to be offensive. Odors present in the project area are generated from grazing operations in the Eel River Valley and vehicular emissions from traffic on Loleta Drive and US Highway 101.

Regulatory Setting:

Criteria Air Pollutants

The Clean Air Act (CAA) requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for six common air pollutants (also known as "criteria air pollutants"; EPA, 2018). Concentrations of criteria air pollutants are used as indicators of ambient air quality conditions. The EPA has established a maximum concentration (air quality standard) for each criteria air pollutant, above which adverse effects on human health may occur. When an area does not meet the air quality standard for one of the criteria air pollutants, it may be subject to the formal rule-making process, which designates it as nonattainment.

The CAA further classifies ozone, carbon monoxide (CO), and particulate matter (PM_{10} and $PM_{2.5}$) nonattainment areas based on the magnitude of criteria air pollutant exceedances in a given area (42 U.S. Code Section 7401 et seq.). Nonattainment classifications may be used to specify what air pollution reduction measures an area must adopt and when the area must reach attainment. The technical details underlying these classifications are described in the Code of Federal Regulations (CFR) "Protection of Environment" (40 CFR Section 81).

The EPA has established primary and secondary NAAQS for criteria air pollutants. The primary standards are concentrations developed by the EPA through review of extensive scientific research and are intended to be protective against human health impacts. The secondary standards were developed to protect elements of human welfare vulnerable to degraded air quality such as visibility of air, agriculture, buildings, infrastructure, and livestock.

Adverse health impacts associated with exposure to air pollution have varying degrees of severity depending on the receptor (such as, each persons' sensitivity) exposed. For example, infants, children, the elderly, and those with preexisting cardiovascular and respiratory disease (for example, asthma) experience more severe symptoms in response to acute and chronic exposure. However, the EPA has concluded that the current NAAQS protect the public health, including the at-risk populations, with an adequate margin of safety.

In 1959, California enacted legislation requiring the state Department of Public Health to establish air quality standards. California law continues to mandate California ambient air quality standards (CAAQS), which are often more stringent than the NAAQS (CARB, 2021a). The California Air Resources Board (CARB) is responsible for setting standards and adopting regulations to achieve the maximum degree of emissions reduction possible from vehicular and other mobile sources at the state level, as well as for state implementation of the CAA.

Air pollutants come from various sources, both anthropogenic (such as, vehicle exhaust, stationary sources, and operation of mobile equipment in construction and industry) and biogenic (such as, vegetation, animals, and even the earth itself). Exhaust emissions from vehicles vary according to driving speed, type of engine (for example, gasoline or diesel), length of use, and horsepower. Emissions from stationary sources (for example, fossil fuel burning power plants and food processing plants) are estimated by the amount of natural gas and electricity consumption. Construction and industrial equipment generate pollutant emissions that are highly variable by type and technology of specific equipment. Vegetation emits volatile organic compounds (VOCs) which are ozone precursors.

A brief description of each criteria air pollutant (such as, source types, health effects, and future trends) is provided below.

- Ozone:
  Ozone (O_3) is a photochemical oxidant - a substance whose oxygen combines chemically with another substance in the presence of sunlight. In the lower atmosphere, ozone is the primary component of smog. Ozone is not emitted directly into the air but is formed through complex chemical reactions between certain emissions, known as "precursor emissions," in the presence of sunlight. The precursor emissions for ozone are reactive organic gases (ROG) and nitrogen oxides (NO_X). ROGs are volatile organic compounds that are photochemically reactive. ROG emissions result primarily from incomplete combustion and the evaporation of chemical solvents and fuels. Common sources of ROG emissions include solvents, pesticides, the burning of fuels, and organic wastes. NO_X is a group of gaseous compounds of nitrogen and oxygen that result from the combustion of fuels. Common sources of NO_X emissions include emissions from burning of fuel in cars, trucks, buses, power plants, and off-road equipment (EPA, 2018).

  Ozone located in the upper atmosphere (stratosphere) shields the earth from harmful ultraviolet radiation emitted by the sun. However, ozone located in the lower atmosphere (troposphere) is a major health and environmental concern. As described below, breathing ozone can trigger a variety of health problems, particularly for children, elderly, and people of all ages who have lung disease (such as, asthma). Ground level ozone can also have harmful effects on sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. Ozone can especially cause damage during the growing season (EPA, 2018).

The adverse health effects associated with exposure to ozone pertain primarily to the respiratory system. Scientific evidence indicates that ambient levels of ozone affect not only sensitive receptors, such as people with asthma and children, but healthy adults as well. Exposure to ambient levels of ozone ranging from 0.10 to 0.40 parts per million (ppm) for one or two hours has been found to substantially alter lung function by increasing respiratory rate and pulmonary resistance, decreasing tidal volume, and impairing respiratory mechanics. Ambient levels of ozone above 0.12 ppm are linked to symptomatic responses that include such symptoms as throat dryness, chest tightness, headache, and nausea. In addition to these adverse health effects, ozone exposure can cause an increase in the permeability of respiratory epithelia (such as, the thin tissue forming the outer layer of the body's respiratory system); such increased permeability leads to an increase in the respiratory system's responsiveness to challenges and the inhibition of the immune system's ability to defend against infection (Godish, 2004). These effects may lead to increased school absences, medication use, visits to doctors and emergency rooms, and hospital admissions.

Meteorology and terrain play a major role in ozone formation in the troposphere (such as, at ground level). Generally, low wind speeds or stagnant air coupled with warm temperatures and clear skies provide the optimum conditions for formation; therefore, summer generally is the peak ozone season. Peak ozone concentrations often occur far downwind from the precursor emissions due to the time it takes for reactions to complete. Therefore, ozone is a regional pollutant that often affects large areas. In general, ozone concentrations over or near urban and rural areas reflect an interplay of emissions of ozone precursors, transport, meteorology, and atmospheric chemistry.

- Carbon Monoxide:
  Carbon monoxide (CO) is a colorless, odorless, and poisonous gas, produced by incomplete burning of carbon in fuels, primarily from internal-combustion engines used for transportation. In fact, 77 percent of nationwide CO emissions are from transportation. The other 23 percent of emissions are from wood-burning stoves, incinerators, and industrial sources.

  CO enters the bloodstream through the lungs by combining with hemoglobin, a component of red blood cells, which normally carries oxygen to the red blood cells. CO combines with hemoglobin much more readily than oxygen does, resulting in a drastic reduction in the amount of oxygen available to the cells. Adverse health effects associated with exposure to CO concentrations include symptoms such as dizziness, headaches, and fatigue. CO exposure is especially harmful to individuals who suffer from cardiovascular and respiratory diseases (EPA, 2018).

  The highest CO concentrations generally are associated with the cold, stagnant weather conditions that occur in winter. In contrast to ozone, which tends to be a regional pollutant, CO tends to cause localized problems.

- Nitrogen Dioxide**:**
  Nitrogen Dioxide (NO_2) is a brownish, highly reactive gas that is present in all urban environments. The major human-made sources of NO_2 are combustion devices, such as boilers, gas turbines, and reciprocating internal-combustion engines (mobile as well as stationary). Combustion devices emit primarily nitric oxide (NO), which reacts with oxygen in the atmosphere to form NO_2 (EPA, 2018). The combined emissions of NO and NO_2 are referred to as NO_X, which is reported as equivalent NO_2. Since NO_2 is formed and depleted by reactions associated with photochemical smog (ozone), the NO_2 concentration in a particular geographical area may not be representative of the local NO_X emission sources.

  Inhalation is the most common form of exposure to NO_2, with the principal site of toxicity being the lower respiratory tract. The severity of adverse health effects depends primarily on the concentration of NO_2 inhaled rather than the duration of exposure. An individual may experience a variety of acute symptoms, including coughing, difficulty with breathing, vomiting, headache, and eye irritation, during or shortly after exposure. After approximately 4 to 12 hours of exposure, an individual may experience chemical pneumonitis or pulmonary edema, with breathing abnormalities, cough, cyanosis, chest pain, and rapid heartbeat. Severe, symptomatic NO_2 intoxication after acute exposure has been linked on occasion with prolonged respiratory impairment, including symptoms such as chronic bronchitis and decreased lung function.

- Sulfur Dioxide**:** Sulfur dioxide (SO_2) is produced by stationary sources like coal and oil combustion, steel mills, refineries, and pulp and paper mills. The major adverse health effects associated with SO_2 exposure relate to the upper respiratory tract. SO_2 is a respiratory irritant, with constriction of the bronchioles occurring with inhalation of SO_2 at 5 ppm or more. On contact with the moist mucous membranes, SO_2 produces sulfurous acid, which is a direct irritant. Concentration rather than duration of the exposure is the most important determinant of respiratory effects. Exposure to high SO_2 concentrations may result in edema of the lungs or glottis and respiratory paralysis (EPA, 2018).

- Particulate Matter**:**
  Particulate matter (PM) is a mixture of solid particles and liquid droplets found in air. PM that is small enough to be inhaled has a diameter of 10 microns or less is referred to as PM_{10}. PM_{10} consists of particulate matter emitted directly into the air, such as

fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires, natural windblown dust, and can be formed in the atmosphere by condensation or transformation of SO_2 and ROG (EPA, 2018). $PM_{2.5}$ includes a subgroup of finer particles that have a diameter of 2.5 microns or less.

Generally, adverse health effects associated with PM_{10} may result from both short-term and long-term exposure to elevated concentrations, and may include breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, alterations to the immune system, carcinogenesis, and premature death (EPA, 2018). The adverse health effects associated with PM_{10} depend on the specific composition of the particulate matter. For example, health effects may be associated with adsorption of metals, polycyclic aromatic hydrocarbons, and other toxic substances onto fine particulate matter (referred to as the "piggybacking effect"), or with fine dust particles of silica or asbestos. $PM_{2.5}$ poses an increased health risk when compared to PM_{10} because the particles can deposit deep in the lungs and are more likely to contain substances that are particularly harmful to human health.

- Lead**:**
  Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions historically have been mobile and industrial sources. Due to the phase-out of leaded gasoline, as discussed below, metal processing currently is the primary source of lead emissions. The highest levels of lead in the atmosphere generally are found near lead smelters. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers.

  Twenty years ago, mobile sources (for example, motor vehicles using leaded fuel) were the main contributor to ambient lead concentrations in the air. In the early 1970s, the EPA established national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. EPA banned the use of leaded gasoline in highway vehicles in December 1995 (EPA, 2018).

  Due to EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Transportation sources, primarily airplanes, now contribute to only 13 percent of lead emissions. A recent National Health and Nutrition Examination Survey reported a 78 percent decrease in the levels of lead in people's blood between 1976 and 1991. This dramatic decline can be attributed to the move from leaded to unleaded gasoline (EPA, 2018).

  Similarly, lead emissions and ambient lead concentrations have decreased dramatically in California over the past 25 years. The phase-out of lead in gasoline began during the 1970s, and subsequent CARB regulations have eliminated virtually all lead from gasoline now sold in California. All areas of the state currently are designated as attainment for state lead standard (EPA does not designate areas for the national lead standard). Although the ambient lead standards are no longer violated, lead emissions from stationary sources still pose "hot spot" problems in some areas. Therefore, CARB has identified lead as a toxic air contaminant (TAC).

Toxic Air Contaminants (TACs)

TACs, referred to at the federal level as hazardous air pollutants (HAPs), are defined as air pollutants that may cause or contribute to an increase in mortality or serious illness or pose a hazard to human health. TACs usually are present in small quantities in the ambient air. However, in some cases, their high toxicity or health risk may pose a threat to public health even at low concentrations. Of the TACs for which data are available in California, diesel PM, benzene, 1,3- butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, paradichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene pose the greatest risks. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, and genetic damage; or short-term acute effects such as eye watering, respiratory irritation, rhinitis, throat pain, and headaches.

Diesel Particulate Matter (diesel PM):

According to the CARB, the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines (diesel PM; CARB, 2013). Diesel PM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present.

Most major sources of diesel emissions, such as ships, trains, and trucks operate in and around ports, rail yards, and heavily traveled roadways. These areas are often located near highly populated areas. Because of this, elevated diesel PM levels are mainly an urban problem, with large numbers of people exposed to higher diesel PM concentrations, resulting in greater health consequences compared

to rural areas. A large fraction of personal exposure to diesel PM occurs during travel on roadways. Although Californians spend a relatively small proportion of their time in enclosed vehicles (about 7% for adults and teenagers, and 4% for children under 12), 30 to 55 percent of total daily diesel PM exposure typically occurs during the time people spend in motor vehicles (CARB, 2021b).

Statewide, diesel PM emissions account for approximately two percent of the annual average for on-road emissions, while other diesel PM emissions from offroad mobile sources (for example, construction and agricultural equipment) account for an additional three percent (CARB, 2013). Statewide diesel PM emissions decreased approximately 37 percent from year 2000 to 2010, primarily from implementation of more stringent federal emission standards and cleaner burning diesel fuel (CARB, 2013). CARB anticipates that diesel PM emissions from onroad and other mobile sources (for example, construction and agricultural equipment) will continue to decrease into 2035. This decrease would also be attributed to more stringent emissions standards and the introduction of cleaner burning diesel fuel.

Naturally occurring asbestos:
Naturally occurring asbestos, which was identified as a TAC in 1986 by CARB, is located in the existing geology in many parts of California. According to the United States Geological Survey (USGS) and the Department of Conservation, Division of Mines and Geology, the geology of California has been extensively investigated. The USGS has published mapping identifying areas that are known to contain naturally occurring asbestos (NOA; USGS, 2011). The mapping indicates that there are several locations within Humboldt County that are known to contain NOA. The project site is located in the Mad River Valley and is not identified as being in close proximity to areas that contain NOA. The closest areas containing NOA are located in inland areas of the County over 10 miles to the east of the project site (USGS, 2011).

California Air Resources Board
In California, the CARB, which is part of the California Environmental Protection Agency, is responsible for meeting the State requirements of the federal CAA, administering the California Clean Air Act, and establishing the CAAQS. The California Clean Air Act, as amended in 1992, requires all 35 air districts in the state to endeavor to achieve and maintain the CAAQS. The CARB regulates mobile air pollution sources, such as motor vehicles. It is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. The CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level.

North Coast Unified Air Quality Management District (NCUAQMD)
The North Coast Unified Air Quality Management District (NCUAQMD), one of 35 air districts in California, has jurisdiction over Humboldt, Del Norte, and Trinity counties. The NCUAQMD's primary responsibility is for controlling air pollution from stationary sources and is committed to achieving and maintaining healthful air quality throughout the tri-county jurisdiction. The NCUAQMD has permit authority over most types of stationary emission sources and can require stationary sources to obtain permits, impose emission limits, set fuel or material specifications, or establish operational limits to reduce air emissions. The NCUAQMD monitors air quality, enforces local, State and federal air quality regulations for counties within its jurisdiction, inventories and assesses the health risks of TACs, and adopts rules that limit pollution.

Particulate Matter (PM_{10}) Attainment Plan:
As noted previously, the NCUAQMD is listed as in "attainment" or "unclassified" for all the federal and State ambient air quality standards except for the state 24-hour particulate matter (PM_{10}) standard. In 1995, the Air District provided a study to identify the contributors of PM_{10} which is summarized in the Particulate Matter PM_{10} Attainment Plan Draft Report (NCUAQMD, 1995). This report includes a description of the planning area (North Coast Unified Air District), an emissions inventory, general attainment goals, and a listing of cost-effective control strategies. The NCUAQMD's Attainment Plan established goals to reduce PM_{10} emissions and eliminate the number of days in which standards are exceeded. The Attainment Plan includes three areas of recommended control strategies to meet these goals: transportation, land use, and burning.

Significance Thresholds
As noted above, the project is located in the NCAB and is within the NCUAQMD. In determining whether a project has significant air quality impacts on the environment, CEQA practitioners typically apply the local air district's thresholds of significance to projects in the environmental review process. Humboldt County is listed as in "attainment" or "unclassified" for all the federal and state ambient air quality standards except for the state 24-hour particulate matter (PM_{10}) standard, and the NCUAQMD has not adopted CEQA significance thresholds for project-level review for land use projects.

For the purposes of assessing operational air quality impacts in CEQA documents, NCUAQMD Rule 110 – New Source Review (NSR) And Prevention of Significant Deterioration (PSD), which contains thresholds for operational emissions from new stationary sources, is commonly used as a significance threshold for project-level review for land use projects. Although these stationary source emissions

thresholds do not directly apply to land use projects, they provide a reference point for levels of emissions that would trigger NCUAQMD requirements for best available control technology and/or mitigation off-sets. Per Rule 110, criteria air pollutants from the operation of stationary sources are considered significant if they exceed the following thresholds listed in Table 1 (NCUAQMD, 2015).

Table 1: NCUAQMD Significance Thresholds[a]

Pollutant	Significance Thresholds	
	Daily (pounds per day)	Annual (tons per year)
Reactive Organic Compounds	50	40
Nitrogen Oxides	50	40
Carbon Monoxide	500	100
Sulfur Oxides	80	40
Particulate Matter (PM10)	80	15
Particulate Matter (PM2.5)	50	10

[a] Source: NCUAMD, 2015

In using NCUAQMD Rule 110 as a threshold in this document, the Lead Agency is exercising its discretion to formulate CEQA significance criteria based in part on the NCUAQMD rules, as they reflect the best available expert judgment regarding what constitutes significant levels of air pollution within the NCAB and Humboldt County.

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

a) *Conflict with or obstruct implementation of the applicable air quality plan?* Less-Than-Significant with Mitigation Incorporated

The project is located in Humboldt County, which is located in the NCAB and is subject to the jurisdiction of the NCUAQMD. The NCUAQMD's primary responsibility is to achieve and maintain federal and State air quality standards, subject to the powers and duties of the CARB. As noted in the Setting, Humboldt County is listed as being in "attainment" or "unclassified" for all the federal and state ambient air quality standards except for the state 24-hour particulate matter (PM_{10}) standard in Humboldt County only (NCUAQMD, 2021).

As discussed in the Setting, the NCUAQMD prepared a Draft Particulate Matter (PM_{10}) Attainment Plan in May 1995 (NCUAQMD, 1995). The Attainment Plan includes a description of the planning area, an emissions inventory, general attainment goals, and a listing of cost-effective control strategies. The Attainment Plan established goals to reduce PM_{10} emissions and eliminate the number of days in which standards are exceeded. The Attainment Plan includes three areas of recommended control strategies to meet these goals: transportation, land use, and burning. A potentially significant impact to air quality would occur if the project would conflict with or obstruct the implementation of the NCUAQMD PM_{10} Attainment Plan.

Construction

Construction of the proposed project will include ground-disturbing activities (for example, site preparation, grading, trenching, etc.) that have the potential to temporarily contribute to PM_{10} concentrations, primarily from fugitive dust generation and vehicle/equipment exhaust. Construction activities are required to meet NCUAQMD Rule 104 - Prohibitions, which bans nuisance dust generation and is enforceable by the NCUAQMD. Rule 104 states that "*reasonable precautions shall be taken to prevent particulate matter from becoming airborne*."

The ground-disturbing activities associated with project construction may result in fugitive dust emissions, which, if not handled correctly, could violate Rule 104. The impact to PM_{10} from project construction activities would therefore result in a significant impact.

Implementation of **Mitigation Measure AQ-1** enhances compliance with Rule 104 by incorporating qualitative best management practices during construction. With implementation of **Mitigation Measure AQ-1**, project construction would comply with applicable rules, and would not conflict with or obstruct implementation of the applicable air quality plan.

Operation

The NCUAQMD Particulate Matter (PM_{10}) Attainment Plan includes three areas of recommended control strategies to achieve attainment status: transportation, land use, and burning. The project aligns with control measures identified in the PM_{10} Attainment Plan appropriate to this type of project, such as:

Transportation:

As discussed in the Attainment Plan, stop-and-go traffic accounts for a large portion of vehicular related PM_{10} emissions. This is especially true with heavy duty diesel-fueled vehicles (NCUAQMD, 1995). The project site is located nearby to highway access and is within approximately 500 feet of US Highway 101. The close proximity to the highway and the design of the site minimizes stop-and-go traffic for haul trucks and reduces potential vehicular PM_{10} emissions.

Land Use:

The project is located in the unincorporated community of Loleta in close proximity to the town center, highway access, and the previous water storage tank site. Therefore, the project will not increase vehicle miles traveled or associated vehicular emissions for LCSD's chief plant operator who operates the drinking water system.

Burning:

The project does not propose the burning of materials as a part of operations nor the use of structural heating sources such as woodstoves or fireplaces, which will minimize associated PM_{10} emissions generated during long-term operation of the project.

Fugitive Dust:

In addition to the Attainment Plan control measures discussed above, the potential for PM_{10} emissions in the form of fugitive dust is also considered regarding operation of the proposed project. Operation of the project would contribute minimal PM_{10} because operation and maintenance would not typically involve ground-disturbing activities nor increase vehicle/equipment exhaust over the baseline condition. With the incorporation of **Mitigation Measure AQ-1**, the proposed project's operation will not conflict with or obstruct implementation of the PM_{10} Attainment Plan.

With the implementation of **Mitigation Measure AQ-1** and for the reasons explained above, the proposed project will not conflict with or obstruct implementation of the applicable air quality plan. Therefore, the proposed project would result in a less-than-significant impact with mitigation incorporated on this resource category.

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

As discussed in the Setting, the project is located in Humboldt County, which is located in the NCAB and is subject to the jurisdiction of the NCUAQMD. The NCUAQMD's primary responsibility is to achieve and maintain federal and State air quality standards, subject to the powers and duties of the CARB. Humboldt County is listed as being in "attainment" or "unclassified" for all the federal and state ambient air quality standards except for the state 24-hour particulate matter (PM_{10}) standard (NCUAQMD, 2021).

The proposed project has the potential to generate PM_{10} emissions during both construction and operation. During construction activities, PM_{10} emissions would primarily be generated from fugitive dust from ground-disturbing activities and vehicle/equipment exhaust. During operation of the proposed project, minimal PM_{10} emissions would be generated, primarily from activities with the potential to generate fugitive dust (for example, site maintenance involving ground-disturbing activity) and vehicle/equipment exhaust.

Both construction and operational emissions for the proposed project were estimated using the California Emissions Estimator Model (CalEEMod; CAPCOA, 2020), which is a statewide land use emissions computer model designed to provide a uniform platform for government agencies to quantify potential criteria pollutant emissions associated with both construction and operation of a variety of land use projects. The model applies inherent default values for various land uses, including trip generation rates based on the Institute of Transportation Engineers (ITE) Manual, vehicle mix, trip length, average speed, etc. However, where project-specific data is available, such data should be input into the model. Project-specific information input into the model was derived from project description at the beginning of this document, from the Preliminary Engineering Report (SHN, 2021), and from supplemental information provided by the project engineer related to the size of proposed structures and equipment, area of grading and site preparation, equipment that will be used for construction, number of days for each construction activity, the quantity of materials that will be imported and exported, and information on the proposed standby generator. Otherwise, where project-specific information was not available, the model default values were used for estimating emissions from the project. Due

to the PM_{10} attainment status for Humboldt County, PM_{10} is the primary focus of the emissions estimates and analysis in this section. For information purposes only, emissions estimates are also provided for other common air pollutants including ROG, CO, NOx, SOx, and $PM_{2.5}$.

Tables 2 and 3 below provide the maximum daily construction and operations emissions estimates (unmitigated) from CalEEMod as compared to the significance threshold for PM_{10} in NCUAQMD Rule 110. As discussed in the Setting, although not directly applicable to land use projects, the Rule 110 significance thresholds provide a reference point for levels of emissions that would trigger requirements for best available control technology and/or mitigation off-sets. As such, these thresholds reflect the best available expert judgment regarding what constitutes significant levels of air pollution within the NCAB and Humboldt County. For the purposes of this analysis, PM_{10} emissions from construction and operation of the proposed project would be cumulatively considerable if they exceed the Rule 110 significance threshold (NCUAQMD, 2015).

Table 2: Maximum Daily Construction Emissions (Unmitigated)

Criteria Pollutants	Emissions (pounds per day)					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions[a]	4.7	21.4	11.5	0.05	6.5	3.4
Significance Threshold[b]	50	50	500	80	80	50
Exceeds Significance Threshold?	No	No	No	No	No	No

[a] Source: CAPCOA, 2020
[b] Source: NCUAQMD, 2015

Table 3: Maximum Daily Operational Emissions (Unmitigated)

Criteria Pollutants	Emissions (pounds per day)					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions[a]	0.18	0.15	0.70	<0.1	0.14	<0.1
Significance Threshold[b]	50	50	500	80	80	50
Exceeds Significance Threshold?	No	No	No	No	No	No

[a] Source: CAPCOA, 2020
[b] Source: NCUAQMD, 2015

As indicated in Tables 2 and 3, the maximum daily construction and operational emissions from the proposed project would be below the NCUAQMD Rule 110 significance threshold for PM_{10}. Additionally, the construction and operation of the proposed project would not exceed the significance thresholds for ROG, CO, NOx, SOx, and $PM_{2.5}$. As such, the proposed project is not anticipated to result in a cumulatively considerable net increase of PM_{10}.

Therefore, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the NCUAQMD is non-attainment under an applicable federal or State ambient air quality standard.

c) *Expose sensitive receptors to substantial pollutant concentrations?* Less-Than-Significant with Mitigation Incorporated

This discussion addresses whether construction and operation of the proposed project would expose sensitive receptors to substantial concentrations of criteria air pollutants or toxic air contaminants (TACs) including asbestos, diesel particulate matter (diesel PM) from construction equipment and vehicle traffic, and fugitive dust from construction activity.

High concentrations of criteria air pollutants and TACs can result in adverse health effects to humans. Some population groups are considered more sensitive to air pollution than others; in particular, children, elderly, and acutely ill and chronically ill persons, especially those with cardio-respiratory diseases, such as asthma and bronchitis. Sensitive land uses are facilities that generally house more sensitive people (for example, schools, hospitals, nursing homes, residences, etc.). The nearest known potential

sensitive receptor to the proposed project is the Thomas Carr Park – Firefighters Pavilion (>200 feet). Other sensitive receptors in the vicinity of the proposed project include, but are not limited to, residence to the south of Loleta Drive (>550 feet), Loleta Grammar School (>600 feet), residences to the north of Loleta Drive (>800 feet), and residences to the southwest of the existing tank (>1,000 feet; Figure 2).

The NCUAQMD has not adopted guidance for health risk assessments or health risk significance thresholds. However, on the NCUAQMD's website, the District recommends the use of the California Air Pollution Control Officers Association (CAPCOA) guidance document entitled "Health Risk Assessment for Proposed Land Use Projects" to assist lead agencies with the requirements of CEQA when projects may involve exposure to toxic air contaminants. The document primarily focuses on addressing long-term public health risk impacts from and to proposed land use projects. The document does not provide guidance on how risk assessments for construction projects should be addressed in CEQA (CAPCOA, 2009).

Air quality issues occur when sources of air pollutants and sensitive receptors are located near one another. As discussed in the CAPCOA guidance document (2009, page 4), there are basically two types of land use projects that have the potential to cause long-term public health risk impacts:

- Land use projects with toxic emissions that impact receptors. Examples of these types of projects include combustion-related power plants, gasoline dispensing facilities, asphalt batch plants, warehouse distribution centers, and quarry operations.
- Land use projects that will place receptors in the vicinity of existing toxic sources. This would occur when residential, commercial, or institutional developments are proposed to be located in the vicinity of existing toxic emission sources such as stationary sources, high traffic roads, freeways, rail yards, and ports.

The following analysis evaluates whether the project would result in construction or operational-related impacts to sensitive receptors.

Construction

Criteria Air Pollutants: The construction activities proposed by the project would result in the emission of criteria air pollutants. As indicated in Table 2, the construction emissions from the proposed project are well below the NCUAQMD stationary source thresholds. These thresholds were developed by the NCUAQMD, and approved by the CARB and EPA, to ensure that stationary sources would not contribute to an exceedance of federal and state ambient air quality standards in the region. As discussed in the Regulatory Setting, the EPA has concluded that the current NAAQS protect the public health, including the at-risk populations, with an adequate margin of safety. Since the construction emissions from the proposed project would not exceed the NCUAQMD thresholds, the project would not expose sensitive receptors to substantial concentrations of criteria air pollutants.

Naturally-Occurring Asbestos: The USGS has published mapping identifying areas that are known to contain NOA (USGS, 2011). The mapping indicates that there are several locations within Humboldt County that are known to contain NOA. The project site is located in the Eel River Valley and is not identified as being in close proximity to areas that contain NOA. The closest areas known to contain NOA are located in inland areas of the County over 10 miles to the east of the project site (USGS, 2011). As such, the project site is not known to contain NOA that could be released during construction activities such as site preparation, grading, and trenching

Asbestos and Lead-Containing Materials: The project proposes to demolish the existing water storage tank at the project site. Asbestos-containing materials and/or lead-based materials may be present within the existing water tank. The demolition of this structure shall comply with federal and state regulations for the removal, handling, and disposal of asbestos-containing and/or lead-based materials. Compliance with existing regulatory requirements will reduce the risks associated with demolishing structure(s) containing these materials to less-than-significant levels.

Diesel PM: The use of diesel-powered equipment during construction activity would result in emissions of diesel PM, which is a known carcinogen. The majority of heavy diesel equipment used during construction activity would occur during site preparation, grading, and trenching of the project sites. Exhaust fumes from construction equipment will be isolated to areas immediately surrounding the sources and will dissipate rapidly. Concentrations of mobile source emissions of diesel PM are typically reduced by 60 percent at a distance of approximately 300 feet (Zhu et al., 2002) and 70 percent at a distance of approximately 500 feet (CARB, 2005). It is estimated that grading activity for the project would occur over an approximately 3-week period. Residents located within the vicinity of the project site would be exposed to construction contaminants only for the duration of construction activity. These brief exposure periods, and the distance to the nearest residences (550 to 1,000 feet), would substantially limit exposure to hazardous emissions.

In addition, any relevant vehicle or equipment use associated with construction of the project will be subject to CARB standards. The CARB In-Use-Off-Road Diesel Vehicle Regulation applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower.

The regulations: 1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; 2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System, DOORS) and labeled; 3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and 4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies, VDECS (such as, exhaust retrofits). The requirements and compliance dates of the Off-Road regulation vary by fleet size, as defined by the regulation.

Fugitive Dust: Fugitive dust has the potential to be generated during construction from activities including site preparation, grading, and trenching. Construction-related dust emissions typically vary from day to day, depending on the level and type of activity, silt content of construction site soil, and weather conditions. Fugitive dust generated from construction activity can result in nuisances and localized health impacts. Considering the type of project and the area that will require site preparation, grading, and trenching, there is a potential for the generation of significant quantities of fugitive dust. To reduce potential impacts from fugitive dust generation during construction activity, **Mitigation Measure AQ-1** has been included for the project, which requires the implementation of fugitive dust control measures.

With the implementation of **Mitigation Measure AQ-1**, the limited duration of construction activities, and the distance of the project site from known sensitive receptors, the proposed project construction will not expose sensitive receptors to substantial concentrations of fugitive dust.

Operation

The project proposes improvement of LCSD's water storage and distribution system. This infrastructure is not generally considered to be a land use that emits substantial quantities of toxic emissions. Any emissions currently being emitted by operation of the existing water system would be considered part of the existing baseline conditions. Since the proposed project would not increase the amount of water treated or used, it would not result in any significant increases in operational emissions.

Also, as indicated in Table 3, the operational emissions from the proposed project are well below the NCUAQMD stationary source thresholds. These thresholds were developed by the NCUAQMD, and approved by the CARB and EPA, to ensure that stationary sources would not contribute to an exceedance of federal and state ambient air quality standards in the region. As discussed in the Regulatory Setting, the EPA has concluded that the current NAAQS protect the public health, including the at-risk populations, with an adequate margin of safety. Since the operational emissions from the proposed project would not exceed the NCUAQMD thresholds, operation of the proposed project would not expose sensitive receptors to substantial pollutant concentrations.

Based on the project location, design, and implementation of **Mitigation Measure AQ-1**, construction and operation of the proposed project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, impacts from the proposed project would be less than significant with mitigation incorporated.

d) *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?* Less-Than-Significant Impact

The construction phase of the proposed project will include the paving of areas along Loleta Drive disturbed by installation of approximately 1,400 feet of new water main, which will consist of the application of hot asphalt. Project construction will also involve the use of a variety of gasoline- or diesel-powered equipment that emits exhaust fumes. Odors from hot asphalt and exhaust fumes may be considered objectionable; however, these odors would be isolated to areas immediately surrounding their sources and would dissipate rapidly. The land uses surrounding the project site are primarily agricultural (grazing) and rural residential, with few residents present in the immediate vicinity. Therefore, a substantial number of people would not be adversely affected by construction of the proposed project. Furthermore, the generation of odors will be temporary and subside once project construction is concluded.

Operation of a water storage and distribution system is not a type of land use that would generally be considered to result in significant emissions, such as those leading to odors, that would affect a substantial number of people. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

Mitigation Measures: In order for the proposed project to result in a less-than-significant impact to *Air Quality*, the following mitigation measures will be implemented:

Mitigation Measure AQ-1 (Fugitive Dust Control Measures): LCSD, at all times during construction, shall comply with Air Quality Regulation 1, Rule 104 (D) to the satisfaction of the NCUAQMD. This would require, but may not be limited to:

- Water all active construction areas regularly to limit dust; control erosion and prevent water runoff containing silt and debris from entering the storm drain system;

- Cover trucks hauling soil, sand, and other loose material;
- Pave, water, or apply non-toxic soil stabilizers on unpaved access roads and parking areas; and
- Sweep paved streets, access roads and parking areas daily if visible material is carried onto adjacent public streets.

IV. **BIOLOGICAL RESOURCES:** *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Have a substantial 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?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local of regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
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?		X		
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?		X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
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?				X

Setting: A Biological Report, including literature review and field surveys, was completed for the project by SHN (SHN, 2020a). This report evaluated the potential for special-status biological resources at the project site, including Environmentally Sensitive Habitat Areas (ESHA) as defined by the Humboldt County General Plan Volume II Eel River Area Plan of the Humboldt County Local Coastal Program (Eel River Area Plan; Humboldt County, 2014) which serves as the basis for land use planning within this portion of the Coastal Zone. Additionally, a Wetland and Other Waters Delineation Report was completed for the project by SHN (SHN, 2020b) which documents existing wetlands and other waters of the United States and State at the project site. The wetland delineation mapped jurisdictional waters as defined by the United States Army Corps of Engineers (USACE) three-parameter methods, as well as the one-parameter wetland definition used for the California Coastal Commission (CCC) and the Eel River Area Plan. The results of these reports are discussed below.

The project, located in the unincorporated community of Loleta, proposes to remove an existing water storage tank, construct two new replacement tanks, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe. The total project footprint is approximately 1.8 acres in size. The project is located entirely within the Coastal Zone, in the "Local" coastal development permit jurisdiction. Loleta is situated at the base of Tompkins Hill, west of Deering Gulch, at the foot of the southern slopes of Table Bluff, a 300-foot-high sandstone ridge forming a natural barrier between the Eel River Valley and Humboldt Bay. Elevations at the project site are between approximately 100 and 240 feet above mean sea level. The highest elevations are represented at the Loleta Drive interchange with US Highway 101, dropping to approximately 200 feet at the existing tank location, and 100 feet at the lowest pipe stream crossing (Figure 2). Geology within the project location is characterized as uplifted marine terrace composed of eolian deposits over mixed alluvium. The average 30-year precipitation between October 1 and September 30 for the region is 40.33 inches, with most of the precipitation occurring between October and April (NWS, 2021). Temperatures in Loleta range from an average low of 39 degrees Fahrenheit (°F) in December to an average high of 72°F in September; extremes in temperatures are relatively uncommon due to the regional maritime influence (SHN, 2020a).

The project site is bordered to the north by Loleta Drive and undeveloped agricultural land. To the east, the project is bordered by US Highway 101 and undeveloped agricultural land. The project is bordered to the south by agricultural land and rural residential

development. To the west, the project is bordered by the town of Loleta and agricultural land and rural residential development. Ravines cross the project area in several locations, representing remnant habitat within the agricultural lands and development, while highway and local road rights-of-way are dominated by shrubby, often non-native species, and early successional habitat.

Vegetation composition varies across the project area, but is representative of coastal agricultural lands, disturbed, early successional woody shrub-dominated areas, and coastal drainageways and ravines. Agricultural fields in the area are dominated by sweet vernal grass (*Anthoxanthum odoratum*), tall fescue (*Festuca arundinacea*), creeping bentgrass (*Agrostis stolonifera*), and hairy oatgrass (*Rytidosperma penicillatum*). Shrubby, early successional areas are dominated by ocean spray (*Holodiscus discolor*), Spanish heather (*Erica lusitanica*), sticky monkey flower (*Diplacus aurantiacus*), hazelnut (*Corylus cornuta* ssp. *californica)*, several cotoneaster species (*Cotoneaster franchetii*, *lacteus*, and *simonsii*), and wax myrtle (*Morella californica*), among others, as well as Sitka spruce (*Picea sitchensis*), coast redwood (*Sequoia sempervirens*), and Douglas fir (*Pseudotsuga menziesii*) saplings. Drainageways and ravines adjacent to the project near the existing tank area are dominated by red alder (*Alnus rubra*), Sitka spruce, slough sedge (*Carex obnupta*), salmonberry (*Rubus spectabilis*), California blackberry (*Rubus ursinus*), and red elderberry (*Sambucus racemosa* var. *racemosa*), among others.

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

a) *Have a substantial 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

Based on the Biological Report prepared by SHN in December 2020, 17 special-status botanical species have the potential to occur within the project area, with no observations recorded for any of them: Pacific golden saxifrage (*Chrysosplenium glechomifolium*), Whitney's farewell to spring (*Clarkia amoena* ssp. *whitneyi*), coast fawn lily (*Erythronium revolutum*), Pacific gilia (*Gilia capitata* ssp. *pacifica*), Tracy's tarplant (*Hemizonia congesta* ssp. *tracyi*), harlequin lotus (*Hosackia gracilis*), perennial goldfields (*Lasthenia californica* ssp. *macrantha*), marsh pea (*Lathyrus palustris*), western lily (*Lilium occidentale*), Howell's montia (*Montia howellii*), Wolf's evening primrose (*Oenothera wolfii),* nodding semaphore grass (*Pleuropogon refractus*), maple leaved checkerbloom (*Sidalcea malachroides*), Siskiyou checkerbloom (*Sidalcea malviflora* ssp. *patula*), coast checkerbloom (*Sidalcea oregana* ssp. *eximia*), Scouler's catchfly (*Silene scouleri* ssp. *scouleri*), and Methuselah's beard lichen (*Usnea longissima*). These species are known to occur within close proximity of the project area or in habitat types that occur in the project area. No special-status botanical species were observed within the project area during the seasonally appropriate April, May, and June 2019 or April and July 2020 surveys. The Biological Report concluded that habitat for special-status botanical species will not be impacted by the proposed project and that the project will have no impact on special-status botanical species (SHN, 2020a).

Based on the Biological Report prepared by SHN in December 2020, 11 special-status animal species have the potential to occur within the project area, with no observations recorded for any of them: northern red-legged frog (*Rana aurora*), Cooper's Hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), Vaux's swift (*Chaetura vauxi*), yellow breasted chat (*Icteria virens*), Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*), black-capped chickadee (*Poecile atricapillus*), obscure bumblebee (*Bombus caliginosus*), western bumblebee (*Bombus occidentalis*), long-eared myotis (*Myotis evotis*), and hoary bat (*Lasiurus cinereus*). No special-status animal species were observed within the project area during the April, May, and June 2019 or April and July 2020 surveys. The Biological Report concluded that the project will not impact special-status animal species but recommended the incorporation of **Mitigation Measure BIO-1**, which would restrict project activities within riparian areas or within buffers of riparian areas to occur between July 15 and October 31 to minimize potential impacts to northern red-legged frog. This measure is applicable to activities within the existing tank parcel and associated access easement. It is not applicable to the removal of aboveground sections of watermain because that is to be done on foot using hand tools only. The Biological Report also recommended the incorporation of **Mitigation Measure BIO-2**, which would avoid impacts to nesting birds in accordance with the Migratory Bird Treaty Act by either 1) conducting vegetation removal and other ground-disturbing activities between late August and mid-March when birds are not typically nesting, or 2) conducting preconstruction nesting bird surveys, and if active nests are encountered, implement species-specific measures in consultation with USFWS and CDFW to prevent nest abandonment (SHN, 2020a). With the incorporation of **Mitigation Measure BIO-1** and **Mitigation Measure BIO-2**, the proposed project will not have a substantial 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 CDFW or USFWS. Therefore, the proposed project would result in a less-than-significant impact with mitigation incorporated.

b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local of regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?* Less-Than-Significant with Mitigation Incorporated

Based on the Biological Report prepared by SHN in December 2020, the USFWS Critical Habitat Portal was queried for habitat designated as critical for species listed under the Federal Endangered Species Act. No critical habitat is designated within the project area. The nearest designated critical habitat, along the Eel River approximately one mile to the south, is for the state threatened steelhead northern California DPS (*Oncorhynchus mykiss irideus* pop. 16) and the state threatened and federally endangered yellow-billed cuckoo (*Coccyzus americanus occidentalis*). Therefore, the project would have no impact on designated critical habitat (SHN, 2020a).

Based on the Biological Report prepared by SHN in December 2020, the following five special-status vegetation communities, ranked S3 or lower, were observed within the study area (Figure 10): *Alnus rubra* riparian forest (Red alder riparian forest [G3S2.2]), *Corylus cornuta* var. *californica* shrubland alliance (Hazelnut scrub [G3S2?]), *Picea sitchensis* forest alliance (Sitka spruce forest [G5S2]), *Rubus* (*parviflorus, spectabilis, ursinus*) shrubland alliance (Coastal brambles [G4S3]), and *Salix hookeriana* shrubland alliance (Coastal dune willow thickets [G4S3]). The Biological Report found that in the two locations where the project proposes to remove the aboveground segments of watermain using hand tools only (Figure 3), the red alder riparian forest and coastal dune willow thicket sensitive vegetation communities (Figure 10) will not be impacted by the project, as watermain removal will be conducted using hand tools only, and pipe sections will be removed by hand. No other special-status vegetation community, riparian, or sensitive natural community areas are within the footprint proposed to be impacted by the project. Although no ground-disturbing activity is proposed within a special-status vegetation community, proposed ground-disturbing activity within 50 feet has the potential to impact a special-status vegetation community indirectly or inadvertently. Proposed new tank construction within the unnumbered parcel adjacent to Loleta Drive will occur within approximately 50 feet of two sensitive vegetation communities – hazelnut scrub and coastal brambles. Removal of the existing tank and appurtenances on APN 309-042-025 will occur within approximately 50 feet of two sensitive vegetation communities – Sitka spruce forest and coastal dune willow thicket. The Biological Report found that project components such as tank removal and aboveground pipeline removal are likely to ultimately improve conditions within the sensitive vegetation communities. However, without mitigation, sensitive vegetation communities could potentially be impacted indirectly or inadvertently by the project. Therefore, the Biological Report recommended the incorporation of **Mitigation Measure BIO-3** to protect sensitive vegetation communities that occur within 50 feet of project construction. This measure would protect sensitive vegetation communities that occur within 50 feet of project construction by 1) clearly identifying them in the construction documents and marking them as equipment exclusion zones during construction, 2) demarcating the communities during construction with high-visibility construction fencing in a manner sufficient to avoid unintentional impacts, and 3) reseeding these areas using only native seed mix consistent with the adjacent sensitive vegetation communities, or sterile barley seed.

This measure is applicable to areas within the existing tank parcel and portions of the associated access easement, as well as to the new tanks site. It is not applicable to the removal of aboveground sections of watermain because that is to be done on foot using hand tools only. With the incorporation of **Mitigation Measure BIO-3**, the Biological Report concluded that impacts to sensitive vegetation communities would be reduced to less than significant (SHN, 2020a).

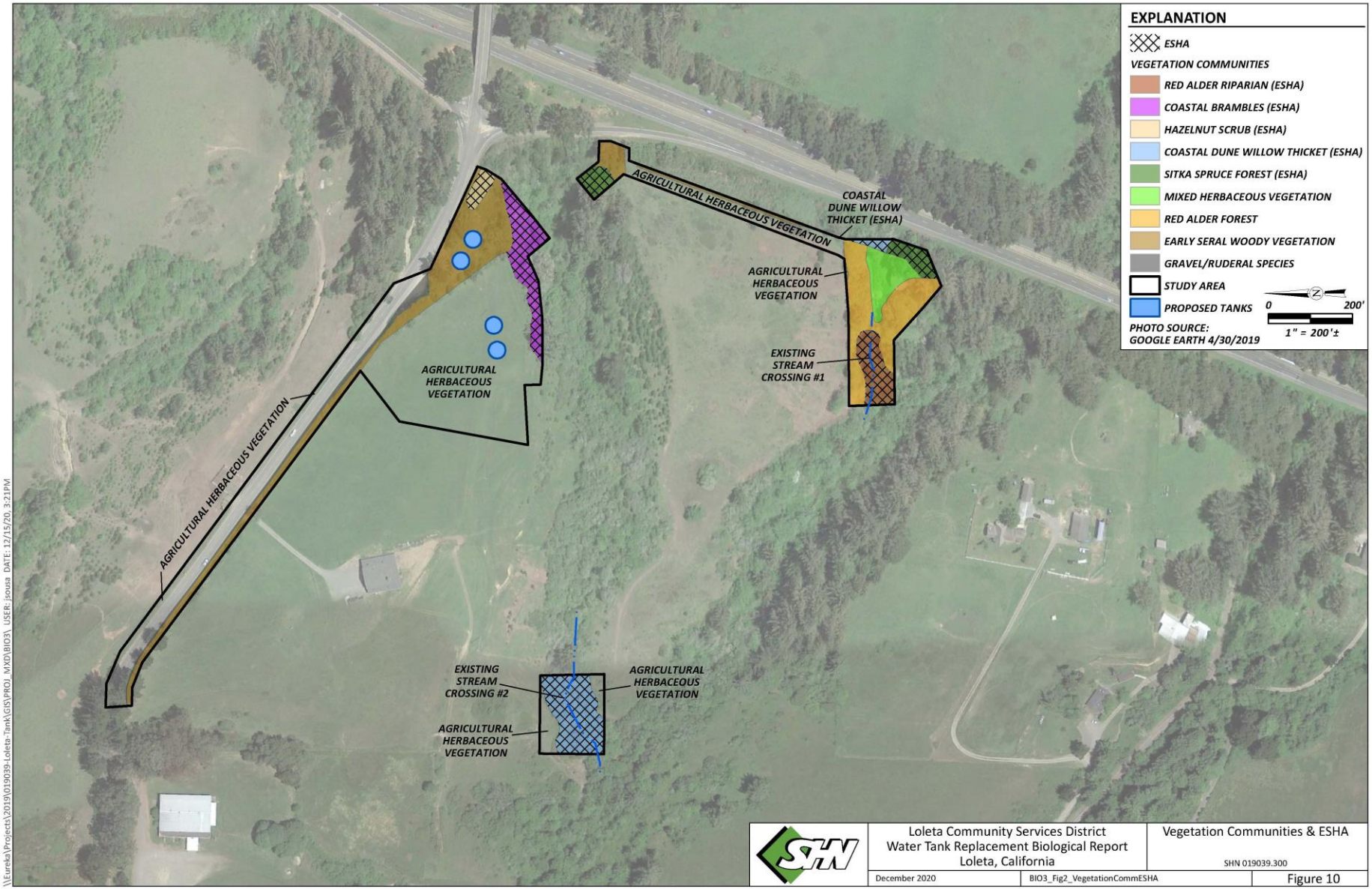
Based on this information, the proposed project will not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. Therefore, the proposed project would result in a less-than-significant impact with mitigation incorporated.

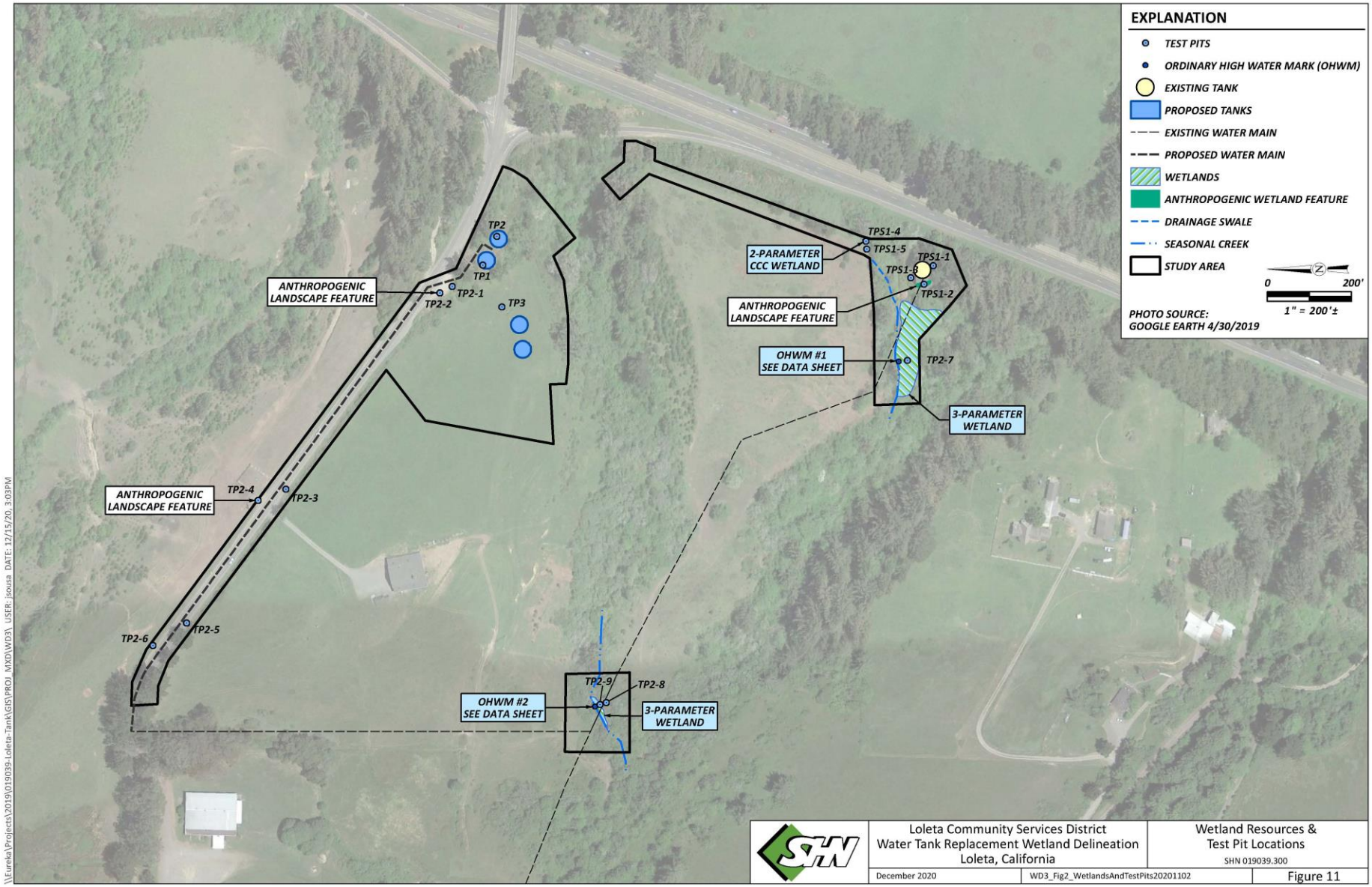
c) *Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?* Less-Than-Significant Impact with Mitigation Incorporated

A site-specific wetland delineation was conducted within the project area (SHN, 2020b). Wetland areas are considered ESHA by the CCC and Eel River Area Plan (Humboldt County, 2014). Furthermore, the Coastal Act and Eel River Area Plan consider any area meeting one or more wetland parameter as being wetland ESHA. Therefore, one-, two- and three-parameter wetlands were mapped and are documented within the wetland delineation (SHN, 2020b). Additionally, ordinary high water mark features were delineated within onsite drainages according to USACE methodology. The results and test pit locations are presented in Figure 11.

At TP2-7, a three-parameter wetland was documented starting approximately 60 feet west of (downslope of) the existing tank, which represents a wetland slope with spring water weeping down the hillside into the intermittent stream located below (Figure 11). Three parameters were met at this test pit, so it is considered both a USACE and CCC wetland site.

TPS1-4 represents a small (135-square foot [sf]) two-parameter area collecting enough water that it displays both hydrophytic vegetation dominance and hydric soils development. This meets the criteria for a CCC wetland site. It is located in a slight swale along the eastern edge of the existing access road just north of the gate at the existing water tank landing (Figure 11), where water from the surrounding area could collect for short durations during the wet season.


EXPLANATION
ESHA
VEGETATION COMMUNITIES
RED ALDER RIPARIAN (ESHA)
COASTAL BRAMBLES (ESHA)
HAZELNUT SCRUB (ESHA)
COASTAL DUNE WILLOW THICKET (ESHA)
SITKA SPRUCE FOREST (ESHA)
MIXED HERBACEOUS VEGETATION
RED ALDER FOREST
EARLY SERAL WOODY VEGETATION
GRAVEL/RUDERAL SPECIES
STUDY AREA
PROPOSED TANKS
0
200'
1" = 200'±
PHOTO SOURCE:
GOOGLE EARTH 4/30/2019
AGRICULTURAL HERBACEOUS VEGETATION
COASTAL DUNE WILLOW THICKET (ESHA)
AGRICULTURAL HERBACEOUS VEGETATION
EXISTING STREAM CROSSING #1
AGRICULTURAL HERBACEOUS VEGETATION
AGRICULTURAL HERBACEOUS VEGETATION
EXISTING STREAM CROSSING #2
AGRICULTURAL HERBACEOUS VEGETATION
AGRICULTURAL HERBACEOUS VEGETATION
\\Eureka\Projects\2019\019039-Loleta-Tank\GIS\PROJ_MXD\BIO3\ USER: jsousa DATE: 12/15/20 3:21PM
Loleta Community Services District
Water Tank Replacement Biological Report
Loleta, California
Vegetation Communities & ESHA
SHN 019039.300
December 2020
BIO3_Fig2_VegetationCommESHA
Figure 10


EXPLANATION
TEST PITS
ORDINARY HIGH WATER MARK (OHWM)
EXISTING TANK
PROPOSED TANKS
EXISTING WATER MAIN
PROPOSED WATER MAIN
WETLANDS
ANTHROPOGENIC WETLAND FEATURE
DRAINAGE SWALE
SEASONAL CREEK
STUDY AREA
0
200'
1" = 200'±
PHOTO SOURCE:
GOOGLE EARTH 4/30/2019
TP2
TP1
TP2-1
TP2-2
TP3
ANTHROPOGENIC LANDSCAPE FEATURE
TPS1-4
TPS1-5
TPS1-1
TPS1-3
TPS1-2
2-PARAMETER CCC WETLAND
ANTHROPOGENIC LANDSCAPE FEATURE
OHWM #1 SEE DATA SHEET
TP2-7
3-PARAMETER WETLAND
ANTHROPOGENIC LANDSCAPE FEATURE
TP2-4
TP2-3
TP2-6
TP2-5
TP2-9
TP2-8
OHWM #2 SEE DATA SHEET
3-PARAMETER WETLAND
Loleta Community Services District
Water Tank Replacement Wetland Delineation
Loleta, California
Wetland Resources & Test Pit Locations
SHN 019039.300
December 2020
WD3_Fig2_WetlandsAndTestPits20201102
Figure 11
\\Eureka\Projects\2019\019039-Loleta-Tank\GIS\PROJ_MXD\WD3\ USER: jsousa DATE: 12/15/20, 3:03PM

TPS1-2 represents an area with historical and continual anthropogenic influence and was classified as an anthropogenic landscape feature (non-jurisdictional). This area lies in the shade near the southwestern side of the existing leaking water tank (Figure 11). The flat topography created by the landing excavated into the hillside to seat the water tank reduces water runoff and encourages ponding. Also, LCSD's general manager confirmed that the District has been losing approximately 10,000 gallons per day from the leaking tank (Drumm, 2020). No hydric soil or wetland hydrology indicators were observed. Only the vegetation parameter was met, so this TP and associated area was not considered a USACE wetland site. With only one parameter (vegetation) at TPS1-2, attributed to constant leaking from the aging existing redwood water tank, this location was not considered a Coastal Act wetland either.

An Ordinary High Water Mark (OHWM) was documented along the two intermittent stream channels where existing aboveground water pipe crossings occur. These OHWM transects were located adjacent to three-parameter wetlands, with the TP2-7 wetland associated with OHWM #1 and the TP2-9 wetland associated with OHWM #2 (Figure 11). OHWM #1 is located approximately 200 feet downhill (west) of the existing water tank. The stream channel is 18 inches wide at OHWM #1. OHWM #2 is approximately 1,100 feet west northwest of OHWM #1. The stream channel at OHWM #2 is approximately 3.5 feet wide.

TP2-2 and TP2-4 along Loleta Drive represent two mud puddles formed by vehicles in areas used for motor vehicle parking and turnarounds. These mud puddle features included a small three-parameter feature at TP2-2 and a one-parameter feature at TP2- 4 (Figure 11). As anthropogenic features associated with the roadway, these two sites were called out and described as anthropogenic landscape features but were excluded from being classified as wetlands.

The remainder of the project area represents well- to somewhat well-drained soil with moderately strong soil structure and undisturbed plant root growth (SHN, 2020b).

The project proposes to remove the existing water tank and associated aboveground piping and appurtenances. The existing access road and easement are wide enough to accommodate construction equipment without directly impacting the two-parameter CCC wetland site associated with TPS1-4, which is located in a slight swale along the eastern edge of the existing tank access road. Activities associated with the removal of the existing tank will occur within 50 feet of the TPS1-4 wetland and the three-parameter wetland and OHWM associated with TP2-7, but will not directly impact these features. Removal of the existing water tank will remove the 10,000-gallon-per-day water leak that has resulted in the presence of the anthropogenic landscape feature associated with TPS1-2. Removal of this anthropogenic non-jurisdictional feature is not considered an impact under CEQA.

The proposed construction of the two replacement water tanks at the unnumbered parcel along Loleta Drive and the proposed construction of new below-ground water main along the south side of Loleta Drive will not impact any wetlands or other jurisdictional waters, as none are present.

The proposed removal of two aboveground sections of pipe from riparian/wetland areas would take place immediately adjacent to jurisdictional features, as the pipeline currently crosses two streams with associated riparian habitat. However, this would not impact wetlands/OHWM because removal will be accomplished using hand tools only, any shavings will be captured and removed, and pipe sections will be removed by hand, as described in Section 2.0 – Project Description.

Section 2.0 – Project Description includes best management practices (BMPs) and avoidance and minimization measures that will be implemented during project construction. These will reduce the project's potential to result in substantial adverse effects on jurisdictional wetlands/OHWM. Additionally, **Mitigation Measure BIO-4** is incorporated, which requires additional measures to avoid and protect nearby (within 50 feet) wetlands/OHWM from unintended direct or indirect impacts.

With the implementation of **Mitigation Measure BIO-4** and for the reasons explained above, the proposed project will not 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. Therefore, the proposed project will have a less-than-significant impact with mitigation incorporated on this resource category.

d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?* Less-Than-Significant Impact with Mitigation Incorporated

Wildlife movement corridors within the project vicinity are concentrated along shrubby and vegetated areas, especially the riparian corridor running between the existing and proposed tank sites. The project location is positioned between US Highway 101 and Loleta Drive, and these existing features may restrict wildlife movement out of the project area to the north and east. The proposed removal of the aboveground watermain stream crossings will likely improve the movement of larger species, such as deer, within the riparian corridors. Tank placement adjacent to Loleta Drive will have little to no impact on wildlife movement, while the removal

of the existing tank from its current location will likely improve wildlife movement within the area. Impacts to wildlife movement corridors will be less than significant given that the project will likely improve wildlife movement corridors within the project area (SHN, 2020a). Deterrence of migratory and nesting birds associated with noise is addressed in Section IV(a) with **Mitigation Measure BIO-2** to ensure the potential impact to migratory and nesting birds would be less than significant.

For the reasons explained above, the proposed project will not 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. Therefore, the proposed project will have a less-than-significant impact with mitigation incorporated on this resource category.

e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?* Less-Than-Significant Impact

Vegetation at the proposed new tanks site along Loleta Drive consists mostly of early seral woody vegetation reflecting past disturbance of the site, likely during the development of US Highway 101 and Loleta Drive and is transitioning to conifer cover. Several mature Monterey pines also exist along that parcel's Loleta Drive frontage. Removal of trees or saplings will occur during construction of the new water tanks site.

Humboldt County regulates tree removal for trees larger than 12 inches in diameter that are in residential zones through a Special Permit. As all potential tree removal associated with the project would occur outside a residential zone, Humboldt County's tree removal policy does not apply.

The Eel River Area Local Coastal Plan (Humboldt County, 2014) identifies land uses and standards by which development would be evaluated within the Coastal Zone. Applicable policies include:

3.41 Environmentally Sensitive Habitats

A. Identification of Environmentally Sensitive Habitats

B. Wetlands Identification and Development Policies

C. Transitional Agricultural Wetlands Identification and Development Policies

The Biological Report (SHN, 2020a) and Wetland and Other Waters Delineation (SHN, 2020b) identified environmentally sensitive habitats consistent with Section 3.41A of the Eel River Area Plan. The proposed project is consistent with Section 3.41B of the Eel River Area Plan as it does not propose the diking, filling, or dredging of jurisdictional wetlands or OHWM. The project area is zoned Agriculture Exclusive, 60-acre minimum lot size, with Transitional Agricultural Lands combining zone (AE-60/T). The project is consistent with Section 3.41C of the Eel River Area Plan as no impact to coastal wetlands/waters is proposed, and subsection C.2.b allows for incidental public services purposes within the Transitional Agricultural Lands land use designation. As the project would obtain a Coastal Development Permit from Humboldt County, the project would be required to be consistent with all applicable provisions of the Eel River Area Plan as a condition of the permit. No conflicts with policies or ordinances protecting biological resources have been identified.

For the reasons explained above, the proposed project will not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Therefore, the proposed project will have a less-than-significant impact on this resource category.

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

No habitat conservation plans, or other similar plans have been adopted for the project site or project area. Therefore, no impact would result.

Mitigation Measures: In order for the proposed project to result in a less-than-significant impact to *Biological Resources*, the following mitigation measures will be implemented:

Mitigation Measure BIO-1 (Protect Special-Status Amphibians): To minimize potential impacts to northern red-legged frog, project activities within riparian areas or within buffers of riparian areas shall occur between July 15 and October 31.

Mitigation Measure BIO-2 (Protect Nesting Birds): To avoid potential impacts to nesting birds, in accordance with the Migratory Bird Treaty Act, one of the following shall be implemented:

- Conduct vegetation removal and other ground-disturbance activities associated with any construction activities between late August and mid-March, when birds are not typically nesting, or
- If vegetation removal or ground-disturbing activity is to take place during the nesting season (March 15 to August 15 for most birds), a qualified biologist shall conduct a pre-construction nesting bird survey. Pre-construction surveys for nesting pairs, nests, and eggs shall occur within the construction limits and within 100 feet (200 feet for raptors) of the construction limits. If active nests are encountered, species-specific measures shall be prepared by a qualified biologist in consultation with the USFWS and CDFW and implemented to prevent abandonment of the active nest.

Mitigation Measure BIO-3 (Protect Sensitive Vegetation Communities): To protect sensitive vegetation communities that occur within 50 feet of project construction:

- Sensitive vegetation communities shall be clearly identified in the construction documents and reviewed by LCSD prior to issuing for bid to ensure they are clearly marked as equipment exclusion zones during construction.
- Sensitive vegetation communities shall be demarcated by high-visibility construction fencing during the project construction period in a manner sufficient to avoid unintentional impacts.
- Any reseeding in these areas shall use native seed mix consistent with those found within the adjacent sensitive vegetation communities, or sterile barley seed.

Mitigation Measure BIO-4 (Protect Wetlands and Other Waters): To avoid and minimize impacts to wetlands and other waters of the United States and State during project construction, including Coastal Zone wetlands and OHWM, LCSD shall implement the following avoidance and protection measures for nearby (within 50 feet) Waters of the United States and Waters of the State:

- Wetlands and OHWM shall be clearly identified in the construction documents and reviewed by LCSD prior to issuing for bid to ensure they are clearly marked as equipment exclusion zones during construction.
- Wetlands and OHWM shall be demarcated by high-visibility construction fencing during the project construction period in a manner sufficient to avoid unintentional impacts.
- Suitable perimeter control BMPs, such as silt fences or straw wattles shall be placed below all construction activities in the direction of downslope surface water features to intercept sediment before it reaches the waterway. These BMPs shall be installed prior to any clearing or grading activities.

V. CULTURAL RESOURCES: *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?		**X**		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		**X**		
c) Disturb any human remains, including those interred outside of formal cemeteries?		**X**		

Setting: The project, located in the community of Loleta, proposes to remove an existing water storage tank, construct two new replacement tanks, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe using hand tools.

A Cultural Resources Investigation was completed for the project by William Rich & Associates (WRA; WRA, 2019). The methods employed in the Investigation included a record search at the Northwest Information Center (NWIC), a review of archaeological and historical literature pertinent to the project area and general region, correspondence with Native Americans and other knowledgeable individuals regarding the history of the area, and a pedestrian field survey of the project area of potential effects (APE) and adjacent terrain. According to the NWIC files, no Native American or historic period cultural resources are known in the project area or within a half-mile buffer.

Background research included a review of archaeological and historical literature pertinent to the project region. Ethnogeographic reports indicate that the project area is located within the traditional territory of the Wiyot people, who are currently represented by three separate federally recognized governments. The Wiyot traditionally had large villages and camps along the margin of Humboldt Bay and along the lower Eel River and Mad River. No specific villages or other named areas are documented for the upslope hills on Table Bluff that later became the townsite of Loleta. The general project vicinity is in an area known for historic period activity by American settlers, who utilized this rich environment mainly for ranching and agricultural production. The City of Loleta, initially named Swauger until the 1890s, was for many decades a successful commercial and residential stop along the route of the Eel River and Eureka Railroad. The railroad was in turn re-named the Northwestern Pacific Railroad after being purchased by the Santa Fe and Southern Pacific Railroad companies in 1907 (WRA, 2019).

Correspondence with Wiyot area tribes was conducted by WRA to garner information about the project area. The Native American Heritage Commission (NAHC) was asked to search their sacred lands database for the project area and provide a suggested list of tribes with interest in this area of Humboldt County. The Tribal Historic Preservation Officers (THPO) for the Blue Lake Rancheria, the Wiyot Tribe, and the Bear River Band of the Rohnerville Rancheria were contacted by WRA to inquire about tribal cultural resources or other resource types in the vicinity. Responses were received by WRA from all three tribes. On July 11, 2019 Janet Eidsness, THPO for the Blue Lake Rancheria responded that the proposed project is outside of the mapped area of concern for the tribe and that they have no comments. On July 15, 2019 Ted Hernandez, Chairman of the Wiyot Tribe, responded and stated they are not aware of any cultural resources at the project location, and recommended that an inadvertent discovery protocol be implemented during the project. On July 16, 2019 Erika Cooper, THPO for the Bear River Band of the Rohnerville Rancheria, stated that there are no known cultural resources at the project location (WRA, 2019).

A request for tribal consultation pursuant to AB 52 was initiated by LCSD on October 5, 2021 with the Wiyot Tribe, Bear River Band of Rohnerville Rancheria, Blue Lake Rancheria, and Karuk Tribe. On October 28, 2021, the THPO for the Blue Lake Rancheria responded that the project is outside the area of concern for cultural resources mapped by the Blue Lake Rancheria, and they declined the invitation to consult. No other responses were received.

The Cultural Resources Investigation found that water storage tank proposed for removal is less than 50 years of age and thus does not meet the age criteria for listing on the California Register of Historical Resources (CRHR) or the National Register of Historic Places (NRHP). Additionally, all other buildings and structures on parcels which are bisected by the proposed APE, are less than 50 years in age. No artifacts, features, sites, buildings, or other cultural resources were identified within the direct APE during the investigation. The investigation concluded that no significant archaeological or historic period cultural resources that for the purposes of CEQA (15064.5 (a)) would be considered an historical resource, or an historic property for the purposes of 36 CFR Part 800.16, exist in the direct APE.

Therefore, the investigation resulted in a finding of no historic properties affected (36 CFR 800.4(d)(1)) and no substantial adverse change to an historical resource (CEQA 15064.5 (a)). Additionally, the investigation found that tribal cultural resources (PRC 21074) do not appear to be present (WRA, 2019).

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

a) *Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?* Less-Than-Significant Impact with Mitigation Incorporated

As described in the Cultural Resources Setting, a Cultural Resources Investigation was prepared for the proposed project (WRA, 2019). The Investigation found that no significant archaeological or historic period cultural resources that for the purposes of CEQA (15064.5 (a)) would be considered an historical resource, or an historic property for the purposes of 36 CFR Part 800.16, exist in the direct APE. Therefore, the investigation resulted in a finding of no historic properties affected (36 CFR 800.4(d)(1)) and no substantial adverse change to an historical resource (CEQA 15064.5 (a)). However, there is the potential to uncover unknown historical resources during construction of the project. For this reason, an Inadvertent Discovery Protocol has been included as **Mitigation Measure CR-1** for the proposed project.

With the implementation of **Mitigation Measure CR-1** and for the reasons explained above, it has been determined that the proposed project will not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. Therefore, the proposed project would result in a less-than-significant impact with mitigation incorporated on this resource category.

b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?* Less-Than-Significant Impact with Mitigation Incorporated

As described in the Cultural Resources Setting, a Cultural Resources Investigation was prepared for the proposed project (WRA, 2019). No artifacts, features, sites, buildings, or other cultural resources were identified within the direct APE during the investigation. The investigation concluded that no significant archaeological or historic period cultural resources that for the purposes of CEQA (15064.5 (a)) would be considered an historical resource, or an historic property for the purposes of 36 CFR Part 800.16, exist in the direct APE. Therefore, the investigation resulted in a finding of no historic properties affected (36 CFR 800.4(d)(1)) and no substantial adverse change to an historical resource (CEQA 15064.5 (a)). Additionally, the investigation found that tribal cultural resources (PRC 21074) do not appear to be present (WRA, 2019). Although the investigation indicated that it would be unlikely to encounter significant buried archaeological materials during project activities, it provided brief guidance in the event buried concentrations of archaeological materials are unearthed. This is incorporated as **Mitigation Measure CR-1**.

With the implementation of **Mitigation Measure CR-1** and for the reasons explained above, it has been determined that the proposed project will not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. Therefore, the proposed project would result in a less-than-significant impact with mitigation incorporated on this resource category.

c) *Disturb any human remains, including those interred outside of formal cemeteries?* Less-Than-Significant Impact with Mitigation Incorporated

No evidence of any human remains, including those interred outside of formal cemeteries were observed during the pedestrian survey conducted in summer and fall 2019 (WRA, 2019).

However, there is a possibility that human remains, and historic burial sites could exist in the area and may be uncovered during project development. As such, if human remains are discovered during project construction, work will stop at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie human remains (Public Resources Code, Section 7050.5). The Humboldt County Coroner will be contacted to determine if the cause of death must be investigated. If the Coroner determines that the remains are of Native American origin, it will be necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the NAHC (Public Resources Code, Section 5097). The Coroner will contact the NAHC. The THPOs for the Wiyot Tribe, Blue Lake Rancheria, and the Bear River Band of Rohnerville Rancheria, descendants, or most likely descendants, of the deceased will be contacted and work will not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and

disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in Public Resources Code, Section 5097.98. Work may resume if the NAHC is unable to identify a descendant or the descendant failed to make a recommendation. The Inadvertent Discovery Protocol for the discovery of human remains is included as **Mitigation Measure CR-2**.

With the implementation of **Mitigation Measure CR-2** and for the reasons explained above, it has been determined that the proposed project will not disturb any human remains, including those interred outside of formal cemeteries. Therefore, the proposed project would result in a less-than-significant impact with mitigation incorporated on this resource category.

Mitigation Measures: In order for the proposed project to result in a less-than-significant impact to *Cultural Resources*, the following mitigation measures will be implemented:

Mitigation Measure CR-1 (Inadvertent Discovery Protocol – Archaeological and Historical Resources): Implementation of the Inadvertent Discovery Protocol in the WRA Cultural Resources Investigation (2019) shall be required during the proposed project's construction activity to minimize impacts to archaeological and historical resources: If cultural resources are encountered during construction activities, all onsite work shall cease in the immediate area and within a 50-foot buffer of the discovery location. A qualified archaeologist will be retained to evaluate and assess the significance of the discovery, and develop and implement an avoidance or mitigation plan, as appropriate. For discoveries known or likely to be associated with Native American heritage (prehistoric sites and select historic period sites), the Tribal Historic Preservation Officers (THPOs) for the Bear River Band of Rohnerville Rancheria, Blue Lake Rancheria, and Wiyot Tribe are also to be contacted immediately to evaluate the discovery and, in consultation with the project proponent, the County, and consulting archaeologist, develop a treatment plan in any instance where significant impacts cannot be avoided. Prehistoric materials which could be encountered include: obsidian and chert debitage or formal tools, grinding implements, (for example, pestles, handstones, bowl mortars, slabs), locally darkened midden, deposits of shell, faunal remains, and human burials. Historic archaeological discoveries may include nineteenth century building foundations, structural remains, or concentrations of artifacts made of glass, ceramics, metal or other materials found in buried pits, old wells or privies.

Mitigation Measure CR-2 (Inadvertent Discovery Protocol – Human Remains): If human remains are discovered during project construction, work will stop at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie human remains (Public Resources Code, Section 7050.5). The Humboldt County Coroner will be contacted to determine if the cause of death must be investigated. If the Coroner determines that the remains are of Native American origin, it will be necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the NAHC (Public Resources Code, Section 5097). The Coroner will contact the NAHC. The THPOs for the Wiyot Tribe, Blue Lake Rancheria, and the Bear River Band of Rohnerville Rancheria, descendants, or most likely descendants, of the deceased will be contacted and work will not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in Public Resources Code, Section 5097.98. Work may resume if the NAHC is unable to identify a descendant or the descendant failed to make a recommendation.

VI. ENERGY: *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?			**X**	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			**X**	

Setting: The project, located in the unincorporated community of Loleta, proposes to remove an existing water storage tank, construct two new replacement tanks, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe. With an original design capacity of approximately 225,000 gallons, the existing redwood water tank is now failing with several leaks, resulting in significant water loss and a reduction in the tank's useable capacity. System losses from the leaking tank (approximately 10,000 gallons per day [Drumm, 2020]) represent a loss rate of 20%-24%.

In Humboldt County, energy is used as a transportation fuel and as electrical and heat energy in homes, businesses, industries, and agriculture. The majority of energy used in Humboldt County is imported, with the exception of biomass energy. Although the majority of electricity is generated in the county, a large portion of it is generated using natural gas. The county imports about 90% of its natural gas; the rest is obtained locally from fields in the Eel River valley (Schatz Energy Research Center, 2005). Essentially all of the county's transportation fuels are imported.

Humboldt County is remotely located at the end of the electrical and natural gas supply grids, and this limits both energy supply options and system reliability. Pacific Gas & Electric Company (PG&E) owns the natural gas and electricity transmission and distribution systems in Humboldt County. There is one major natural gas supply line that serves the county and four electrical transmission circuits (Schatz Energy Research Center, 2005).

Prior to May 2017, electricity to the project parcels was provided by the PG&E Humboldt Bay Generating Station (HBGS) which is located just south of the City of Eureka along Humboldt Bay. The HBGS began commercial operation in 2010 and normally runs on natural gas, with ultra-low sulfur diesel as its backup fuel. As indicated on the PG&E website (www.pge.com), the HBGS is 33 percent more efficient than the previous Humboldt Bay Power Plant (HBPP) fossil fuel units.

Beginning in May 2017, electricity service for Humboldt County transitioned to the Redwood Coast Energy Authority (RCEA) Community Choice Energy (CCE) program. The CCE program allows city and county governments to pool (or aggregate) the electricity demands of their communities in order to increase local control over electric rates, purchase power with higher renewable content, reduce greenhouse gas emissions, and reinvest in local energy infrastructure. The electricity continues to be distributed and delivered over the existing power lines by PG&E. The CCE program procures approximately 47% of its power from renewable sources (RCEA, 2021). In addition, customers can choose to opt up to a premium service called Repower+, which is 100% renewable energy at only $0.01 more per kilowatt hour (kWh).

The existing water tank site has an electricity service connection from PG&E and a solar panel which also provides electricity.

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

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

Construction

Temporary energy use in connection with project construction would entail consumption of diesel fuel and gasoline by construction equipment and by the transportation of earth-moving equipment, construction materials, supplies, and construction personnel. Construction activities will include site preparation, grading, tank construction, trenching, paving, demolition, and revegetation.

Given the short construction period and implementation of State regulations regarding vehicle emission and fuels standards, such as the Low Carbon Fuel Standard and anti-idling regulations, energy use related to construction would not be wasteful, inefficient, or unnecessary.

Operation

Energy use during operation of the water system will relate primarily to the pumping of treated water from the same existing sources (two groundwater wells and the water treatment facility located west of US Highway 101) to the new water storage tanks to be constructed along Loleta Drive. Because the elevation of the proposed new tanks site (225 feet above mean sea level) is approximately the same as the existing tank site (210 feet above mean sea level), post-project pumping energy demands would not exceed existing pre-project demands. Additionally, the project would replace the existing redwood tank that leaks approximately 10,000 gallons of water per day (a loss rate of 20%-24%) with new water tanks that do not leak. The reduction in water system losses associated with replacing the leaking tank represent a substantial reduction in the existing waste of energy for pumping water (as well as energy used during water treatment). The water pumps would only be in use when needed; thus, no energy would be wasted running the pumps when not needed. There also would be a small amount of fuel used for maintenance worker trips to the new tanks site. Neither the pumping nor the worker trips would be conducted in a manner that would result in wasteful, inefficient, or unnecessary consumption of energy.

For the reasons explained above, construction and operation of the proposed project will not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

b) *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?* Less-Than-Significant Impact

The project proposes upgrades to community water system infrastructure that will result in substantial energy savings from reduced pumping and reduced wasting of water. This is not a type of project that would have the potential to conflict with or obstruct state or local plans for renewable energy or energy efficiency. Instead, the project will be consistent with plans for renewable energy or energy efficiency since it will receive electricity from a CCE program with a power mix containing 47% renewable energy sources, will reduce energy use from pumping, and will not result in increased vehicle-miles-travelled because the new tank location is very near the existing tank location.

For the reasons explained above, the proposed project will not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

Mitigation Measures: No mitigation measures are required for the project to result in a less-than-significant impact on *Energy*.

VII. GEOLOGY AND SOILS: *Would the project:*	**Potentially Significant Impact**	**Less-Than-Significant with Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a.i) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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 Publications 42.			**X**	
a.ii) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?		**X**		
a.iii) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?		**X**		
a.iv) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?			**X**	
b) Result in substantial soil erosion or the loss of topsoil?			**X**	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?		**X**		
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?			**X**	
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?				**X**
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		**X**		

Setting: A Geotechnical Investigation Report was prepared for the project (SHN, 2020c). The report evaluated subsurface materials and conditions at the site and provided geotechnical recommendations for use in design and construction of the project. The investigation included a review of available geotechnical information for the site and vicinity, subsurface explorations, laboratory testing, and engineering and seismic analyses. The report recommended the proposed new water storage tank be considered the preferred location due to the gentle ground surface gradients, accessibility, and distance from the nearest unstable descending slopes. It recommended ground improvements that are intended to mitigate the risks associated with settlement (both total and differential) of the underlying fine-grained sediments.

The project, located in the unincorporated community of Loleta, proposes to remove an existing water storage tank, construct two new replacement tanks, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe. Loleta is located within the Coast Ranges Geomorphic Province of California, which is characterized by subparallel north- to northwest-trending mountain ranges and intermountain and coastal alluvial valleys and plains. Topography in the province is controlled by the predominant geological structural trends within the Coast Range that generally consist of northwest trending synclines, anticlines, and faulted blocks.

The location of the proposed new water tanks is on original ground that has not been modified by any grading or filling. Slope gradients in and around the proposed new tanks site are relatively gentle and range from about 2 to 5 percent with a south to southwest slope

aspect. Slope gradients at the existing tank site and associated access road are up to approximately 8 percent. Slope gradients along Loleta Drive where the new water main would be constructed are up to approximately 3 to 4 percent. Streamside slope gradients in the drainages where aboveground sections of defunct water main are to be removed are up to approximately 30 percent.

The project site is located near the north step-over of the Tompkins Hill anticline with the Table Bluff anticline as shown in Figure 12 – Geologic Map. The site is underlain by middle Pleistocene age Hookton Formation, which is reported to be less than about 450,000 years old. Hookton Formation sediments are composed of coarse granular nearshore marine deposits that transition to fine-grained coastal plain deposits. Natural exposures of the Hookton sediments occur within the sidehill drainages that have been incised into the flanks of Table Bluff and Tompkins Hill, as well as in the US Highway 101 road cuts in proximity to the project site. At the project site, Hookton sediments consist of mostly fine-grained coastal floodplain deposits with interbedded coarse-grained stream deposits. The fine-grained sediments are generally composed of strongly indurated lean clay and silt that were likely to have been deposited in a low-lying coastal stream valley similar to the modern-day Eel River valley.

No free groundwater was encountered to a depth of at least 20 feet, and the groundwater zone is not expected to be encountered during site grading and construction. Shallowly perched groundwater and saturated soil conditions, however, may be encountered within the upper 10 feet of the ground surface during and immediately following the wet season.

Potential geologic/geotechnical hazards assessed for the site include seismic ground shaking, surface fault rupture, liquefaction and related phenomena, slope instability, and adverse soil conditions (SHN, 2020c). The results are discussed below.

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

a.i) *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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?* Less-Than-Significant Impact

Seismically-induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. The magnitude and nature of fault rupture can vary for different faults or even along different strands of the same fault. Surface rupture can damage or collapse buildings, cause severe damage to roads and pavement structures, and cause failure of overhead as well as underground utilities.

The surface trace of the Little Salmon fault is projected to be 2 miles north of the project site and is the nearest Holocene age fault designated by the State of California as being active. The project site, however, is not located within an Alquist-Priolo Fault Hazard Zone associated with this or any other active fault. No known active or recently inactive fault crosses the project site, and the Geotechnical Investigation Report found no field evidence to suggest that a previously unrecognized active fault may be present (SHN, 2020c). Therefore, the risk of surface fault rupture at the project site is considered remote.

For the reasons explained above, it has been determined the proposed project will not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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. Therefore, the proposed project would result in a less-than-significant impact.

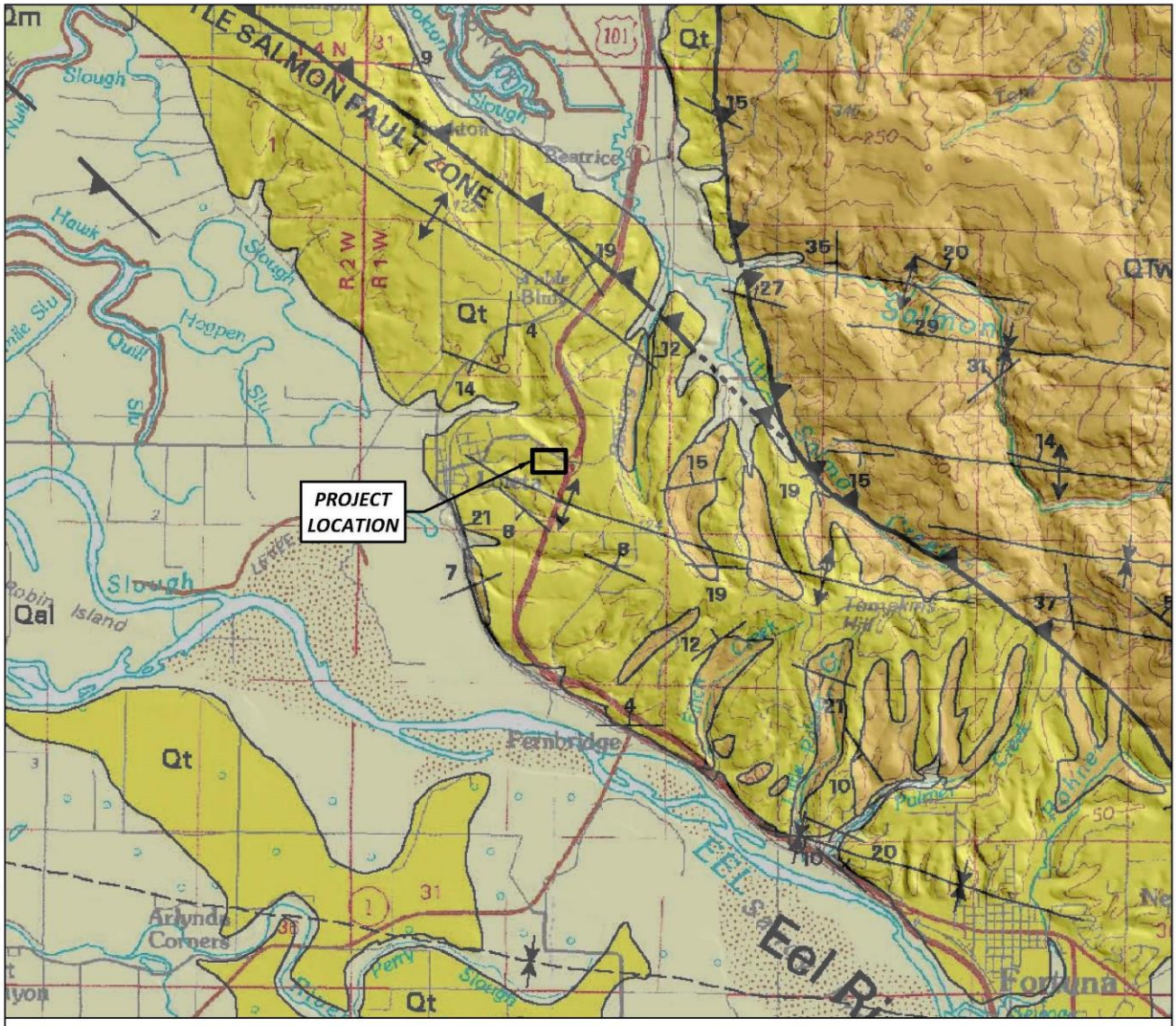
a.ii) *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?* Less Than Significant with Mitigation Incorporated

The project site is in proximity to numerous late Quaternary faults located in both the onshore and offshore areas of the Eel River and Humboldt Bay regions. The Humboldt County coast in general is a highly active tectonic region that has been subjected to numerous earthquakes of low to moderate strength and occasionally to very strong earthquakes during the brief 170-year or so period of written record. Seismicity in the region is attributed primarily to the interaction between the Pacific, Gorda, and North American plates. The convergence of the Gorda and North American plates and interaction of the Pacific plate results in both northeast-southwest compressive strain of the leading edge of the North American plate and internal deformation of the Gorda plate.

Several different primary earthquake sources have been identified from the interaction of these plates including:

1) an interplate convergence zone consisting of the Cascadia Subduction Zone (CSZ),

2) an intra-slab zone consisting of the internal deformation of the subducting Gorda plate,



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EXPLANATION

Qal — **Alluvial deposits (Holocene and late Pleistocene?)**-Clay, silt, sand, gravel, and boulders, deposited in stream beds, alluvial fans, terraces, flood plains and ponds; and soils formed on these deposits. Includes largely Holocene deposits in modern stream channels and on flood plains

Qm — **Undeformed marine shoreline and aolian deposits (Holocene and late Pleistocene)**-Gravel and sand deposited in marine terraces, on benches, and on dunes along present shorelines. In northern Eureka quadrangle, near Arcata, includes older late Pleistocene dune sands (Carver and others, 1984)

Qt — **Undifferentiated nonmarine terrace deposits (Holocene and Pleistocene)**-Dissected and (or) uplifted gravel, sand, silt, and clay, deposited in fluvial settings. In western Eureka quadrangle (Sheet 1) unit includes minor shallow marine intertongues and warped and tilted beds of late Pleistocene Hookton and Rohnerville Formations of Ogle (1953), in addition to younger late Pleistocene and Holocene fluvial terrace units a few feet to a few tens of feet higher than normal modern high-water level

QTw — **Marine and nonmarine overlap deposits (late Pleistocene to middle Miocene)**-Thin-bedded to massive, weakly lithified siltstone, fine- to medium-grained sandstone, silty to diatomaceous mudstone and locally soft, scaly mudstone. Locally includes lenses of pebble to boulder conglomerate, carbonate concretions, abundant molluscan fossils, woody debris, and horizons of rhyolitic volcanic ash that are greater than 1 meter thick in some areas. Includes the Wildcat Group (Ogle, 1953), the Bear River beds (Haller, 1980), and related outlier Neogene deposits isolated along faults near Briceland, Garberville, Benbow, Piercy, Bridgeville and northeast of Weott. Unit also includes minor fault-bounded blocks along or near the coast between Bear River and the Mattole River that are incorporated into melange of the Coastal terrane; the Neogene Falor Formation northeast of Eureka (Manning and Ogle, 1950); and equivalent deposits in the offshore area deposited in shelf, slope, and slope basin settings. A few poorly exposed erosional remnants of shallow marine to brackish water strata mapped along high ridge crests overlying the Franciscan Complex in the 1:24,000 Zenia quadrangle are tentatively assigned to this unit. South of this map, unit correlates with valley-fill, perched gravel and shallow marine to nonmarine coal-bearing sedimentary rocks of Quaternary and Tertiary age in the Round Valley area of Covelo 1:100,000 quadrangle (Jayko and others, 1989)

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SHN	Loleta Community Services District Water Storage Tanks Geotechnical Investigation Loleta, Humboldt County, CA	Geologic Map (McLaughlin et al., 2000) SHN 019039.400
	June 2020 | Figure3_GeologicMap	Figure 12

3) a shallow crustal zone in the overriding North American plate, and

4) interplate transform boundaries consisting of the Mendocino fault zone and San Andreas fault.

Historical earthquakes have been correlated mainly with the intraslab zone and interplate transform boundaries. A brief description of each zone and the relative hazard posed by earthquakes generated from these sources are provided below.

The leading edge of the CSZ is as close as 35 miles offshore of the Humboldt Bay region. The CSZ is a regional scale thrust fault (megathrust) that forms the plate boundary between the subducting Gorda plate and Juan de Fuca plate to the north, and the overriding North America plate in the offshore areas of the Pacific Northwest. The subduction zone extends a length of 750 miles from offshore northern California to southern British Columbia. Geologic evidence on the Pacific Northwest coast (such as, drowned coastal forests, buried tidal marshes, and tsunami wave deposits) indicate that great subduction zone earthquakes have repeatedly occurred in the past 7,000 years and presumably throughout the middle to late Quaternary. A great subduction earthquake along the CSZ would generate long duration, very strong ground shaking at the project site.

Earthquakes generated from the intraslab zone are caused by the deformation and breakup of the subducting Gorda plate in the offshore areas and beneath the leading edge of the North American plate. Gorda plate earthquakes account for most of the historical seismicity in the region. A recent strong intra-slab, 6.8 magnitude (M_W), strike-slip event occurred less than 50 miles offshore of Eureka in March 2014 and produced moderate ground shaking along the Humboldt County coast. One of the largest recent intraslab events was the M_W 7.2 oblique-slip event, which occurred less than 7 miles offshore of Trinidad in November 1980. Damage to infrastructure that occurred because of this earthquake included the partial collapse of a US Highway 101 overpass south of Eureka.

Shallow, crustal earthquakes are those that occur in the overriding North American plate generated from surface or near-surface (blind) thrust faults. These fault zones are comprised of multiple northwest-striking and northeast-dipping low-angle reverse faults located in both the onshore and offshore areas between Table Bluff and Big Lagoon to the north of the site. These fault zones are part of a broad fold and thrust belt actively deforming the accretionary wedge in both the offshore and onshore areas of north coastal California, and offshore of the Oregon and Washington coast. These thrust faults and their associated hanging wall anticlinal folds are the result of active east-northeast directed compression produced by the convergence of the Gorda and Juan de Fuca plates with the North American plate along the CSZ.

The Little Salmon fault zone is the main thrust fault zone in the Eel River and Humboldt Bay region and is located less than 2 miles north of the project site as shown in Figure 12. The Little Salmon fault is the nearest Holocene active fault to the project site and projects offshore in proximity to the Humboldt Bay harbor entrance. Paleoseismic evidence suggests that coseismic displacement on the Little Salmon fault is related to great megathrust earthquakes on the subduction zone. Radiocarbon dating suggests earthquakes have occurred on the Little Salmon fault about 300, 800, and 1,600 years ago. Based on published fault parameters, the maximum moment magnitude earthquake for the Little Salmon fault is reported to be between M_W 7 and M_W 7.3. Displacement on the Little Salmon fault would subject the proposed developments at the project site to very strong ground shaking due to the proximity of the fault to the site.

Other significant seismic sources capable of generating strong ground motion at the project site include the Mendocino fault zone and the northern San Andreas fault. The Mendocino fault zone is an east-west trending right-lateral strike-slip fault that represents the plate boundary between the Pacific plate and southern edge of the Gorda plate. The Mendocino fault zone is the second most frequent source of earthquakes in the region. Historical earthquakes have ranged in magnitude from M_W 5 to M_W 7.5.

The northern San Andreas fault is a right-lateral strike-slip fault that represents the plate boundary between the Pacific and North American plates. The fault traverses Point Delgada at Shelter Cove and terminates at the Mendocino triple junction. The 1906 San Francisco earthquake (M_W 8.3) ruptured the ground surface at Shelter Cove and caused the most significant damage in the North Coast region, with the possible exception of the 1992 Petrolia earthquake.

As discussed under subsection a.i), no known active faults traverse the project site.

The State of California provides minimum standards for building design through the California Building Code (CBC). Where no other building codes apply, CBC Chapter 29 regulates excavation, foundations, and retaining walls. The CBC applies to building design and construction in the State and is based on the federal Uniform Building Code (UBC) used widely throughout the country. The CBC has been modified for California conditions with numerous more detailed and/or more stringent regulations. Specific minimum seismic safety and structural design requirements are set forth in CBC Chapter 16. The Code identifies seismic factors that must be considered in structural design.

Design and construction of the project would incorporate appropriate engineering practices to ensure seismic stability as required by the American Water Works Association (AWWA) Standard D103-09 Factory-Coated Bolted Carbon Steel Tanks for Water Storage or AWWA Standard D100-11 Welded Carbon Steel Tanks for Water Storage as well as the CBC. In addition, the proposed project shall adhere to the recommendations of the Geotechnical Investigation Report relating to the design and construction of the proposed project (SHN, 2020c), which is incorporated as **Mitigation Measure GEO-1** to minimize potential risks from strong seismic ground shaking (SHN, 2020c).

With the implementation of **Mitigation Measure GEO-1** and for the reasons explained above, it has been determined the proposed project will not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. Therefore, the proposed project would result in a less-than-significant impact with mitigation incorporated on this resource category.

a.iii) *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction:* Less Than Significant with Mitigation Incorporated

As noted above in subsection a.ii), there is a high level of seismicity in the north coast region of California. The entire northern California region is subject to the potential for moderate to strong seismic shaking due to local or distant seismic sources. According to the Humboldt County GIS system, the project site is located in an area of low instability with no historic landslides shown and is not within an area of potential liquefaction (Humboldt County, 2021a).

Liquefaction is a soil behavior phenomenon in which soil located below the groundwater table temporarily loses strength during and immediately after a seismic event because of strong earthquake ground motions. Recently deposited sediments (such as, geologically young Holocene age sediments) consisting of relatively loose, saturated, non-cemented granular materials (such as, those present at the project site) are most susceptible. Fine-grained clay-rich soils form the opposite end of the spectrum and are not susceptible to liquefaction.

Liquefaction occurs as seismic shear stresses propagate through a saturated soil and distort the soil structure, causing loosely packed groups of particles to contract or collapse. If drainage is impeded and cannot occur quickly, the collapsing soil structure increases the porewater pressure between the soil grains. When porewater pressures increase to a level approaching the weight of the overlying soil, the granular layer temporarily behaves as a viscous liquid rather than a solid. As strength is lost, there is an increased risk of settlement. Liquefaction-induced settlement occurs as the elevated porewater pressures dissipate and the soil consolidates after the earthquake. In addition to settlement, lateral spreading may occur where a steep embankment borders the edge of a bay or other water body.

The potential for liquefaction to occur at the project site was evaluated in the Geotechnical Investigation Report (SHN, 2020c). Based on the age of the Hookton Formation sediments encountered at the site, the Geotechnical Investigation Report found that the materials are geologically too old and have been subjected to too many past seismic events to undergo further liquefaction. The investigation indicated that the granular soils below the groundwater surface between the depths of about 20 to 40 feet have a relatively low potential of liquefying during the design earthquake. The effects of liquefaction, including seismically-induced settlement and a reduction in bearing capacity due to soil strength loss are discussed below.

The liquefaction potential was evaluated for the maximum considered earthquake (MCE). SHN's quantitative liquefaction analysis indicated that under worst-case conditions, up to 2 inches of post-liquefaction settlement may occur below the groundwater table following the design earthquake hazard level. The differential settlement is estimated to be approximately one-half of the total estimated seismic settlement yielding a maximum of approximately one inch. Settlements of this magnitude may produce minor vertical ground surface displacements. Due to the critical importance of the new developments, SHN recommended that the new tank foundations be supported on a geogrid-reinforced crushed aggregate mat to bridge the surface displacements and mitigate the potential loss of bearing support (SHN, 2020c).

Design and construction of the project would incorporate appropriate engineering practices to ensure seismic stability as required by the AWWA Standard D103-09 Factory-Coated Bolted Carbon Steel Tanks or AWWA Standard D100-11 Welded Carbon Steel Tanks for Water Storage and the CBC. In addition, the proposed project shall adhere to the recommendations of the Geotechnical Investigation relating to the design and construction of the proposed project (SHN, 2020c). This requirement has been included as **Mitigation Measure GEO-1** to minimize potential risks from geologic hazards, including seismic-related ground failure or liquefaction.

With the implementation of **Mitigation Measure GEO-1** and for the reasons explained above, it has been determined the proposed project will not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. Therefore, the proposed project would result in a less-than-significant impact with mitigation incorporated on this resource category.

a.iv) *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides:* Less-Than-Significant Impact

Slope failures, commonly referred to as landslides, include many phenomena that involve the downslope displacement and movement of material, either triggered by static (such as, gravity) or dynamic (such as, earthquake) forces. Earthquake motions can induce significant horizontal and vertical dynamic stresses in slopes that can trigger failure. Earthquake-induced landslides can occur in areas with steep slopes that are susceptible to strong ground motion during an earthquake. The youthful and steep topography of the coast range is known for its potential for landslides.

The location of the proposed new water storage tanks is on original ground that has not been modified by any grading or filling. Slope gradients in and around the proposed new tanks site are relatively gentle and range from about 2 to 5 percent. The proposed water storage tanks will be located on a level pad cut into sloping ground. Natural slope gradients in the descending slope directions are generally less than about 20 percent downslope of the proposed site. The ground surface is characterized by smooth and planar slope morphology with rounded grade breaks and appears to be unaffected by recent shallow or deep-seated slope failures (SHN, 2020c). Slope gradients at the existing tank site and associated access road are up to approximately 8 percent. Slope gradients along Loleta Drive where new water main is proposed are up to approximately 3 to 4 percent. Streamside slope gradients in the drainages where aboveground sections of defunct water main are to be removed are up to approximately 30 percent. According to the Humboldt County GIS system, the project is within an area of low instability with no historic landslides shown (Humboldt County, 2021a).

For the reasons explained above, it has been determined the proposed project will not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. Therefore, the proposed project would result in a less-than-significant impact.

b) *Result in substantial soil erosion or the loss of topsoil?* Less-Than-Significant Impact

The project proposes to remove an existing water storage tank, construct two new replacement tanks, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe using hand tools. The location of the proposed new water storage tanks is on original ground that has not been modified by any grading or filling. Slope gradients in and around the proposed new tanks site are relatively gentle and range from approximately 2 to 5 percent. The proposed water storage tanks will be located on a level pad cut into sloping ground. Natural slope gradients in the descending slope directions are generally less than about 20 percent downslope of the proposed site. Slope gradients at the existing tank site and associated access road are up to approximately 8 percent. Slope gradients along Loleta Drive where new water main is proposed are up to approximately 3 to 4 percent. Streamside slope gradients in the drainages where aboveground sections of defunct water main are to be removed are up to approximately 30 percent.

Due to the proposed grading, trenching, and other ground-disturbing activities, project construction has the potential to cause soil erosion or the loss of topsoil. Construction of the proposed project will be subject to the State Water Resource Control Board (SWRCB) Construction General Permit (CGP). The CGP requires the development of a Stormwater Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer (QSD) and incorporation of BMPs for construction, including site housekeeping practices, erosion control, inspections, maintenance, worker training in pollution prevention measures (see Section X [Hydrology and Water Quality]). Therefore, the risk of soil erosion during construction of the proposed project is minimal.

Based on the information provided above, it has been determined the proposed project will not result in substantial soil erosion or the loss of topsoil. Therefore, the proposed project would result in a less-than-significant 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 on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?* Less Than Significant with Mitigation Incorporated

The location of the proposed new water storage tanks is on original ground that has not been modified by any grading or filling. Slope gradients in and around the proposed new tanks site are relatively gentle and range from approximately 2 to 5 percent (SHN, 2020c). The proposed water storage tanks will be located on a level pad cut into sloping ground. Natural slope gradients in the descending slope directions are generally less than approximately 20 percent downslope of the proposed site. The ground surface is

characterized by smooth and planar slope morphology with rounded grade breaks and appears to be unaffected by recent shallow or deep-seated slope failures. Slope gradients at the existing tank site and associated access road are up to approximately 8 percent. Slope gradients along Loleta Drive where new water main is proposed are up to approximately 3 to 4 percent. Streamside slope gradients in the drainages where aboveground sections of defunct water main are to be removed are up to approximately 30 percent.

Liquefaction is a soil behavior phenomenon in which soil located below the groundwater table temporarily loses strength during and immediately after a seismic event because of strong earthquake ground motions. Recently deposited sediments (such as, geologically young Holocene age sediments) consisting of relatively loose, saturated, non-cemented granular materials (such as, those present at the project site) are most susceptible. Fine-grained clay-rich soils form the opposite end of the spectrum and are not susceptible to liquefaction.

Liquefaction occurs as seismic shear stresses propagate through a saturated soil and distort the soil structure, causing loosely packed groups of particles to contract or collapse. If drainage is impeded and cannot occur quickly, the collapsing soil structure increases the porewater pressure between the soil grains. When porewater pressures increase to a level approaching the weight of the overlying soil, the granular layer temporarily behaves as a viscous liquid rather than a solid. As strength is lost, there is an increased risk of settlement. Liquefaction-induced settlement occurs as the elevated porewater pressures dissipate and the soil consolidates after the earthquake. In addition to settlement, lateral spreading may occur where a steep embankment borders the edge of a bay or other water body.

The potential for liquefaction to occur at the project site was evaluated in the Geotechnical Investigation Report (SHN, 2020c). Based on the age of the Hookton Formation sediments encountered at the site, the Geotechnical Investigation Report found that the materials are geologically too old and have been subjected to too many past seismic events to undergo further liquefaction. The investigation indicated that the granular soils below the groundwater surface between the depths of about 20 to 40 feet have a relatively low potential of liquefying during the design earthquake. The effects of liquefaction, including seismically induced settlement and a reduction in bearing capacity due to soil strength loss are discussed below.

The liquefaction potential was evaluated for the maximum considered earthquake (MCE). SHN's quantitative liquefaction analysis indicated that under worst-case conditions, up to 2 inches of post-liquefaction settlement may occur below the groundwater table following the design earthquake hazard level. The differential settlement is estimated to be approximately one-half of the total estimated seismic settlement yielding a maximum of approximately one inch. Settlements of this magnitude may produce minor vertical ground surface displacements. Due to the critical importance of the new developments, SHN recommended that the new tank foundations be supported on a geogrid-reinforced crushed aggregate mat to bridge the surface displacements and mitigate the potential loss of bearing support (SHN, 2020c).

An analysis of the potential for and magnitude of liquefaction-induced lateral spreading was included in the Geotechnical Investigation Report. The magnitude of lateral spread deformation at the southern edges of the new tank location was estimated to be about one foot or less (SHN, 2020c).

According to the Humboldt County GIS system, the project is within an area of low instability with no historic landslides shown and is not within an area of potential liquefaction (Humboldt County, 2021a).

Design and construction of the project would incorporate appropriate engineering practices to ensure seismic stability as required by the AWWA Standard D103-09 Factory-Coated Bolted Carbon Steel Tanks or AWWA Standard D100-11 Welded Carbon Steel Tanks for Water Storage and the CBC. In addition, the proposed project shall adhere to the recommendations of the Geotechnical Investigation relating to the design and construction of the proposed project (SHN, 2020c). This requirement has been included as **Mitigation Measure GEO-1** to minimize potential risks from geologic hazards, including in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse.

With the implementation of **Mitigation Measure GEO-1** and for the reasons explained above, it has been determined the proposed project will not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse. Therefore, the proposed project would result in a less-than-significant impact with mitigation incorporated on this resource category.

d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?* Less-Than-Significant Impact

Expansive soils are those that undergo large volume changes (shrinking or swelling) due to variations in seasonal moisture content (such as, those that occur following the wet season and during warm summer months). Such volume changes may cause damaging heave of foundations. Fine-grained soils encountered in the upper 50 feet at the proposed new tank site consist of low to medium plasticity lean clay and non-plastic silt. A cursory screening level review of these materials in the laboratory indicated them to be non-expansive with a low shrink/swell potential (SHN, 2020c).

As such, the proposed project will not 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. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

e) *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?* No Impact

The project does not include the placement of a septic tank or alternative disposal system. Therefore, the proposed project would have no impact on this resource category.

f) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?* Less-Than-Significant with Mitigation Incorporated

Paleontological resources are classified as nonrenewable scientific resources, such as vertebrate, invertebrate, and plant fossils. There are no known unique paleontological resources or unique geological features on or near the site. Regional uplifting and other seismic activity in the area have limited the potential for discovery of paleontological resources.

However, ground-disturbing activities associated with construction of the proposed project have the potential to result in the accidental damage of previously undiscovered paleontological resources if such exist at the project site. As such, if a paleontological discovery is made during construction, the contractor shall immediately cease all work activities in the vicinity (within approximately 100 feet) of the discovery and shall immediately contact LCSD. A qualified paleontologist shall be retained by LCSD to observe all subsequent grading and excavation activities in the area of the find and shall salvage fossils as necessary. The paleontologist shall establish procedures for paleontological resource surveillance and shall establish, in cooperation with the project developer, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of fossils. If major paleontological resources are discovered that require temporarily halting or redirecting of grading, the paleontologist shall report such findings to LCSD. The paleontologist shall determine appropriate actions, in cooperation with LCSD, that ensure proper exploration and/or salvage. Excavated finds shall first be offered to a state-designated repository such as the Museum of Paleontology, University of California, Berkeley, or the California Academy of Sciences. Otherwise, the finds shall be offered to LCSD for purposes of public education and interpretive displays. The paleontologist shall submit a follow-up report to LCSD that shall include the period of inspection, an analysis of the fossils found, and the present repository of fossils. To prevent potential impacts to unknown paleontological resources at the project site, the Inadvertent Discovery Protocol described above has been included as **Mitigation Measure GEO-2**.

With the implementation of **Mitigation Measure GEO-2** and based on the information provided above, it has been determined the proposed project will not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Therefore, the proposed project would result in a less-than-significant impact with mitigation incorporated on this resource category.

Mitigation Measures: In order for the proposed project to result in a less-than-significant impact on *Geology and Soils*, the following mitigation measures shall be implemented:

Mitigation Measure GEO-1 (Adhere to Geotechnical Report Recommendations): Adherence to all project specific recommendations of the Geotechnical Investigation Report shall be required during construction of the proposed project.

Mitigation Measure GEO-2 (Inadvertent Discovery Protocol – Paleontological Resources): If a paleontological discovery is made during construction, the contractor shall immediately cease all work activities in the vicinity (within approximately 100 feet) of the discovery and shall immediately contact LCSD. A qualified paleontologist shall be retained by LCSD to observe all subsequent grading and excavation activities in the area of the find and shall salvage fossils as necessary. The paleontologist shall establish procedures for paleontological resource surveillance and shall establish, in cooperation with the project developer, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of fossils. If major paleontological resources are discovered that require temporarily halting or redirecting of grading, the paleontologist shall report such findings to LCSD. The

paleontologist shall determine appropriate actions, in cooperation with LCSD, that ensure proper exploration and/or salvage. Excavated finds shall first be offered to a state-designated repository such as the Museum of Paleontology, University of California, Berkeley, or the California Academy of Sciences. Otherwise, the finds shall be offered to LCSD for purposes of public education and interpretive displays. The paleontologist shall submit a follow-up report to LCSD that shall include the period of inspection, an analysis of the fossils found, and the present repository of fossils.

VIII. GREENHOUSE GAS EMISSIONS: *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?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Setting: The project, located in the unincorporated community of Loleta, proposes to remove an existing water storage tank, construct two new replacement tanks, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe.

Greenhouse gases (GHGs) are gases in the atmosphere that absorb and emit radiation. The greenhouse effect traps heat in the troposphere through a three-fold process, summarized as follows: short wave radiation emitted by the sun is absorbed by the earth; the earth emits a portion of this energy in the form of long wave radiation; and GHGs in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This "trapping" of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect. The main GHGs in the Earth's atmosphere are water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), O_3, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

Global climate change is not confined to a particular project area and is generally accepted as the consequence of GHG emissions from global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough GHG emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact.

Regulatory Setting:

California - GHG Emissions Legislation and Regulations

California passed Assembly Bill 32 (Global Warming Solutions Act) in 2006, mandating a reduction in GHG emissions and Senate Bill 97 in 2007, evaluating and addressing GHG under CEQA. On April 13, 2009, the Governor's Office of Planning and Research (OPR) submitted to the Secretary for Natural Resources its proposed amendments to the State CEQA Guidelines for GHG emissions, as required by Senate Bill 97 (Chapter 185, 2007) and they became effective March 18, 2010. As a result of these revisions to the CEQA Guidelines, lead agencies are obligated to determine whether a project's GHG emissions significantly affect the environment and to impose feasible mitigation to eliminate or substantially lessen any such significant effects. A lead agency is not responsible for wholly eliminating all GHG emissions from a project; the CEQA standard is to mitigate to a level that is "less-than-significant" or, in the case of cumulative impacts, less than cumulatively considerable (SMAQMD, 2018).

The Global Warming Solutions Act (AB 32) also directed California Air Resources Board (CARB) to develop the Climate Change Scoping Plan (Scoping Plan), which outlines a set of actions to achieve the AB 32 goal of reducing GHG emissions to 1990 levels by 2020, and to maintain such reductions thereafter. CARB approved the Scoping Plan in 2008 and first updated it in May 2014. The second update in November 2017 also address the actions necessary to achieve the further GHG emissions reduction goal of reducing GHG emissions to 40 percent below 1990 levels by 2030, as described in Senate Bill 32 (SB 32). In addition, the 2017 Scoping Plan looks forward to the reduction goal of reducing emissions 80 percent under 1990 levels by 2050, as described in Executive Order S-3-05 (EO-S-3-05; CARB, 2017). According to CARB, in 2019, emissions from GHG emitting activities statewide were 418.2 million metric tons of carbon dioxide equivalent (MMTCO2e), 7.2 MMTCO2e lower than 2018 levels and almost 13 MMTCO2e below the 2020 GHG limit of 431 MMTCO2e (CARB, 2021c).

CEQA Guidelines – Significance Thresholds

Section 15064.4 of the CEQA guidelines specifies how the significance of impacts from GHG emissions is to be determined. The Lead Agency is to make a good faith effort to describe, calculate, or estimate the amount of GHG emissions that will result from a project. The Lead Agency is also to consider the following factors when accessing the impacts of the GHG emissions on the environment:

1. Extent to which the project may increase or reduce GHG emissions, relative to the existing environmental setting.

2. Whether the project emissions exceed a threshold of significance that the Lead Agency determines applies to the project.

3. Extent to which the project complies with regulations adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

The project site is located in the North Coast Air Basin (NCAB) and is under the jurisdiction of the North Coast Unified Air Quality Management District (NCUAQMD). Neither Humboldt County nor the NCUAQMD have adopted quantitative thresholds for determining the significance of GHG emissions from land use projects in environmental documents. In addition, as discussed below, Humboldt County does not have an adopted Climate Action Plan or GHG Reduction Plan. In 2011, the NCUAQMD adopted Rule 111 (Federal Permitting Requirements for Sources of Greenhouse Gases) to establish a threshold above which New Source Review and federal Title V permitting apply, and to establish federally-enforceable limits on the potential to emit GHGs for stationary sources. For reference, Sections D(1)(a) and D(1)(b) of Rule 111 have applicability thresholds of 75,000 metric tons of carbon dioxide equivalent per year (MTCO2e/yr) and 100,000 MTCO2e/yr (NCUAQMD, 2015). These are requirements applicable to stationary sources and are not recommended as a threshold of significance for use in CEQA documents. In the absence of quantitative thresholds, a Climate Action Plan, or a GHG Reduction Plan applicable to the proposed project, environmental practitioners often use the thresholds and guidance adopted by other air districts in the State.

In the NCAB, the closest air district to the proposed project that has adopted GHG significance thresholds is the Mendocino Air Quality Management District (MCAQMD, 2010). MCAQMD has adopted an operational emissions threshold of 1,100 metric tons of CO2e per year (MTCO2e/yr; MCAQMD, 2010). This threshold is also recommended for use by the Bay Area Air Quality Management District (BAAQMD, 2017) and the Sacramento Metropolitan Air Quality Management District (SMAQMD, 2020). The SMAQMD also recommends use of this threshold for analyzing GHG emissions from construction activity. This threshold was developed to ensure at least 90 percent of new GHG emissions would be reviewed and assessed for mitigation, thereby contributing to GHG emissions reduction goals of AB 32, SB 32, the Scoping Plan, and Executive Orders (SMAQMD, 2018). As such, this threshold has been adopted for use in the NCAB and is one of the most used thresholds in the State for analyzing the potential impacts of construction and operational GHG emissions. For the reasons noted above, the threshold of 1,100 MTCO2e/yr is used to evaluate the proposed project's construction and operational GHG emissions. If the threshold is exceeded, then the project would have a cumulatively considerable contribution to a significant cumulative environmental impact and would conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing GHG emissions.

Humboldt County Draft Climate Action Plan

In January 2012, as part of the General Plan Update, Humboldt County prepared a Draft Climate Action Plan (CAP) to reduce GHG emissions in the unincorporated County (Humboldt County, 2012). The Plan contains GHG reduction strategies designed to achieve the target of reducing GHG emissions to 1990 emissions levels by 2020. The 2012 Draft CAP also set an additional target to achieve no net increase of GHG emissions compared to building-as-usual emissions from the 1984 General Plan for new residential development within the County by the year 2025. To comply with SB 32, the County is in the process of preparing county-wide GHG emissions targets for the year 2030 (and possibly also 2040) as part of a Regional Climate Action Plan that will incorporate an updated 1990 GHG Inventory.

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?* Less-Than-Significant Impact

The project proposes to remove an existing water storage tank, construct two new replacement tanks, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe. Any GHG emissions currently being emitted by operation of the existing water system would be considered part of the existing baseline conditions. Because the proposed project would not increase the amount of water treated or used, it would not result in any significant increases in operational GHG emissions. The proposed project would generate both direct and indirect GHG emissions. Direct GHG emissions include emissions from construction activities, area sources, and mobile (vehicle) sources. Indirect GHG emissions include emissions from energy consumption, solid waste, and water demand.

Both construction and operational GHG emissions for the proposed project were estimated using the California Emissions Estimator Model (CalEEMod; CAPCOA, 2020), which is a statewide land use emissions computer model designed to provide a uniform platform for government agencies to quantify potential criteria pollutant emissions associated with both construction and operation of a variety of land use projects. The model applies inherent default values for various land uses, including trip generation rates based on the Institute of Transportation Engineers (ITE) Manual, vehicle mix, trip length, average speed, etc. However, where project-specific data is available, such data should be input into the model. Project-specific information input into the model was derived from project description at the beginning of this document, from the Preliminary Engineering Report (SHN, 2021), and from

supplemental information provided by the project engineer related to the size of proposed structures and equipment, area of grading and site preparation, equipment that will be used for construction, number of days for each construction activity, the quantity of materials that will be imported and exported, and information on the proposed standby generator. Otherwise, where project-specific information was not available, the model default values were used for estimating emissions from the project.

Table 4 presents the estimates of unmitigated annual GHG emissions from construction and operation of the proposed project as compared to the 1,100 MTCO2e/yr threshold of significance.

Table 4: Annual GHG Emissions (Unmitigated)

Project Phase	GHG Emissions (MTCO2e/yr)	Threshold of Significance (MTCO2e/yr)	Significant Impact?
Construction	42.1	1,100	No
Operation	28.3	1,100	No

Source: CAPCOA, 2020; MCAQMD, 2010; BAAQMD, 2017; SMAQMD, 2020

As shown in Table 4, the construction and operational GHG emissions from the proposed project are well below the threshold of significance. Therefore, the proposed project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment. Therefore, the proposed project would result in a less than significant on this resource category.

b) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?* Less-Than-Significant Impact

The project proposes to remove an existing water storage tank, construct two new replacement tanks, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe. The proposed project would result in GHG emissions from construction and operation. A GHG impact would be significant if the project would conflict with an applicable plan, policy, or regulation for the purpose of reducing GHG emissions. As noted in the setting, a CAP that is consistent with SB 32 has not yet been adopted by Humboldt County.

The proposed project is subject to myriad State and local regulations applicable to project design, construction, and operation that would reduce GHG emissions, increase energy efficiency, and provide compliance with the CARB Climate Change Scoping Plan (CARB, 2017). The State of California has the most comprehensive GHG regulatory requirements in the United States, with laws and regulations requiring reductions that affect project emissions. Legal mandates to reduce GHG emissions from vehicles, for example, reduce project-related vehicular emissions. Legal mandates to reduce per capita water consumption and impose waste management standards to reduce methane and other GHGs from solid wastes are all examples of mandates that reduce GHGs. It is noted that according to CARB, in 2019, emissions from GHG-emitting activities statewide were 418.2 MMTCO2e, 7.2 MMTCO2e lower than 2018 levels and almost 13 MMTCO2e below the 2020 GHG limit of 431 MMTCO2e (CARB, 2021c).

As discussed above under subsection a), GHG emissions from the proposed project's construction and operational activity are well below the threshold of significance of 1,100 MTCO2e/yr that is used by several air districts in the state to determine the significance of impacts from GHG emissions. As such, construction and operational emissions from the proposed project would be less-than-significant and would not conflict with any plans policies, or regulations related to GHG emissions.

Additionally, the project would replace the existing redwood tank that leaks approximately 10,000 gallons of water per day (a loss rate of 20%-24%) with new water tanks that do not leak. The reduction in water system losses associated with replacing the leaking tank represent a substantial reduction in the existing waste of energy for pumping water (as well as energy used during water treatment) and would reduce indirect GHG emissions generated by electricity consumption during project operation.

Therefore, the proposed project as designed and in compliance with existing laws and regulations, would not generate GHG emissions that would conflict with an applicable plan, policy, or regulation for the purpose of reducing GHG emissions. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

Mitigation Measures: No mitigation measures are required for the project to result in a less-than-significant impact to *Greenhouse Gas Emissions.*

IX. HAZARDS AND HAZARDOUS MATERIALS: *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?			X	
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?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?		X		
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?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project site?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?			X	

Setting: The project proposes to remove an existing water storage tank (approximately 44 feet in diameter and 20 feet in height), construct two new replacement tanks (each approximately 40 feet in diameter and 25-30 feet in height), construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe using hand tools.

Hazards are those physical safety factors that can cause injury or death, and while by themselves in isolation may not pose a significant safety hazard to the public, when combined with development of projects, they can exacerbate hazardous conditions. Hazardous materials are typically chemicals or processes that are used or generated by a project that could pose harm to people, either working at the site or in adjacent areas. Many of these chemicals can cause hazardous conditions to occur should they be improperly disposed of or accidentally spilled as part of project development or operations. Hazardous materials are also those listed as hazardous pursuant to Government Code Section 65962.5.

The California Department of Toxic Substances Control (DTSC) maintains a list of hazardous substances and contaminated sites around the State as part of its Envirostor database. According to DTSC, the project site is not identified as containing hazardous materials contamination or the storage of hazardous materials (DTSC, 2021). The SWRCB maintains a list of leaking underground storage tank (LUST) sites and other cleanup sites around the State as part of its Geotracker database. According to the SWRCB, the project site is not identified as a LUST site or other cleanup site (SWRCB, 2021).

Land uses that are considered sensitive receptors typically include residences, schools, parks, childcare centers, hospitals, convalescent homes, and retirement homes. Sensitive receptors (for example, children, senior citizens, and acutely or chronically ill people) are more susceptible to the effect of air pollution than the general population. The nearest known potential sensitive receptor to the proposed project is the Thomas Carr Park – Firefighters Pavilion (>200 feet). Other sensitive receptors in the vicinity of the proposed project include, but are not limited to, residence to the south of Loleta Drive (>550 feet), Loleta Grammar School (>600 feet), residences to the north of Loleta Drive (>800 feet), and residences to the southwest of the existing tank (>1,000 feet).

The Humboldt County Public Works Department operates six county airports. Airports nearest the project site include the Rohnerville Airport (13 miles), Samoa Field Airport (18 miles), and the Kneeland Airport (31 miles). The proposed project site and surrounding area are characterized by features typical of an agricultural and rural residential landscape.

Loleta Fire Protection District (FPD) is responsible for providing structural fire protection services, through the Loleta Volunteer Fire Department, to the town of Loleta and surrounding lands. The Loleta FPD operates one fire station, located on Park Street, which is centrally located in downtown Loleta. Although the District is responsible for structural fire protection, the project is also located within a State Responsibility Area (SRA) and the California Department of Forestry and Fire Protection (CDF) retains responsibility for grass and forest fires within the boundaries of the District (CALFIRE, 2021a). The District does have a mutual aid agreement with CDF as well as other adjacent fire protection agencies (LAFCO, 2008).

CALFIRE designates lands in three general classifications, "Moderate", "High" and "Very High" Fire Hazard Severity Zones (FHSZs). CALFIRE assigns FHSZs based on existing vegetation, topography, weather, crown fire potential, ember production and movement, and the likelihood of a site to burn over a 30 to 50-year time period. CALFIRE delineates the project site as part of a designated "Moderate" FHSZ (CALFIRE, 2021b).

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?* Less-Than-Significant Impact

The project proposes to remove an existing water storage tank, construct two new replacement tanks, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe using hand tools. Regarding operations, the proposed project would alter the location of LCSD's water storage and conveyance infrastructure but would not change the type of ongoing operations.

Construction

Construction of the project would require the temporary use and transport of paints, fuels, oils, solvents, and other chemicals used during construction activities. Improper use and transportation of hazardous materials could result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. These activities are controlled by state and federal regulations. Throughout the transport, use, or disposal of potentially hazardous materials, the contractor is required to employ standard cleanup and safety procedures to minimize the potential for public exposure from accidental releases of such substances into the environment. Additionally, construction activities at the project site would require implementation of a SWPPP that would incorporate BMPs for construction, including site housekeeping practices, hazardous material storage, inspections, maintenance, worker training in pollution prevention measures, and secondary containment of releases to prevent pollutants from being carried offsite via runoff. These measures will reduce the risk of transporting, using, and disposing of hazardous construction materials.

Operation

During the operation of the proposed project, maintenance, cleaning, and landscaping products may be stored and used at the project site that contain toxic substances (for example, paints, solvents, pesticides, fertilizers, and cleaning products). However, the use of these products is part of the baseline condition, as they are periodically used in association with existing operations at the existing water tank site. These products are typically low in concentration and used in small quantities that would not pose a significant risk to humans or the environment during transport and use at the project site. Furthermore, these products will be used in adherence to warning labels and storage recommendations from the individual manufacturers.

Based on the information provided above, it has been determined the proposed project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

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 project proposes to remove an existing water storage tank, construct two new replacement tanks, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe using hand tools. Regarding operations, the proposed project would alter the location of LCSD's water storage and conveyance infrastructure but would not change the type of ongoing operations.

Construction

As noted above, construction of the project would require the temporary use and transport of paints, fuels, oils, solvents, and other chemicals used during construction activities. Improper use and transportation of hazardous materials could result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. These activities are controlled by state

and federal regulations. Throughout the transport, use, or disposal of potentially hazardous materials, the contractor is required to employ standard cleanup and safety procedures to minimize the potential for public exposure from upset and accident conditions involving the release of hazardous materials into the environment. Additionally, construction activities at the project site would require implementation of a SWPPP that would incorporate BMPs for construction, including site housekeeping practices, hazardous material storage, inspections, maintenance, worker training in pollution prevention measures, and secondary containment of releases to prevent pollutants from being carried offsite via runoff. With appropriate storage, handling, and application practices, it is unlikely that any hazardous materials used during construction activity would be released in a manner that would create a significant hazard to the public or the environment.

Operation

As previously noted, the proposed project would alter the location of LCSD's water storage and conveyance infrastructure but would not change the type of ongoing operations. Operation of the proposed project will require the storage and use of maintenance, cleaning, and landscaping products that contain toxic substances (for example, paints, solvents, pesticides, fertilizers, and cleaning products). However, the use of these products is part of the baseline condition, as they are periodically used in association with existing operations at the existing water tank site. These products are typically low in concentration and used in small quantities that would not pose a significant risk to humans or the environment during use at the project site. Furthermore, these products will be used in adherence to warning labels and storage recommendations from the individual manufacturers to reduce the risk of upset and accident conditions. With appropriate storage, handling, and application practices, it is unlikely that any hazardous materials used during operation of the project would be released in a manner that would create a significant hazard to the public or the environment.

For the reasons explained above, it has been determined that the proposed project will not 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. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

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 with Mitigation Incorporated

Loleta Grammar School is located approximately one-quarter mile west of the project.

Construction

As discussed in Section III (Air Quality), a short-term increase in fugitive dust emissions is anticipated during the project construction phase. To reduce impacts to less-than-significant, several dust control measures will be required during construction of the proposed project as outlined in **Mitigation Measure AQ-1**. With the implementation of these dust control measures, fugitive dust emissions would not significantly impact schools within one-quarter mile of the project site.

As discussed in Section III (Air Quality), asbestos-containing materials and/or lead-based materials may be present within the existing water tank at the site proposed for demolition. The demolition of this structure shall comply with federal and state regulations for the removal, handling, and disposal of asbestos-containing and/or lead-based materials. Compliance with existing regulatory requirements will reduce the risks associated with demolishing structure(s) containing these materials to less-than-significant levels and would not pose a substantial risk to schools within one-quarter mile of the project site.

Operation

As previously noted, the proposed project would not change the type of ongoing operations at the site. Operation of the proposed project will require the storage and use of maintenance, cleaning, and landscaping products that contain toxic substances (for example, paints, solvents, pesticides, fertilizers, and cleaning products). These products are typically low in concentration and used in small quantities that would not pose a significant risk to humans or the environment during use at the project site. Furthermore, these products will be used in adherence to warning labels and storage recommendations from the individual manufacturers. With appropriate storage, handling, and application practices, it is unlikely that any hazardous materials used during operation of the project would pose a substantial risk to schools within one-quarter mile of the project site.

For the reasons explained above, it has been determined the proposed project will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

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

The State's Hazardous Waste and Substances Sites List (Cortese List, Government Code Section 65962.5) identifies sites with leaking underground fuel tanks, hazardous waste facilities subject to corrective actions, solid waste disposal facilities from which there is a known migration of hazardous waste, and other sites where environmental releases have occurred. According to review of the information available on the SWRCB Geotracker and the DTSC Envirostor websites, the project site is not identified as containing hazardous materials contamination or the storage of hazardous materials (DTSC, 2021) and is not identified as containing a leaking underground storage tank site or another cleanup site (SWRCB, 2021). There are no other known sites containing hazardous materials contamination in the project area that would have the potential to impact the project site.

For the reasons explained above, it has been determined the proposed project will not 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 create a significant hazard to the public or the environment. Therefore, the proposed project will have no impact on this resource category.

e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project site?* No Impact

The project site is not located within an airport land use plan or within two miles of a public airport or public use airport. Public airports nearest the project site include the Rohnerville Airport (13 miles), Samoa Field Airport (18 miles), and the Kneeland Airport (31 miles).

For the reasons explained above, it has been determined the proposed project will not result in a safety hazard or excessive noise from an airport for people residing or working in the project site. Therefore, the proposed project will have no impact on this resource category.

f) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?* Less-Than-Significant Impact

The project proposes improvement of the community of Loleta's water system. This type of project is not of the nature to substantially impact emergency response or evacuation.

The existing water storage tank is accessed from the US Highway 101 Southbound onramp from Loleta Drive (Figure 3). LCSD has an encroachment permit from Caltrans to access the tank. A permanent easement also runs along the eastern private property boundary of APN 309-042-030, allowing LCSD staff to access the tank for operation and maintenance. Caltrans determined that LCSD obtaining an encroachment permit to replace the existing tank at the existing site and authorizing continued long-term use is very unlikely. However, Caltrans indicated that obtaining an encroachment permit for tank removal is likely. The project proposes to remove the existing water storage tank (which is only accessible from the US Highway 101 Southbound onramp) and construct two new replacement tanks at a new location accessed directly from Loleta Drive. The new tank location will be more easily accessible than the existing tank location since it will be accessible directly from Loleta Drive. The proposed new tanks site will be designed to meet emergency access standards and accommodate the onsite maneuvering of emergency vehicles. As such, the proposed project will provide improved emergency access to the project site compared to existing conditions.

For the reasons explained above, the proposed project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

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

As noted in the Hazards and Hazardous Materials Setting, CALFIRE delineates the project site as part of a designated "Moderate" FHSZ (CALFIRE, 2021b). As discussed in Section XX (Wildfire), the proposed project is not of the nature to exacerbate or expose people/structures to wildland fires. As such, the proposed project will not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

Mitigation Measures: The following mitigation measure has been required in the *Air Quality* section of this document, so that when implemented, the proposed project will have a less significant impact to *Hazards and Hazardous Materials*:

Mitigation Measure AQ-1 (Fugitive Dust Control Measures)

X. HYDROLOGY AND WATER QUALITY: *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 ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c.i) Substantially alter the existing drainage pattern of the site or area, through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or offsite?			X	
c.ii) Substantially alter the existing drainage pattern of the site or area, through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding or- or offsite?			X	
c.iii) Substantially alter the existing drainage pattern of the site or area, through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
c.iv) Substantially alter the existing drainage pattern of the site or area, through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would Create or contribute runoff which would Impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

Setting: The project, located in the unincorporated community of Loleta, proposes to remove an existing water storage tank, construct two new replacement tanks, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe. The project site is 5 miles east of the Pacific Ocean and 3.5 miles south of Humboldt Bay (Figures 1 and 2). The project site is situated between approximately 100- and 240-foot elevation above mean sea level, with the highest elevations represented at the Loleta Drive interchange above the new tanks location, dropping to approximately 200 feet at the existing tank location, and 100 feet at the lowest pipe stream crossing (Figures 2 and 3). The site is primarily located on a broad, dissected gently to steeply sloping, uplifted marine terrace known as Table Bluff, with slopes between 2 and 30 percent in the project area.

Slope gradients in and around the proposed new tanks site are relatively gentle and range from about 2 to 5 percent with a south to southwest slope aspect. Slope gradients at the existing tank site and associated access road are up to approximately 8 percent. Slope gradients along Loleta Drive where the new water main would be constructed are up to approximately 3 to 4 percent. Streamside slope gradients in the drainages where aboveground sections of defunct water main are to be removed are up to approximately 30 percent.

The project site is located in the Eel River Hydrologic Unit, Salt River-Eel River Watershed, and North Coast Region. The North Coast Regional Water Quality Control Board (NCRWQCB) adopts and implements the Water Quality Control Plan (Basin Plan) for the North Coast Region, which identifies beneficial uses and recognizes water quality problems unique to the region.

The project site is located in the Eel River Groundwater Basin (Basin No. 1-10). The approximately 73,700-acre groundwater basin is bounded to the north by the Little Salmon Fault, to the south by the Plio-Pleistocene Carlotta Formation, and to the east by the Wildcat

series, while the extent of the eastern boundary is uncertain (Department of Water Resources [DWR], 2004). The DWR has ranked the Eel River Groundwater Basin as a "Medium" priority basin required to develop a groundwater sustainability plan (DWR, 2020). In October 2021, Humboldt County Department of Public Works circulated a Notice of Intent to Adopt the Eel River Valley Groundwater Sustainability Plan (Humboldt County, 2021b). It notified municipal water suppliers in the Eel River Valley Groundwater Basin (including LCSD) that in accordance with California Water Code Section 10728.4, the Humboldt County Groundwater Sustainability Agency (Humboldt County GSA) provides notice of intent to adopt a Groundwater Sustainability Plan (GSP) for the Eel River Valley groundwater basin (Basin No. 1-010) for compliance with the Sustainable Groundwater Management Act.

Flood zones are geographic areas that the Federal Emergency Management Agency (FEMA) has defined according to varying levels of flood risk. These zones are depicted on a community's Flood Insurance Rate Map (FIRM). Each flood zone reflects the anticipated type of flooding in the area. According to FIRM Panel 06023C1015G, the project site is located in an area of minimal flood hazard, (Zone X; FEMA, 2021).

The project area contains a predominantly west aspect, resulting in westward surface water flow of unnamed tributaries to the Eel River. The mouth of the Eel River is approximately 4.5 river-miles west of the project location. Ravines cross the project area in several locations, representing remnant habitat within the agricultural lands and development.

A Wetland and Other Waters Delineation Report was completed for the project by SHN (SHN, 2020b) which documents existing wetlands and other waters of the United States and State at the project site. The wetland delineation mapped jurisdictional waters as defined by the United States Army Corps of Engineers (USACE) three-parameter methods, as well as the one-parameter wetland definition used for the California Coastal Commission (CCC) and the Eel River Area Plan. Additionally, ordinary high water mark features were delineated within onsite drainages according to USACE methodology. The results and test pit locations are presented in Figure 11.

At TP2-7, a three-parameter wetland was documented starting approximately 60 feet west of (downslope of) the existing tank, which represents a wetland slope with spring water weeping down the hillside into the intermittent stream located below (Figure 11). Three parameters were met at this test pit, so it is considered both a USACE and CCC wetland site.

TPS1-4 represents a small (135 sf) two-parameter area collecting enough water that it displays both hydrophytic vegetation dominance and hydric soils development. This meets the criteria for a CCC wetland site. It is located in a slight swale along the eastern edge of the existing access road just north of the gate at the existing water tank landing (Figure 11), where water from the surrounding area could collect for short durations during the wet season.

TPS1-2 represents an area with historical and continual anthropogenic influence and was classified as an anthropogenic landscape feature (non-jurisdictional). This area lies in the shade near the southwestern side of the existing leaking water tank (Figure 11). The flat topography created by the landing excavated into the hillside to seat the water tank reduces water runoff and encourages ponding. Also, LCSD's general manager confirmed that the District has been losing approximately 10,000 gallons per day from the leaking tank (Drumm, 2020). No hydric soil or wetland hydrology indicators were observed. Only the vegetation parameter was met, so this TP and associated area was not considered a USACE wetland site. With only one parameter (vegetation) at TPS1-2, attributed to constant leaking from the aging existing redwood water tank, this location was not considered a Coastal Act wetland either.

An OHWM was documented along the two intermittent stream channels where existing aboveground water pipe crossings occur. These OHWM transects were located adjacent to three-parameter wetlands, with the TP2-7 wetland associated with OHWM #1 and the TP2-9 wetland associated with OHWM #2 (Figure 11). OHWM #1 is located approximately 200 feet downhill (west) of the existing water tank. The stream channel is 18 inches wide at OHWM #1. OHWM #2 is approximately 1,100 feet west northwest of OHWM #1. The stream channel at OHWM #2 is approximately 3.5 feet wide.

TP2-2 and TP2-4 along Loleta Drive represent two mud puddles formed by vehicles in areas used for motor vehicle parking and turnarounds. These mud puddle features included a small three-parameter feature at TP2-2 and a one-parameter feature at TP2- 4 (Figure 11). As anthropogenic features associated with the roadway, these two sites were called out and described as anthropogenic landscape features but were excluded from being classified as wetlands. The remainder of the project area represents well- to somewhat well-drained soil with moderately strong soil structure and undisturbed plant root growth (SHN, 2020b).

No constructed stormwater system or wastewater system exists at the project location.

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

a) *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?* Less-Than-Significant Impact with Mitigation Incorporated

The surface water features on the project site include the two intermittent stream channels where existing aboveground water pipe crossings occur, which ultimately drain towards the Eel River. There are also several wetland areas, as described in the Setting. Water quality in the Eel River watershed is influenced by stormwater runoff from a variety of land uses in the Loleta area. Eel River is listed as impaired for aluminum, dissolved oxygen, sedimentation/siltation, and water temperature.

Construction

Construction activities will include site preparation, grading, tank construction, trenching, paving, demolition, aboveground pipe removal, and revegetation, which has the potential to result in water quality pollutants such as silt, debris, chemicals, paints, and other solvents. The release of such pollutants would adversely affect water quality. In addition, stormwater discharge may include debris, particulate, and petroleum hydrocarbons as a result of improper storage of construction materials, improper disposal of construction wastes, discharges resulting from construction dewatering activities, and spilled petroleum products. As such, short-term water quality impacts have the potential to occur during construction of the proposed project in the absence of any protective and avoidance measures.

However, the project description includes various best management practices and avoidance and minimization measures (Section 2.2 – Proposed Project), and protective and avoidance measures shall be implemented during construction of the proposed project pursuant to the requirements of the SWRCB CGP. A CGP is required for all projects that include construction activities and/or excavation that would disturb at least one acre of total land area. The SWRCB CGP will require the preparation of a SWPPP which documents the stormwater dynamics at the site, the BMPs and water quality protection measures that are used, and the frequency of inspections. BMPs are activities or measures determined to be practicable, acceptable to the public, and cost effective in preventing water pollution or reducing the amount of pollution generated by non-point sources. Implementation of the SWPPP will ensure that water quality is protected during construction activities. Adherence to the SWRCB regulatory requirements of the CGP shall ensure construction of the proposed project will not result in substantial degradation of surface or ground water quality.

Operation

The proposed project would alter the location of and improve LCSD's water storage and conveyance infrastructure but would not change the type of ongoing operations nor increase the water service area, water withdrawals, or water entitlements. Development of the new tanks site would include an energy dissipator for the tank drain and overflow pipe (Figure 5) and would be designed for appropriate stormwater drainage. The proposed project would not involve the use of septic systems or alternative wastewater disposal systems, nor would it affect the community's wastewater collection, treatment, and disposal systems.

The proposed project will result in a small increase in impervious surface area associated with tank removal and replacement. One approximately 44-foot diameter water tank will be removed, and two 40-foot diameter water tanks will be constructed, resulting in an increase of approximately 1,300 sf of impervious surface area. The associated small increase in stormwater runoff is anticipated to be much less than the existing 10,000 gallons per day non-stormwater runoff from the leaking existing tank. The existing water tank would be demolished which would end the existing 10,000 gallons per day leak, thereby improving water quality in the drainage by reducing sedimentation/siltation.

During the operation of the proposed project, maintenance, cleaning, and landscaping products may be stored and used at the project site that contain toxic substances (for example, paints, solvents, pesticides, fertilizers, and cleaning products). However, the use of these products is part of the baseline condition, as they are periodically used in association with existing operations at the existing water tank site. These products are typically low in concentration and used in small quantities that would not pose a significant risk to humans or the environment during transport and use at the project site. Furthermore, these products will be used in adherence to warning labels and storage recommendations from the individual manufacturers.

In compliance with the CGP, implementation of a SWPPP and BMPs, the proposed project will not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

b) *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?* Less-Than-Significant Impact

The proposed project will result in a small (1,300 sf) increase in impervious surface area with the removal of one 44-foot diameter water tank and the construction of two 40-foot diameter water tanks. This has little to no potential to alter existing groundwater recharge patterns.

Although DWR has ranked the Eel River Groundwater Basin as a "Medium" priority basin required to develop a groundwater sustainability plan (DWR, 2020), the project will not change the type of ongoing operations nor increase the water service area, water withdrawals, or water entitlements.

As such, the proposed project will not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

c.i) *Substantially alter the existing drainage pattern of the site or area, through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or offsite?* Less-Than-Significant Impact

The proposed project does not propose an alteration of the course of a stream or river. The total project footprint is approximately 1.8 acres in size and construction of the proposed project would require grading, trenching, and stockpiling of cut/fill material. Because the proposed project requires the ground disturbance of more than one acre, proposed construction activities will require compliance with the SWRCB CGP. The CGP requires the development of a SWPPP by a certified QSD and incorporate current BMPs for construction and erosion control. In compliance with the CGP and implementation of a SWPPP and BMPs, the proposed project will not substantially alter the existing drainage pattern of the site in a manner that would result in substantial erosion or siltation on- or off-site, during construction or operation. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

c.ii) *Substantially alter the existing drainage pattern of the site or area, through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?* Less-Than-Significant Impact

The proposed project does not propose an alteration of the course of a stream or river. The proposed project will result in a small (1,300 sf) increase in impervious surface area with the removal of one 44-foot diameter water tank and the construction of two 40-foot diameter water tanks, which has the potential to increase the rate or amount of surface runoff. However, the associated small increase in stormwater runoff is anticipated to be much less than the existing 10,000 gallons per day non-stormwater runoff from the leaking existing tank. The existing water tank would be demolished, which would end the existing 10,000 gallons per day leak, thereby reducing the rate and amount of surface runoff. As such, the proposed project will not substantially alter the existing drainage pattern of the site in a manner that would result in flooding on- or off-site. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

c.iii) *Substantially alter the existing drainage pattern of the site or area, through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would 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;* Less-Than-Significant Impact

The proposed project does not propose an alteration of the course of a stream or river. The proposed project will result in a small (1,300 sf) increase in impervious surface area with the removal of one 44-foot diameter water tank and the construction of two 40-foot diameter water tanks, which has the potential to increase the rate or amount of surface runoff. However, the associated small increase in stormwater runoff is anticipated to be much less than the existing 10,000 gallons per day non-stormwater runoff from the leaking existing tank. The existing water tank would be demolished which would end the existing 10,000 gallons per day leak, thereby reducing the rate and amount of surface runoff. No constructed stormwater system exists at the project location and the project does not propose connections to existing stormwater drainage systems. As such, the proposed project will not substantially alter the existing drainage pattern of the site in a manner that would create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

c.iv) *Substantially alter the existing drainage pattern of the site or area, through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff which would impede or redirect flood flows?* Less-Than-Significant Impact

The proposed project does not propose an alteration of the course of a stream or river. According to FIRM Panel 06023C1015G, the project site is located in an area of minimal flood hazard, (Zone X; FEMA, 2021). In addition, the project proposes very few structures that would have the potential to alter flood flows (two new 40-foot diameter water storage tanks). Therefore, the potential for the proposed project to impede or redirect flood flows is negligible. The proposed project will result in a small (1,300

sf) increase in impervious surface area with the removal of one 44-foot diameter water tank and the construction of two 40-foot diameter water tanks, which has the potential to increase the rate or amount of surface runoff. However, the associated small increase in stormwater runoff is anticipated to be much less than the existing 10,000 gallons per day non-stormwater runoff from the leaking existing tank. The existing water tank would be demolished which would end the existing 10,000 gallons per day leak, thereby reducing the rate and amount of surface runoff. Although the project would result in a small (1,300 sf) increase in impervious surface area, the removal of the existing tank and associated 10,000 gallon per day leak would ensure that post-construction runoff will be less than pre-construction runoff.

For the reasons explained above, it has been determined the proposed project will not substantially alter the existing drainage pattern of the site or area, through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff which would Impede or redirect flood flows. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

d) *In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?* No Impact

According to FIRM Panel 06023C1015G, the project site is located in an area of minimal flood hazard, (Zone X; FEMA, 2021). FEMA defines Zone X as an area subject to inundation by the 0.2 percent annual chance (or 500-year) flood event. Therefore, the project site is not located within a 100-year flood hazard area.

Due to the known seismic activity in the Pacific Rim, a tsunami or seiche could impact the Eel River valley or Humboldt Bay. However, the California Geological Survey (CGS) Tsunami Hazard Area Map identifies the project location as being outside of the designated tsunami hazard area. The nearest designated tsunami hazard area is located over one-half mile west of the project site. In addition, the project site is 5 miles east of the Pacific Ocean and 3.5 miles south of Humboldt Bay (Figure 1) and is situated between approximately 100 to 240 feet above mean sea level. Therefore, the project site is not located within a tsunami or seiche zone (CGS, 2021).

For the reasons explained above, it has been determined the proposed project will not be located in a flood hazard, tsunami, or seiche zones, and will not risk release of pollutants due to project inundation. Therefore, the proposed project would have no impact on this resource category.

e) *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?* Less-Than-Significant Impact

Water Quality Control Plan

The project site is located in the Eel River Hydrologic Unit, Salt River-Eel River Watershed, and North Coast Region. The NCRWQCB adopts and implements the Water Quality Control Plan (Basin Plan) for the North Coast Region, which identifies beneficial uses and recognizes water quality problems unique to the region. Eel River is listed as impaired for aluminum, dissolved oxygen, sedimentation/siltation, and water temperature.

Construction of the proposed project requires site preparation, grading, tank construction, trenching, paving, demolition, aboveground pipe removal, and revegetation. Due to the extent of ground-disturbing activities (up to approximately 1.5 acres), construction of the proposed project will require compliance with the SWRCB CGP. Compliance with the CGP will require development and implementation of a SWPPP that would incorporate current BMPs for construction, including site housekeeping practices, erosion control, hazardous material storage, inspections, maintenance, worker training in pollution prevention measures, and secondary containment of releases to prevent pollutants from being carried offsite via runoff.

The proposed project would alter the location of LCSD's water storage and conveyance infrastructure but would not change the type of ongoing operations nor increase the water service area, water withdrawals, or water entitlements. Development of the new tanks site would include an energy dissipator for the tank drain and overflow pipe (Figure 5) and would be designed for appropriate stormwater drainage. The proposed project would not involve the use of septic systems or alternative wastewater disposal systems, nor would it affect the community's wastewater collection, treatment, and disposal systems.

The proposed project will result in a small increase in impervious surface area associated with tank removal and replacement. One approximately 44-foot diameter water tank will be removed, and two 40-foot diameter water tanks will be constructed, resulting in an increase of approximately 1,300 sf of impervious surface area. The associated small increase in stormwater runoff is anticipated to be much less than the existing 10,000 gallons per day non-stormwater runoff from the leaking existing tank. The existing water tank would be demolished which would end the existing 10,000 gallons per day leak, thereby improving water quality in the drainage by reducing sedimentation/siltation.

Sustainable Groundwater Management Plan

The DWR has ranked the Eel River Groundwater Basin as a "Medium" priority basin required to develop a groundwater sustainability plan (DWR, 2020). In October 2021, Humboldt County Department of Public Works circulated a Notice of Intent to Adopt the Eel River Valley Groundwater Sustainability Plan (Humboldt County, 2021b). It notified municipal water suppliers in the Eel River Valley Groundwater Basin (including LCSD) that in accordance with California Water Code Section 10728.4, the Humboldt County GSA provides notice of intent to adopt a GSP for the Eel River Valley groundwater basin (Basin No. 1-010) for compliance with the Sustainable Groundwater Management Act. As discussed under subsection b), the proposed project will result in a small (1,300 sf) increase in impervious surface area with the removal of one 44-foot diameter water tank and the construction of two 40-foot diameter water tanks. This has little to no potential to alter existing groundwater recharge patterns. The project will not affect the implementation of a sustainable groundwater management plan as it will not change the type of ongoing operations nor increase the water service area, water withdrawals, or water entitlements. As such, the proposed project will not interfere with the implementation of a sustainable groundwater management plan.

For the reasons explained above, it has been determined that the proposed project will not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

Mitigation Measures: No mitigation measures are required for the project to result in a less-than-significant impact to *Hydrology and Water Quality.*

XI. LAND USE AND PLANNING: *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Physically divide an established community?				X
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?		X		

Setting: The project is located in the unincorporated community of Loleta in Humboldt County, southwest of the intersection of US Highway 101 and Loleta Drive. The two proposed new water storage tanks would be located on a recently created, undeveloped parcel owned by LCSD. The approximately 0.61-acre parcel was recently relinquished to LCSD for this project by the County of Humboldt. An APN has not yet been assigned to the new parcel (Figures 3 and 4). The existing water storage tank to be removed is located on APN 309-042-025. Two aboveground portions of the existing water main would be removed on APN 309-042-030, a privately-owned parcel, using hand tools. A new water main would be installed along Loleta Drive to connect the new water tanks to the distribution network (Figure 3). The project is located entirely within the Coastal Zone, in the "Local" coastal development permit jurisdiction. The Humboldt County General Plan Volume II Eel River Area Plan of the Humboldt County Local Coastal Program (Eel River Area Plan; Humboldt County, 2014) serves as the basis for land use planning within this portion of the Coastal Zone. The project area is zoned Agriculture Exclusive, 60-acre minimum lot size, with Transitional Agricultural Lands combining zone (AE-60/T). The project area has a general plan designation of Agricultural Exclusive (AE). Land use in the vicinity is characteristic of agricultural (grazing) and rural residential areas.

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

a) *Physically divide an established community?* No Impact

The proposed project is located near the unincorporated community of Loleta in Humboldt County. The parcels containing the project site have a general plan designation of AE and are zoned Agriculture Exclusive, 60-acre minimum lot size, with Transitional Agricultural Lands combining zone (AE-60/T). The proposed project is consistent with the Essential Services civic use type that is a conditionally permitted use in the AE zoning. As such, the project is not of the nature to physically divide an established community. The proposed project would improve water storage and distribution infrastructure that is an integral part of the local community.

For the reasons explained above, it has been determined that the proposed project will not physically divide an established community. Therefore, the proposed project would have no impact on this resource category.

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 with Mitigation Incorporated

The project proposes to remove an existing water storage tank, construct two new replacement tanks, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe using hand tools. These activities are consistent with the Essential Services civic use type that is a conditionally permitted use in the Agricultural Exclusive (AE) zoning. Section 313-7.1 of the Humboldt County Zoning Regulations lists Civil Use Types as a Conditionally Permitted Use - specifically 'Essential Services'. Humboldt County Zoning Regulations Section 314-171.5.5 lists water storage tanks under the 'Essential Services' definition.

As discussed throughout this document, the project has been designed and mitigated to comply with local, State, and federal regulatory requirements, including those of the Humboldt County General Plan Volume II Eel River Area Plan of the Humboldt County Local Coastal Program (Eel River Area Plan; Humboldt County, 2014). In all instances where potentially significant impacts have been identified, mitigation is provided to reduce each impact to less-than-significant levels. This was necessary in the following sections of the document:

- Aesthetics (Section I)
- Air Quality (Section III)
- Biological Resources (Section IV)
- Cultural Resources (Section V)
- Geology and Soils (Section VII)

- Hazards and Hazardous Materials (Section IX)
- Tribal Cultural Resources (XVIII)
- Utilities and Service Systems (XIX)

As designed and mitigated, the proposed project would not conflict with any applicable land use plan, policy, or regulation of any agency with jurisdiction over the project.

With the implementation of mitigation measures included in other sections of this document and for the reasons explained above, it has been determined that the proposed project will not 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. Therefore, the proposed project would have a less-than-significant impact with mitigation incorporated on this resource category.

Mitigation Measures: The following mitigation measures have been required in other sections of this document, so that when implemented, the proposed project will have a less significant impact to *Land Use and Planning*:

Mitigation Measure AES-1 (International Dark-Sky Association Compliance)

Mitigation Measure AQ-1 (Fugitive Dust Control Measures)

Mitigation Measure BIO-1 (Protect Special-Status Amphibians)

Mitigation Measure BIO-2 (Protect Nesting Birds)

Mitigation Measure BIO-3 (Protect Sensitive Vegetation Communities)

Mitigation Measure BIO-4 (Protect Wetlands and Other Waters)

Mitigation Measure CR-1 (Inadvertent Discovery Protocol – Archaeological and Historical Resources)

Mitigation Measure CR-2 (Inadvertent Discovery Protocol – Human Remains)

Mitigation Measure GEO-1 (Adhere to Geotechnical Report Recommendations)

Mitigation Measure GEO-2 (Inadvertent Discovery Protocol – Paleontological Resources)

XII. MINERAL RESOURCES: *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?				X
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?				X

Setting: A mineral resource is land on which known deposits of commercially viable mineral or aggregate deposits exist. The designation is applied to sites determined by the California Geological Survey as being a resource of regional significance and is intended to help maintain any quarrying operations and protect them from encroachment of incompatible uses.

The proposed project is located near the community of Loleta. Mineral resources in the vicinity of the community of Loleta are primarily aggregate deposits found along the Eel River. Areas along the Eel River are currently used for aggregate resource extraction (gravel). Other than instream aggregate, no locally important mineral resources have been identified in the project vicinity.

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?* No Impact

Mineral resources in the vicinity of the community of Loleta are primarily aggregate deposits found along the Eel River. Areas along the Eel River are currently used for aggregate resource extraction (gravel). Other than instream aggregate, no locally important mineral resources have been identified in the vicinity of the project site.

As such, the proposed project will not 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 and would not result in the loss of availability of a locally important mineral resource recovery site. Therefore, the proposed project would result in no impact on this resource category.

b) *Result in the loss of availability of a locally important mineral resource recovery site delineated on a local General Plan, specific plan or other land use plan?* No Impact

Mineral resources in the vicinity of the community of Loleta are primarily aggregate deposits found along the Eel River. Areas along the Eel River are currently used for aggregate resource extraction (gravel). Other than instream aggregate, no locally important mineral resources have been identified in the vicinity of the project site.

For the reasons discussed above, it has been determined that the proposed project would not 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. Therefore, the proposed project would result in no impact on this resource category.

Mitigation Measures: No mitigation measures are required for the project to result in a less-than-significant impact to *Mineral Resources.*

XIII. NOISE: *Would the project result in:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
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 site to excessive noise levels?				X

Setting: Noise impacts are those that exceed noise standards developed to provide reasonable control of noise to residences, parks, open spaces, and other specific designated sites. Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks, and airplanes, and stationary sources such as construction sites, machinery, and industrial operations.

Existing development on the project site is limited to the existing water storage tank and appurtenances, the associated unpaved access road, and Loleta Drive. Operation/maintenance of the existing water storage and distribution infrastructure to be replaced is considered a noise-generating source. In the vicinity of the project, other noise generating sources include vehicle traffic along US Highway 101, Loleta Drive, and other streets in Loleta. Additionally, day-to-day activities at Thomas Carr Park-Firefighters Pavilion, Loleta Grammar School, and nearby agricultural and rural residential land uses are noise generating sources. Airports nearest the project site include the Rohnerville Airport (13 miles), Samoa Field Airport (18 miles), and the Kneeland Airport (31 miles). Airports are not a source of excessive noise levels affecting the project site.

Residential uses, schools, hospitals, churches, and libraries are typically considered sensitive noise receptors as these are locations where people sleep or expect low noise levels. The nearest known potential sensitive receptor to the proposed project is the Thomas Carr Park – Firefighters Pavilion (>200 feet). Other sensitive receptors in the vicinity of the proposed project include, but are not limited to, residence to the south of Loleta Drive (>550 feet), Loleta Grammar School (>600 feet), residences to the north of Loleta Drive (>800 feet), and residences to the southwest of the existing tank (>1,000 feet).

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

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

Construction of the project would temporarily increase noise in the immediate vicinity of the project site over an approximately three-month period due to the use of construction equipment as well as from increased traffic as construction workers commute to and from the project site. Construction activities would occur between the hours of 7:30 am and 5:30 pm. Noise impacts resulting from construction would depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (for example, early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise sensitive land uses or habitats, or when construction lasts over extended periods of times. Construction activities generate considerable amounts of noise, especially during earthmoving activities when heavy equipment is used.

Equipment for construction of the new tanks would include cranes, excavators, backhoes, loaders, small skid-steer loaders, flatbed semi-trucks, dump trucks, hydraulic lifts, personnel transport vehicles, service trucks, cement trucks, and compaction equipment. Construction access will be from Loleta Drive. Permanent access to the new tank site will be constructed from an existing pull-out on Loleta Drive. Construction equipment and materials will be staged in the pull-out on Loleta Drive, on the new tank site, and possibly in the parking lot of the Loleta Fireman's Pavilion.

Equipment for construction of the new water main would include backhoes, small skid-steer loaders, compaction equipment, personnel transport vehicles, service trucks, dump trucks, and paving equipment. Access for this component of construction will be from Loleta Drive, along which the new water main will be constructed. Equipment and materials for this task will be staged along Loleta Drive, at the pull-out on Loleta Drive, at the new tank site, and possibly in the parking lot of the Loleta Fireman's Pavilion.

Equipment for demolition and removal of the existing water tank would include cranes, excavators, dump trucks, loaders, small skid-steer loaders, backhoes, hydraulic lifts, service trucks, and personnel transport vehicles. Access for this activity will be from LCSD's existing easement from the US Highway 101 southbound onramp. Equipment and materials for this activity will be staged at the pull-out on Loleta Drive, at the new tank site, and possibly in the parking lot of the Loleta Fireman's Pavilion.

As previously described, exposed portions of the existing water main will be removed using hand tools only to minimize impacts. Access for pipe removal will be by temporary incursion on foot only. No need for staging of equipment or materials is anticipated.

Humboldt County does not establish quantitative limits for construction-related noise, and the Eel River Area Plan does not include applicable noise-related policies. Based on criteria commonly used throughout California, this analysis considers construction noise impacts to be significant where noise from construction activities exceeds 60 dBA Leq and exceeds the ambient noise environment by at least 5 dBA Leq at noise-sensitive uses (such as residential, neighborhood parks) in the project vicinity for a period exceeding one year.

Based on a review of the equipment anticipated, construction noise levels are anticipated to be up to 85 dBA Leq at 50 feet during construction (FHWA, 2006). These levels were used as conservative levels to assess impacts on nearby land uses. Sound from a point source is known to attenuate at a rate of -6 dB for each doubling of distance. For example, a noise level of 85 dB Leq as measured at 50 feet from the noise source would attenuate to 79 dB Leq at 100 feet from the source, to 73 dB Leq at 200 feet from the source, to 67 dB Leq at 400 feet from the source, to 61 dB Leq at 800 feet from the source, and to 55 dB Leq at 1,600 feet from the source to the receptor.

Construction activities would be transitory (occurring intermittently over the construction period) and temporary (occurring over a timeframe of approximately three months). Although project construction would intermittently expose sensitive receptors (such as, Thomas Carr Park – Firefighters Pavilion, nearby residences, and Loleta Grammar School) to noise levels above 60 dBA Leq for the three-month construction period, it would not exceed the ambient noise environment by at least 5 dBA Leq for a period exceeding one year. Project operation is not anticipated to increase noise levels above existing conditions.

For the reasons explained above, it has been determined that the proposed project will not result in the 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. Therefore, the proposed project would result in a less-than-significant impact.

b) *Generation of excessive groundborne vibration or groundborne noise levels?* Less-Than-Significant Impact

The proposed project's construction activity has the potential to result in minor groundborne vibration and noise. The closest land uses potentially impacted by groundborne vibration and noise are Thomas Carr Park – Firefighters Pavilion, nearby residences, and Loleta Grammar School. Ground vibrations from construction activities do not often reach the levels that can damage structures. Pile-driving generates the highest levels of vibration; however, pile-driving will not occur during construction of the proposed project. Construction activities will occur for a short duration and during daytime hours and will not result in groundborne noise levels that are excessive. Therefore, the proposed project would result in a less-than-significant 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 site to excessive noise levels?* No Impact

The project site is not located within the vicinity of a private airstrip, within an airport land use plan, or within two miles of a public airport or public use airport. Airports nearest the project site include the Rohnerville Airport (13 miles), Samoa Field Airport (18 miles), and the Kneeland Airport (31 miles). Due to the distance from the project site, airports are not a source of excessive noise levels affecting the project site.

For these reasons discussed above, it has been determined that the proposed project would not expose people residing or working in the project site to excessive noise levels. Therefore, the proposed project would result in no impact on this resource category.

Mitigation Measures: No mitigation measures are required for the project to result in a less-than-significant impact to *Noise.*

XIV. POPULATION AND HOUSING: *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)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Setting: Section 1.2 of the Preliminary Engineering Report prepared for the proposed project (SHN, 2021) includes an analysis of Loleta's water demand and required tank storage. It addresses existing water demand and capacity, required water tank storage capacity, maximum daily demand and peak hourly demand, fire protection, anticipated growth, and the impact of industrial and commercial users. The following information is summarized from the Preliminary Engineering Report.

The population of Loleta was estimated to be approximately 632 in 2019. A comparison of the number of water connections in 2005 and 2013 yields a growth rate of approximately 0.95%. The DWSRF program requires a maximum growth horizon of 20 years. Considering the project is anticipated to be constructed by the end of 2023, the 20-year growth horizon was projected for the year 2043. A growth capacity allocation was estimated using the number of single-family and multi-family connections for 2043 using an annual growth rate of 0.95%. The total required storage volume resulting from maximum day demand, fire protection, and anticipated growth described in the Preliminary Engineering Report is 452,429 gallons. The maximum allowable storage volume according to the DWSRF financing limitation is 450,013 gallons. Because the estimated storage volume required is greater than the financing limitation, the proposed storage volume for the project is 450,013 gallons. Because the project would include two similar sized tanks, each tank volume would be approximately 225,006 gallons each.

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

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

With an original design capacity of approximately 225,000 gallons, the existing redwood water tank is now failing with several leaks, resulting in significant water loss and a reduction in the tank's useable capacity. Current tank capacity is down to approximately 103,400 gallons. Based on the estimated 2043 storage volume required of 450,013 gallons, the existing system currently holds less than 23% of the necessary storage volume. System losses from the leaking tank represent a loss rate of 20%-24%. In addition, the tank does not meet current seismic design standards, does not meet the minimum storage capacity needed for the community, and is vulnerable to potential wildfires (SHN, 2021). The existing redwood water tank is the only potable water storage tank in the District's water system.

LCSD proposes to construct two new water storage tanks to replace the existing tank and to meet current and future water storage needs for the community. The proposed project also includes appurtenant improvements such as tank site access, new water main piping, and removal of the existing tank and exposed portions of defunct water main.

As discussed under Setting, the new water storage tanks have been sized to meet the demand associated with planned population growth for the community of Loleta, as limited by the DWSRF financing limitation. The project does not propose new housing, businesses, or other infrastructure that would have the potential to induce substantial population growth. For these reasons, it has been determined that the proposed project would not induce substantial unplanned population growth in an area, either directly or indirectly. Therefore, the proposed project would result in no impact on this resource category.

b) *Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?* No Impact

The only housing located on the project parcels is a single-family residence on APN 309-042-030. Project activities on APN 309-042-030 would be limited to 1) use of LCSD's access easement for removal of the existing water tank and 2) removal of the exposed

defunct portions of the existing water main between the redwood tank and the distribution system (Figure 3). The project does not include modification or construction of housing. The proposed project would not displace people or housing or otherwise effect housing.

For these reasons, it has been determined that the proposed project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. Therefore, the proposed project would result in no impact on this resource category.

Mitigation Measures: No mitigation measures are required for the project to result in a less-than-significant impact to *Population and Housing.*

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

Setting: The project site is located in the unincorporated community of Loleta in Humboldt County. With an original design capacity of approximately 225,000 gallons, the existing redwood tank is now failing with several leaks, resulting in significant water loss (10,000 gallons per day) and a reduction in the tanks usable capacity. In addition, the tank does not meet current seismic design standards, does not meet the minimum storage capacity needed for the community, and is vulnerable to potential wildfires. LCSD proposes to replace its existing redwood storage tank to meet current and future water storage needs for the community. The new tanks would comply with current seismic and structural codes and provide LCSD with a more secure source of water storage for the foreseeable future (SHN, 2021).

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection*? No Impact

The proposed project is located in the community of Loleta and is accessed by way of US Highway 101 or Loleta Drive. Loleta Fire Protection District is responsible for providing structural fire protection services, through the Loleta Volunteer Fire Department, to the town of Loleta and surrounding lands. The Loleta FPD operates one fire station, located on Park Street, which is centrally located in downtown Loleta. Although the District is responsible for structural fire protection, the CDF retains responsibility for grass and forest fires within the boundaries of the District. The District does have a mutual aid agreement with CDF as well as other adjacent fire protection agencies (LAFCO, 2008).

The project would result in an overall benefit to public services including fire protection by improving LCSD's water storage and distribution system to remedy water system deficiencies described above in Setting. The new water storage tanks would comply with current seismic and structural codes and provide LCSD with a more secure source of water storage for the foreseeable future, including water for fire protection. The project would not result in an increase in population or result in the need to increase staffing. As such, the proposed project does not require new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection. Therefore, the proposed project would result in no impact on this resource category.

b) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection*? No Impact

The proposed project is located in the community of Loleta and is accessed by way of US Highway 101 or Loleta Drive. Law enforcement services are provided by the Humboldt County Sheriff's Department. The project proposes improvement of LCSD's water storage and distribution system to remedy water system deficiencies described above in Setting. The project would not result in an increase in population or result in the need to increase staffing. While the replacement water tanks may require occasional law enforcement response, the need would be the same as for the existing water tank. The proposed project will not significantly increase the demand for law enforcement services to the extent that new or physically altered facilities would be required.

For the reasons explained above, it has been determined that the proposed project would not require new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives for police protection. Therefore, the proposed project would result in no impact on this resource category.

c) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools*? No Impact

The proposed project is located within the Loleta Union School District. The Loleta Union School District operates the Loleta Elementary School which serves students through 8th grade. The project proposes improvement of LCSD's water storage and distribution system to remedy water system deficiencies described above in Setting. The project would not result in an increase in population and would not affect the provision of public education services. The proposed project is not expected to result in an increase in the number of school-age children within the school district. As such, the proposed project does not require new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives for schools. Therefore, the proposed project would result in no impact on this resource category.

d) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks*? No Impact

Parks and recreational facilities in Loleta include Thomas Carr Park – Firefighters Pavilion. The project proposes improvement of LCSD's water storage and distribution system to remedy water system deficiencies described above in Setting. The project would not result in an increase in population or result in the need to increase staffing and would have a limited impact on the provision of parks and recreational services. As such, the proposed project does not require new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives for parks. Therefore, the proposed project will have no impact on this resource category.

e) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities?* No Impact

The project proposes improvement of LCSD's water storage and distribution system to remedy water system deficiencies described above in Setting. The project would not result in an increase in population or result in the need to increase staffing. The project will not result in an increase in population and would have a limited impact on the provision of public facilities. Therefore, the proposed project will have no impact on this resource category.

Mitigation Measures: No mitigation measures are required for the project to result in a less-than-significant impact to *Public Services.*

XVI. RECREATION:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Setting: Parks and recreational facilities in Loleta include Thomas Carr Park – Firefighters Pavilion.

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?* No Impact

The project proposes improvement of LCSD's water storage and distribution system to remedy existing deficiencies. The project does not propose the development of housing and would not result in an increase in population growth. As such, the proposed project is not of the nature to increase the use of recreational facilities in the Loleta area such that substantial physical deterioration of these facilities would occur or be accelerated. Therefore, the proposed project will have no impact on this resource category.

b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities which will have an adverse physical effect on the environment?* No Impact

The project proposes improvement of LCSD's water storage and distribution system to remedy existing deficiencies. The proposed project would not include the development of recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Therefore, the proposed project will have no impact on this resource category.

Mitigation Measures: No mitigation measures are required for the project to result in a less-than-significant impact to *Recreation.*

XVII. **TRANSPORTATION:** *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?			X	
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)?			X	
d) Result in inadequate emergency access?			X	

Setting: The project is located in the unincorporated community of Loleta, southwest of the intersection of US Highway 101 and Loleta Drive. The two proposed new water storage tanks would be located on a recently created, undeveloped parcel owned by LCSD and accessed from Loleta Drive at the location of an existing pull-out (Figures 3-5). A locked gate will restrict access to the new tanks site (Figure 5). The existing redwood storage tank to be removed is accessed from the US Highway 101 Southbound onramp from Loleta Drive (Figure 3). LCSD has an encroachment permit from Caltrans to access the tank. A permanent easement also runs along the eastern private property boundary of APN 309-042-030, allowing LCSD staff to access the tank for operation and maintenance. Caltrans determined that LCSD obtaining an encroachment permit to replace the existing tank at the existing site and authorizing continued long-term use is very unlikely. However, Caltrans indicated that obtaining an encroachment permit for tank removal is likely. The existing access route is a single lane unpaved road approximately 600 feet long, with slope gradients up to approximately 8 percent. A locked gate at the entrance restricts access to the existing tank site. Two aboveground portions of the existing water main would be removed on APN 309-042-030, a privately-owned parcel, using hand tools. A new water main would be installed along Loleta Drive within the County right-of-way to connect the new water tanks to the distribution network (Figure 3). The project would not result in an increase in population or result in the need to increase staffing. LCSD has one chief plant operator who operates the drinking water system.

Loleta Drive (County Road Number C3H200) is a paved two-way road that provides access to agricultural, residential, and rural residential uses in the project area. Loleta Drive, in the vicinity of the project site has an approximately 32-foot paved width with two 13-foot lanes and varying 1–5-foot shoulders on both sides.

There are currently limited pedestrian or bicycle facilities in the community of Loleta. No specific plans are known for improvements to the portion of Loleta Drive in the vicinity of the project. Redwood Transit System provides transit service to Loleta. The nearest bus stop to the project is at the intersection of Loleta Drive and Scenic Drive.

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

a) *Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?* Less-Than-Significant Impact

Construction

Construction traffic for the proposed project would result in a short-term increase in construction-related vehicle trips on US Highway 101, Loleta Drive, and other local roadways and highways. Construction would result in vehicle trips by construction workers, haul-truck trips for delivery, and disposal of construction materials and spoils to and from construction areas. Development of the proposed new tanks site would involve a new permanent encroachment on Loleta Drive within County right-of-way. Installation of a new water main along Loleta Drive will require temporary encroachments along Loleta Drive within County right-of-way. An encroachment permit will be required for any work completed within County right-of-way. Demolition and removal of the existing water storage tank would also require temporary encroachments within the California Department of Transportation (Caltrans) right-of-way. An encroachment permit will be required for any work completed within the Caltrans highway right-of-way. The encroachment permit application(s) for Caltrans and Humboldt County require preparation of traffic control plans for work that would block the right-of-way, and plans for re-routing of vehicles, bicycles, and pedestrians, as needed. Implementation of traffic controls would be required in accordance with Caltrans and County standards, and contractors would be required to comply with

the general conditions of the encroachment permits, including restoration of any damage to right-of-way improvements. Through compliance with Caltrans and County requirements, construction activities would not result in substantial adverse effects or conflicts with the local roadway system.

Operation
Transportation related to project operation would be essentially the same as the CEQA baseline. As with the current water system operation, the LCSD water operator would continue to make regular operation- and maintenance-related visits to the water storage facilities. No increase in operations-related traffic is anticipated. Access to the new water storage tanks would be from Loleta Drive rather than by the existing Caltrans easement from the US Highway 101 Southbound onramp from Loleta Drive. Pedestrian, bicycle, and transit access to the project site would be unaffected.

For the reasons explained above, it has been determined that the proposed project will not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

b) *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?* Less-Than-Significant Impact

The amended CEQA Guidelines (Section 15064.3) have replaced level of service (LOS) with vehicle miles traveled (VMT) as the most appropriate measure of a project's transportation impacts. For a land use project, VMT exceeding an applicable threshold of significance may indicate a significant impact. At this time, Humboldt County has not adopted thresholds to determine VMT impacts as a result of land use projects. If existing models or methods are not available to estimate VMT for the project being considered, a lead agency may analyze the project's VMT qualitatively (CEQA Guidelines Section 15064.3[b][3]). Due to the absence of existing models or methods for analyzing VMT impacts in Humboldt County, this section includes a qualitative analysis of VMT impacts from the proposed project.

Construction
Construction traffic for the project would result in a minor, short-term increase in construction-related vehicle trips on US Highway 101, Loleta Drive, and other local roadways and highways. Construction would result in vehicle/truck trips by construction workers and haul-truck trips for delivery and disposal of construction materials to and from construction areas. Since construction of the proposed improvements would be temporary, construction activities would not be expected to result in significant impacts related to VMT.

Operation
Transportation related to project operation would be essentially the same as the CEQA baseline. As with the current water system operation, the LCSD water operator would continue to make regular operation- and maintenance-related visits to the water storage facilities. No increase in operations-related trips or vehicle miles travelled is anticipated. Access to the new water storage tanks would be directly from Loleta Drive rather than by the existing Caltrans easement from the US Highway 101 Southbound onramp from Loleta Drive. This would reduce the length of operator visits by approximately 600 feet per trip (the length of the existing tank access road).

For the reasons explained above, it has been determined that the proposed project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). Therefore, the proposed project would result in a less-than-significant impact on this resource category.

c) *Substantially increase hazards due to a geometric design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)?* Less-Than-Significant Impact

The project would not change roadway geometrics that could increase hazards related to design features or incompatible uses. Instead, the project proposes to access the new water storage tanks site by a new encroachment directly from Loleta Drive that meets the requirements of the Humboldt County Department of Public Works. This would replace the existing water storage tank access which is by a single lane unpaved road approximately 600 feet long, with slope gradients up to approximately 8 percent and the easement for which Caltrans has indicated is not likely to be renewed. Also, development of the new tanks site would include a guard rail between Loleta Drive and the new tanks (Figure 5).

For the reasons explained above, it has been determined that the proposed project would not substantially increase hazards due to a geometric design feature or incompatible uses. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

d) *Result in inadequate emergency access?* Less-Than-Significant Impact

The proposed project will be accessed by way of SR- US Highway 101 and Loleta Drive during construction and operation. Construction of the project would temporarily generate additional traffic on the existing area roadway network. These vehicle trips would include construction workers traveling to the site and delivery trips associated with construction equipment and materials. Delivery of construction materials to the site would likely require oversize vehicles that may travel at slower speeds than existing traffic.

As the proposed project includes improvements within the Humboldt County right-of-way (along Loleta Drive) and Caltrans right-of-way (along US Highway 101), the proposed project will require encroachment permits from Humboldt County and Caltrans. The encroachment permit applications require preparation of traffic control plans for work that would block the public right-of-way, and plans for re-routing of vehicles, bicycles, and pedestrians, as needed. Implementation of traffic controls would be required in accordance with County and State standards, and contractors would be required to adhere to approved traffic control plans, which would minimize conflicts related to emergency access and circulation. Contractors would be required to have ready at all times the means necessary to accommodate access by emergency vehicles, such as plating over excavations, and travel lane closures would be managed, such as keeping one travel lane open at all times to allow alternating traffic flow in both directions along affected roadways. Through compliance with County and State requirements, construction activities would not result in inadequate emergency access.

For the reasons explained above, it has been determined that the proposed project would not result in inadequate emergency access. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

Mitigation Measures: No mitigation measures require implementation for the project to result in a less-than-significant impact to *Transportation*.

***XVIII.* TRIBAL CULTURAL RESOURCES:** *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*	**Potentially Significant Impact**	**Less-Than-Significant with Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) 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		**X**		
b) 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. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		**X**		

Setting: The project, located in the unincorporated community of Loleta, proposes to remove an existing water storage tank, construct two new replacement tanks, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe.

A Cultural Resources Investigation was completed for the project by William Rich & Associates (WRA; WRA, 2019). The methods employed in the Investigation included a record search at the Northwest Information Center (NWIC), a review of archaeological and historical literature pertinent to the project area and general region, correspondence with Native Americans and other knowledgeable individuals regarding the history of the area, and a pedestrian field survey of the project area of potential effects (APE) and adjacent terrain. According to the NWIC files, no Native American or historic period cultural resources are known in the project area or within a half-mile buffer.

Background research included a review of archaeological and historical literature pertinent to the project region. Ethnogeographic reports indicate that the project area is located within the traditional territory of the Wiyot people, who are currently represented by three separate federally recognized governments. The Wiyot traditionally had large villages and camps along the margin of Humboldt Bay and along the lower Eel River and Mad River. No specific villages or other named areas are documented for the upslope hills on Table Bluff that later became the townsite of Loleta. The general project vicinity is in an area known for historic period activity by American settlers, who utilized this rich environment mainly for ranching and agricultural production. The City of Loleta, initially named Swauger until the 1890s, was for many decades a successful commercial and residential stop along the route of the Eel River and Eureka Railroad. The railroad was in turn re-named the Northwestern Pacific Railroad after being purchased by the Santa Fe and Southern Pacific Railroad companies in 1907 (WRA, 2019).

Correspondence with Wiyot area tribes was conducted by WRA to garner information about the project area. The Native American Heritage Commission (NAHC) was asked to search their sacred lands database for the project area and provide a suggested list of tribes with interest in this area of Humboldt County. The Tribal Historic Preservation Officers (THPO) for the Blue Lake Rancheria, the Wiyot Tribe, and the Bear River Band of the Rohnerville Rancheria were contacted by WRA to inquire about tribal cultural resources or other resource types in the vicinity. Responses were received by WRA from all three tribes. On July 11, 2019 Janet Eidsness, THPO for the Blue Lake Rancheria responded that the proposed project is outside of the mapped area of concern for the tribe and that they have no comments. On July 15, 2019 Ted Hernandez, Chairman of the Wiyot Tribe, responded and stated they are not aware of any cultural resources at the project location, and recommended that an inadvertent discovery protocol be implemented during the project. On July 16, 2019 Erika Cooper, THPO for the Bear River Band of the Rohnerville Rancheria, stated that there are no known cultural resources at the project location (WRA, 2019).

The Cultural Resources Investigation found that tribal cultural resources (PRC 21074) do not appear to be present (WRA, 2019).

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

a) *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is 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)?* Less-Than-Significant Impact with Mitigation Incorporated

The project proposes to remove an existing water storage tank, construct two new replacement tanks, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe. The Cultural Resources Investigation found that tribal cultural resources (PRC 21074) do not appear to be present (WRA, 2019).

A request for tribal consultation pursuant to AB 52 was initiated by LCSD on October 5, 2021 with the Wiyot Tribe, Bear River Band of Rohnerville Rancheria, Blue Lake Rancheria, and Karuk Tribe. On October 28, 2021, the THPO for the Blue Lake Rancheria responded that the project is outside the area of concern for cultural resources mapped by the Blue Lake Rancheria, and they declined the invitation to consult. No other responses were received. As such, the proposed project would not cause a substantial adverse change in a significance of a known tribal cultural resource. However, there remains the possibility that tribal cultural resources could exist in the area and may be uncovered during project development. To prevent potential impacts to unknown tribal cultural resources at the project site, Inadvertent Discovery Protocols have been included as **Mitigation Measures CR-1 and CR-2** for the proposed project (see Section III – Cultural Resources).

With the implementation of **Mitigation Measures CR-1 and CR-2** and for the reasons explained above, it has been determined that the proposed project will not cause a substantial adverse change in the significance of a tribal cultural resource that is 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). Therefore, the proposed project would result in a less-than-significant impact with mitigation incorporated on this resource category.

b) *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is 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.?* Less-Than-Significant Impact with Mitigation Incorporated

The project proposes to remove an existing water storage tank, construct two new replacement tanks, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe. The Cultural Resources Investigation found that tribal cultural resources (PRC 21074) do not appear to be present (WRA, 2019).

A request for tribal consultation pursuant to AB 52 was initiated by LCSD on October 5, 2021 with the Wiyot Tribe, Bear River Band of Rohnerville Rancheria, Blue Lake Rancheria, and Karuk Tribe. On October 28, 2021, the THPO for the Blue Lake Rancheria responded that the project is outside the area of concern for cultural resources mapped by the Blue Lake Rancheria, and they declined the invitation to consult. No other responses were received. As such, the proposed project would not cause a substantial adverse change in a significance of a known tribal cultural resource. However, there remains the possibility that tribal cultural resources could exist in the area and may be uncovered during project development. To prevent potential impacts to unknown tribal cultural resources at the project site, Inadvertent Discovery Protocols have been included as **Mitigation Measures CR-1 and CR-2** for the proposed project (see Section III – Cultural Resources).

With the implementation of **Mitigation Measures CR-1 and CR-2** and for the reasons explained above, it has been determined that the proposed project will not cause a substantial adverse change in the significance of a tribal cultural resource that is 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. Therefore, the proposed project would result in a less-than-significant impact with mitigation incorporated on this resource category.

Mitigation Measures: The following mitigation measures have been required in other sections of this document, so that when implemented, the proposed project will have a less significant impact to *Tribal Cultural Resources*:

Mitigation Measure CR-1 (Inadvertent Discovery Protocol – Archaeological and Historical Resources)

Mitigation Measure CR-2 (Inadvertent Discovery Protocol – Human Remains)

XIX. UTILITIES AND SERVICE SYSTEMS: *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?		X		
b) Have sufficient water supplies available to serve the project and or reasonably foreseeable future development during normal, dry and multiple dry years?			X	
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?			X	
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?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

Setting: The project, located in the unincorporated community of Loleta, proposes to remove an existing water storage tank, construct two new replacement tanks, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe.

Electricity
The existing water tank site has an electricity service connection from Pacific Gas & Electric Company (PG&E) and a solar panel which also provides electricity. Existing PG&E overhead power lines cross the proposed new tank site (Figure 5).

Wastewater
The project site does not include any wastewater facilities.

Water
The project site includes existing water storage and distribution infrastructure, including an existing water storage tank and appurtenances as well as water main piping. The tank site also includes a power pole and a small solar panel located near the existing redwood tank.

Stormwater
The project site does not include any stormwater facilities.

Solid Waste
Active permitted in-County transfer stations include the Humboldt Waste Management Authority (HWMA) facilities in Eureka or Samoa, California and the Recology Eel River Transfer Station in Fortuna, California. Large recyclable materials (scrap metal, wood, and concrete) and hazardous materials (washers, dryers, televisions, tires, etc.) are pulled from the waste stream at the Eureka facility, and the remaining solid waste is shipped to the Dry Creek Landfill in Medford, Oregon, and the Anderson Landfill in Anderson, California. There are also recycling drop off centers at Humboldt Sanitation in McKinleyville, Eel River Resource Recovery in Samoa, and HWMA in Eureka.

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

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 with Mitigation Incorporated

Existing development on the project site is limited to the existing water storage tank and appurtenances, the associated unpaved access road, and Loleta Drive. The project proposes to remove the existing water storage tank and appurtenances, construct two new replacement tanks with electrical connection to existing overhead power lines, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe. These water infrastructure improvements would result in physical impacts to the surface and subsurface of the project site. These impacts are considered to be part of the project's construction phase and are evaluated in other sections of this document including, but not limited to, Aesthetics (Section I), Air Quality (Section III), Biological Resources (Section IV), Cultural Resources (Section V), Geology and Soils (Section VII), Hazards and Hazardous Materials (Section IX), Land Use and Planning (Section XI), and Tribal Cultural Resources (Section XVIII). In instances where significant impacts have been identified, mitigation measures are included to reduce these impacts to less-than-significant levels. No additional mitigation measures beyond those already identified would be required.

With the implementation of mitigation measures included in other sections of this document and for the reasons explained above, it has been determined that the proposed project would not result in significant environmental effects from the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. Therefore, the proposed project would result in a less-than-significant impact with mitigation incorporated on this resource category.

b) *Have sufficient water supplies available to serve the project and/or reasonably foreseeable future development during normal, dry and multiple dry years?* Less-Than-Significant Impact

The proposed project would alter the location of and improve LCSD's water storage and conveyance infrastructure but would not change the type of ongoing operations nor increase the water service area, water withdrawals, or water entitlements. As such, the project would not affect the amount of water supply available to LCSD. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

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?* Less-Than-Significant Impact

No wastewater facilities are existing or proposed at the project site. As such, it has been determined that the proposed project will not result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

d) *Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?* Less-Than-Significant Impact

The proposed water system improvements would generate solid waste, primarily during construction.

Construction

Construction of the project would result in a temporary increase in solid waste disposal needs associated with demolition and construction wastes. To the greatest extent possible, construction materials existing onsite would be recycled and repurposed, which would significantly reduce the volume of construction waste. For materials that could not be reused or recycled, construction wastes would include, but not be limited to, excavated soils and materials resulting from the demolition of existing structures, and excess construction materials. Construction waste with no practical reuse or that cannot be salvaged or recycled would be legally disposed of at a local transfer station. Active permitted in-County transfer stations include the HWMA facilities in Eureka or Samoa, California and the Recology Eel River Transfer Station in Fortuna, California. Solid waste generated by the project would represent a small fraction of the daily permitted tonnage of these facilities. Disposal of waste materials generated during construction activities will be required to comply with applicable federal, state, and local regulations. Solid waste generated by construction of the project would be similar to other comparable construction projects in the region or state. There are no unusual project characteristics that would result in the generation of solid wastes in excess of state or local standards or in excess of the capacity of local infrastructure. Due to the temporary nature of the proposed construction activity, it would not have the potential to impair attainment of solid waste reduction goals.

Operation

Following construction, minimal solid waste would be generated by project operation, associated with maintenance and operation of the new water tanks and incidental trash from staff. A less-than-significant operational impact would occur.

For the reasons explained above, it has been determined that the proposed project will not 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. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

e) *Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?* Less-Than-Significant Impact

No applicable federal solid waste regulations would apply to the project. At the State level, the Integrated Waste Management Act mandates a reduction of waste being disposed and establishes an integrated framework for program implementation, solid waste planning, and solid waste facility and landfill compliance. The project would not conflict with or impede implementation of such programs. Following construction, project operation would not generate substantial additional solid waste. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

Mitigation Measures: The following mitigation measures have been required in other sections of this document, so that when implemented, the proposed project will have a less-than-significant impact to *Utilities and Service Systems*:

Mitigation Measure AES-1 (International Dark-Sky Association Compliance)

Mitigation Measure AQ-1 (Fugitive Dust Control Measures)

Mitigation Measure BIO-1 (Protect Special-Status Amphibians)

Mitigation Measure BIO-2 (Protect Nesting Birds)

Mitigation Measure BIO-3 (Protect Sensitive Vegetation Communities)

Mitigation Measure BIO-4 (Protect Wetlands and Other Waters)

Mitigation Measure CR-1 (Inadvertent Discovery Protocol – Archaeological and Historical Resources)

Mitigation Measure CR-2 (Inadvertent Discovery Protocol – Human Remains)

Mitigation Measure GEO-1 (Adhere to Geotechnical Report Recommendations)

Mitigation Measure GEO-2 (Inadvertent Discovery Protocol – Paleontological Resources)

XX. **WILDFIRE:** *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?			X	
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?			X	
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?			X	
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?			X	

Setting: The proposed project is located in the unincorporated community of Loleta, southwest of the intersection of US Highway 101 and Loleta Drive. The project site is zoned Agriculture Exclusive, 60-acre minimum lot size, with Transitional Agricultural Lands combining zone (AE-60/T). Land use in the vicinity is characteristic of agricultural (grazing) and rural residential areas. The project site is situated between approximately 100- and 240- foot elevation above mean sea level, with the highest elevations represented at the Loleta Drive interchange above the new tanks location, dropping to approximately 200 feet at the existing tank location, and 100 feet at the lowest pipe stream crossing (Figures 2 and 3). The site is primarily located on a broad, dissected gently to steeply sloping, uplifted marine terrace known as Table Bluff, with slopes between 2 and 30 percent in the project area. Slope gradients in and around the proposed new tanks site are relatively gentle and range from about 2 to 5 percent. Slope gradients at the existing tank site and associated access road are up to approximately 8 percent. Slope gradients along Loleta Drive where the new water main would be constructed are up to approximately 3 to 4 percent. Streamside slope gradients in the drainages where aboveground sections of defunct water main are to be removed are up to approximately 30 percent.

Loleta Fire Protection District (FPD) is responsible for providing structural fire protection services, through the Loleta Volunteer Fire Department, to the town of Loleta and surrounding lands. The Loleta FPD operates one fire station, located on Park Street, which is centrally located in downtown Loleta. Although the District is responsible for structural fire protection, the project is also located within a State Responsibility Area (SRA) and the California Department of Forestry and Fire Protection (CDF) retains responsibility for grass and forest fires within the boundaries of the District (CALFIRE, 2021a). The District does have a mutual aid agreement with CDF as well as other adjacent fire protection agencies (LAFCO, 2008).

CALFIRE designates lands in three general classifications, “Moderate”, “High” and “Very High” Fire Hazard Severity Zones (FHSZs). CALFIRE assigns FHSZs based on existing vegetation, topography, weather, crown fire potential, ember production and movement, and the likelihood of a site to burn over a 30 to 50-year time period. CALFIRE delineates the project site as part of a designated “Moderate” FHSZ (CALFIRE, 2021b) which is the lowest category of fire hazard severity.

The climate in Humboldt County is moderate, with the predominant weather factor being moist air masses from the ocean. Average annual rainfall in the area is approximately 50 to 60 inches with the majority falling between October and April. Predominant wind direction is typically from the northwest during summer months and from the southwest during storm events occurring during winter months. Temperatures in Loleta range from an average low of 39 degrees Fahrenheit (°F) in December to an average high of 72°F in September; extremes in temperatures are relatively uncommon due to the regional maritime influence (SHN, 2020a).

Discussion: Based on a field review by LCSD and other agency staff, existing information available to LCSD, and observations made on the project site and in the vicinity, the following findings can be made:

a) *Substantially impair an adopted emergency response plan or emergency evacuation plan?* Less-Than-Significant Impact

A review of the Humboldt County Emergency Operations Plan (Humboldt County, 2015) and the *Tsunami Hazard Area Map, County of Humboldt* (CGS, 2021) indicates that the proposed water system improvements would not impair emergency response activities nor established evacuation routes. The project site is not located within a tsunami or seiche zone (CGS, 2021). The proposed project

is not of the nature to physically interfere with emergency response nor emergency evacuation. The project would not block or alter any roads or pedestrian ways. The project will be designed to meet emergency access standards and accommodate the onsite maneuvering of emergency vehicles as required. The new tank site directly adjacent to Loleta Drive will be more accessible under emergency conditions than the existing tank site, which is accessible only by a single lane unpaved road approximately 600 feet long, with slopes up to approximately 8 percent.

For the reasons explained above, it has been determined that the proposed project will not substantially impair an adopted emergency response plan or emergency evacuation plan. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

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

CALFIRE delineates the project site as part of a designated "Moderate" FHSZ (CALFIRE, 2021b), which is the lowest category of fire hazard severity. The project is located southwest of the intersection of US Highway 101 and Loleta Drive. Vegetation composition varies across the project area, but is representative of coastal agricultural lands, disturbed, early successional woody shrub-dominated areas, and coastal drainageways and ravines. The project site is situated between approximately 100- and 240-foot elevation above mean sea level, with the highest elevations represented at the Loleta Drive interchange above the new tanks location, dropping to approximately 200 feet at the existing tank location, and 100 feet at the lowest pipe stream crossing. Slope gradients in the project area range between 2 and 30 percent. The proposed project is consistent with the surrounding land uses and would not introduce incompatible uses that would exacerbate wildfire risks. Furthermore, the project will improve the community of Loleta's fire protection and response capabilities by replacing substandard water storage infrastructure with new updated infrastructure. As such, the project would not, 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. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

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

The project is located southwest of the intersection of US Highway 101 and Loleta Drive in the community of Loleta. Existing development on the project site is limited to the existing water storage tank and appurtenances, the associated unpaved access road, and Loleta Drive. The project proposes to remove an existing water storage tank and appurtenances, construct two new replacement tanks with electrical connection to existing overhead power lines, construct new below-ground water main along the south side of Loleta Drive within the County right-of-way, and remove aboveground sections of defunct pipe. The proposed project does not 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. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

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

Slope gradients in and around the proposed new tanks site are relatively gentle and range from about 2 to 5 percent with a south to southwest slope aspect. Slope gradients at the existing tank site and associated access road are up to approximately 8 percent. Slope gradients along Loleta Drive where the new water main would be constructed are up to approximately 3 to 4 percent. Streamside slope gradients in the drainages where aboveground sections of defunct water main are to be removed are up to approximately 30 percent.

The proposed project does not propose an alteration of the course of a stream or river. The proposed project will result in a small (1,300 sf) increase in impervious surface area with the removal of one 44-foot diameter water tank and the construction of two 40-foot diameter water tanks, which has the potential to increase the rate or amount of surface runoff. However, the associated small increase in stormwater runoff is anticipated to be much less than the existing 10,000 gallons per day non-stormwater runoff from the leaking existing tank. The existing water tank would be demolished, which would end the existing 10,000 gallons per day leak, thereby reducing the rate and amount of surface runoff.

According to the Humboldt County GIS system, the project is within an area of low instability with no historic landslides shown (Humboldt County, 2021a).

Land use in the vicinity is characteristic of agricultural (grazing) and rural residential areas. The risk of wildfire in the immediate vicinity of the project site is limited. The proposed project is consistent with the existing use of the site and is not located in an area that would expose people or structures to downslope or downstream flooding or landslides resulting from post-fire slope instability, runoff, or drainage changes.

For the reasons explained above, it has been determined that the proposed project will not 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. Therefore, the proposed project would result in a less-than-significant impact to this resource category.

Mitigation Measures: No mitigation measures require implementation for the project to result in a less-than-significant impact to *Wildfire*.

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

Discussion: Based on the analysis undertaken as part of this Initial Study – Mitigated Negative Declaration, the following findings can be made:

a) *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?* Less-Than-Significant with Mitigation Incorporated

The proposed project has the potential to result in significant impacts related to Aesthetics (Section I), Air Quality (Section III), Biological Resources (Section IV), Cultural Resources (Section V), Geology and Soils (Section VII), Hazards and Hazardous Materials (Section IX), Land Use and Planning (Section XI), Tribal Cultural Resources (Section XVIII), and Utilities and Service Systems (Section XIX). However, mitigation measures have been identified and incorporated in the aforementioned sections which serve to reduce those potential impacts to a less-than-significant level.

With the incorporation and implementation of mitigation measures provided in this document, the project will not have the potential to degrade the quality of the environment, substantially reduce habitat of a fish or wildlife species, cause a fish or wildlife population to drop below the self-sustaining levels, threaten to eliminate a plant or animal community, 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. Therefore, the impacts of the proposed project are less-than-significant with mitigation incorporated.

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

Based on the discussion and findings in all Sections above, there is no evidence to suggest that the proposed project would have impacts that are cumulatively considerable. This is a finite project and impacts are limited in scope and duration and are not linked with future projects that may have an impact.

c) *Does the project have potential environmental effects which may cause substantial adverse effects on human beings, either directly or indirectly?* Less-Than-Significant Impact with Mitigation Incorporated

Based on the discussion and findings in Section III (Air Quality), Section VII (Geology and Soils), and Section IX (Hazards and Hazardous Materials), the project does have the potential to cause adverse effects on human beings in the vicinity of the project during construction. However, mitigation measures have been identified and incorporated in the aforementioned sections which serve to reduce those potential impacts to a less-than-significant level.

With the implementation of mitigation measures included in other sections of this document and for the reasons explained above, it has been determined that the proposed project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

Mitigation Measures: The following mitigation measures have been required in other sections of this document, so that when implemented, the proposed project will have a less significant impact to *Mandatory Findings of Significance*:

Mitigation Measure AES-1 (International Dark-Sky Association Compliance)

Mitigation Measure AQ-1 (Fugitive Dust Control Measures)

Mitigation Measure BIO-1 (Protect Special-Status Amphibians)

Mitigation Measure BIO-2 (Protect Nesting Birds)

Mitigation Measure BIO-3 (Protect Sensitive Vegetation Communities)

Mitigation Measure BIO-4 (Protect Wetlands and Other Waters)

Mitigation Measure CR-1 (Inadvertent Discovery Protocol – Archaeological and Historical Resources)

Mitigation Measure CR-2 (Inadvertent Discovery Protocol – Human Remains)

Mitigation Measure GEO-1 (Adhere to Geotechnical Report Recommendations)

Mitigation Measure GEO-2 (Inadvertent Discovery Protocol – Paleontological Resources)

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The following documents were used in preparation of this Initial Study. The reference documents are available from the Loleta Community Services District upon request. Please contact the District's General Manager by e-mail at generalmanagerlcsd@gmail.com.

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Proposed Mitigation Measures, Monitoring, and Reporting Program

Aesthetics

Mitigation Measure AES-1 (**International Dark-Sky Association Compliance):** All new outdoor lighting fixtures shall comply with the International Dark-Sky Association's (IDA) requirements for reducing waste of ambient light (that is, shall be "dark sky compliant"). This includes, but is not limited to, requirements for acceptable fixture types and maximum color temperature. The IDA recommendations can be found on their website at the following address: https://www.darksky.org/our-work/lighting/lighting-for-citizens/lighting-basics/.

Timing for Implementation/Compliance: Implement during design and construction and ongoing during operation
Person/Agency Responsible for Monitoring: LCSD
Monitoring Frequency: During design phase, confirm compliance following construction, and ongoing during project operation
Evidence of Compliance: Project plans identifying IDA-compliant lighting, and LCSD confirmation prior to sign-off of contractors completed project

Air Quality

Mitigation Measure AQ-1 (Fugitive Dust Control Measures): LCSD, at all times during construction, shall comply with Air Quality Regulation 1, Rule 104 (D) to the satisfaction of the NCUAQMD. This would require, but may not be limited to:

- Water all active construction areas regularly to limit dust; control erosion and prevent water runoff containing silt and debris from entering the storm drain system;
- Cover trucks hauling soil, sand, and other loose material;
- Pave, water, or apply non-toxic soil stabilizers on unpaved access roads and parking areas; and
- Sweep paved streets, access roads and parking areas daily if visible material is carried onto adjacent public streets.

Timing for Implementation/Compliance: Implement during construction
Person/Agency Responsible for Monitoring: LCSD
Monitoring Frequency: Ongoing during construction
Evidence of Compliance: Documentation following completion of construction

Biological Resources

Mitigation Measure BIO-1 (Protect Special-Status Amphibians): To minimize potential impacts to northern red-legged frog, project activities within riparian areas or within buffers of riparian areas shall occur between July 15 and October 31.

Timing for Implementation/Compliance: Implement during scheduling and construction
Person/Agency Responsible for Monitoring: LCSD
Monitoring Frequency: Confirm schedule prior to construction, then confirm compliance following construction
Evidence of Compliance: Documentation of planned schedule and again following completion of construction

Mitigation Measure BIO-2 (Protect Nesting Birds): To avoid potential impacts to nesting birds, in accordance with the Migratory Bird Treaty Act, one of the following shall be implemented:

- Conduct vegetation removal and other ground-disturbance activities associated with any construction activities between late August and mid-March, when birds are not typically nesting, or
- If vegetation removal or ground-disturbing activity is to take place during the nesting season (March 15 to August 15 for most birds), a qualified biologist shall conduct a pre-construction nesting bird survey. Pre-construction surveys for nesting pairs, nests, and eggs shall occur within the construction limits and within 100 feet (200 feet for raptors) of the construction limits. If active nests are encountered, species-specific measures shall be prepared by a qualified biologist in consultation with the USFWS and CDFW and implemented to prevent abandonment of the active nest.

Timing for Implementation/Compliance: As required annually between March 15 and August 15
Person/Agency Responsible for Monitoring: LCSD, California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service (USFWS)
Monitoring Frequency: As required annually for any construction activities occurring between March 15 and August 15

Evidence of Compliance: Documentation of construction activities by LCSD and any required biological surveys or protective measures implemented in consultation with CDFW and USFWS

Mitigation Measure BIO-3 (Protect Sensitive Vegetation Communities): To protect sensitive vegetation communities that occur within 50 feet of project construction:

- Sensitive vegetation communities shall be clearly identified in the construction documents and reviewed by LCSD prior to issuing for bid to ensure they are clearly marked as equipment exclusion zones during construction.
- Sensitive vegetation communities shall be demarcated by high-visibility construction fencing during the project construction period in a manner sufficient to avoid unintentional impacts.
- Any reseeding in these areas shall use native seed mix consistent with those found within the adjacent sensitive vegetation communities, or sterile barley seed.

Timing for Implementation/Compliance: During preparation of construction documents, prior to issuing for bid, and during construction and reseeding
Person/Agency Responsible for Monitoring: LCSD
Monitoring Frequency: During preparation of construction documents, prior to issuing for bid, and during construction and reseeding
Evidence of Compliance: Documentation in construction documents, weekly inspection during construction, and following completion of construction and reseeding

Mitigation Measure BIO-4 (Protect Wetlands and Other Waters): To avoid and minimize impacts to wetlands and other waters of the United States and State during project construction, including Coastal Zone wetlands and OHWM, LCSD shall implement the following avoidance and protection measures for nearby (within 50 feet) Waters of the United States and Waters of the State:

- Wetlands and OHWM shall be clearly identified in the construction documents and reviewed by LCSD prior to issuing for bid to ensure they are clearly marked as equipment exclusion zones during construction.
- Wetlands and OHWM shall be demarcated by high-visibility construction fencing during the project construction period in a manner sufficient to avoid unintentional impacts.
- Suitable perimeter control BMPs, such as silt fences or straw wattles shall be placed below all construction activities in the direction of downslope surface water features to intercept sediment before it reaches the waterway. These BMPs shall be installed prior to any clearing or grading activities.

Timing for Implementation/Compliance: During preparation of construction documents, prior to issuing for bid, and during construction
Person/Agency Responsible for Monitoring: LCSD
Monitoring Frequency: During preparation of construction documents, prior to issuing for bid, and during construction
Evidence of Compliance: Documentation in construction documents, weekly inspection during construction, and following completion of construction

Cultural Resources

Mitigation Measure CR-1 (Inadvertent Discovery Protocol – Archaeological and Historical Resources): Implementation of the Inadvertent Discovery Protocol in the WRA Cultural Resources Investigation (2019) shall be required during the proposed project's construction activity to minimize impacts to archaeological and historical resources: If cultural resources are encountered during construction activities, all onsite work shall cease in the immediate area and within a 50-foot buffer of the discovery location. A qualified archaeologist will be retained to evaluate and assess the significance of the discovery, and develop and implement an avoidance or mitigation plan, as appropriate. For discoveries known or likely to be associated with Native American heritage (prehistoric sites and select historic period sites), the Tribal Historic Preservation Officers (THPOs) for the Bear River Band of Rohnerville Rancheria, Blue Lake Rancheria, and Wiyot Tribe are also to be contacted immediately to evaluate the discovery and, in consultation with the project proponent, the County, and consulting archaeologist, develop a treatment plan in any instance where significant impacts cannot be avoided. Prehistoric materials which could be encountered include: obsidian and chert debitage or formal tools, grinding implements, (for example, pestles, handstones, bowl mortars, slabs), locally darkened midden, deposits of shell, faunal remains, and human burials. Historic archaeological discoveries may include nineteenth century building foundations, structural remains, or concentrations of artifacts made of glass, ceramics, metal or other materials found in buried pits, old wells or privies.

Timing for Implementation/Compliance: Throughout project construction
Person/Agency Responsible for Monitoring: LCSD, contractors, Bear River Band of Rohnerville Rancheria, Blue Lake Rancheria, and Wiyot Tribe
Monitoring Frequency: Throughout project construction

Evidence of Compliance: Documentation of any cultural resources encountered and implementation of protective measures in consultation with the THPOs for the Bear River Band of Rohnerville Rancheria, Blue Lake Rancheria, and Wiyot Tribe

Mitigation Measure CR-2 (Inadvertent Discovery Protocol – Human Remains): If human remains are discovered during project construction, work will stop at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie human remains (Public Resources Code, Section 7050.5). The Humboldt County Coroner will be contacted to determine if the cause of death must be investigated. If the Coroner determines that the remains are of Native American origin, it will be necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the NAHC (Public Resources Code, Section 5097). The Coroner will contact the NAHC. The THPOs for the Wiyot Tribe, Blue Lake Rancheria, and the Bear River Band of Rohnerville Rancheria, descendants, or most likely descendants, of the deceased will be contacted and work will not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in Public Resources Code, Section 5097.98. Work may resume if the NAHC is unable to identify a descendant or the descendant failed to make a recommendation.

Timing for Implementation/Compliance: Throughout project construction
Person/Agency Responsible for Monitoring: LCSD, contractors, County Coroner, and Native American Heritage Commission (as required)
Monitoring Frequency: Throughout project construction
Evidence of Compliance: Documentation of any human remains encountered and reporting to the County Coroner and/or NAHC

Geology and Soils

Mitigation Measure GEO-1 (Adhere to Geotechnical Report Recommendations): Adherence to all project specific recommendations of the Geotechnical Investigation Report shall be required during construction of the proposed project.

Timing for Implementation/Compliance: During design and throughout project construction
Person/Agency Responsible for Monitoring: LCSD
Monitoring Frequency: During design and throughout project construction
Evidence of Compliance: Project plans and construction being in compliance with recommendations of the Geotechnical Investigation Report

Mitigation Measure GEO-2 (Inadvertent Discovery Protocol – Paleontological Resources): If a paleontological discovery is made during construction, the contractor shall immediately cease all work activities in the vicinity (within approximately 100 feet) of the discovery and shall immediately contact LCSD. A qualified paleontologist shall be retained by LCSD to observe all subsequent grading and excavation activities in the area of the find and shall salvage fossils as necessary. The paleontologist shall establish procedures for paleontological resource surveillance and shall establish, in cooperation with the project developer, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of fossils. If major paleontological resources are discovered that require temporarily halting or redirecting of grading, the paleontologist shall report such findings to LCSD. The paleontologist shall determine appropriate actions, in cooperation with LCSD, that ensure proper exploration and/or salvage. Excavated finds shall first be offered to a state-designated repository such as the Museum of Paleontology, University of California, Berkeley, or the California Academy of Sciences. Otherwise, the finds shall be offered to LCSD for purposes of public education and interpretive displays. The paleontologist shall submit a follow-up report to LCSD that shall include the period of inspection, an analysis of the fossils found, and the present repository of fossils.

Timing for Implementation/Compliance: Throughout project construction
Person/Agency Responsible for Monitoring: LCSD, contractors, qualified paleontologist (as required)
Monitoring Frequency: Throughout project construction
Evidence of Compliance: Documentation of any paleontological resources encountered, and implementation of appropriate actions as recommended by the qualified paleontologist