ENVIRONMENTAL INITIAL STUDY

INITIAL STUDY CHECKLIST
PROPOSED MITIGATED NEGATIVE DECLARATION
Garberville Sanitary District
Robertson/Wallan/Hurlbutt Tanks Replacement Project

Prepared by:
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October 2023

Abbreviations and Acronyms

AB	Assembly Bill
ACM	asbestos-containing materials
AE	Agriculture Exclusive
AHERA	Asbestos Hazard Emergency Response Act
APN	Assessor's Parcel Number
BMP	best management practice
CAC	Certified Asbestos Consultant
CalEEMod	California Emissions Estimator Model
CALFIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Division of Occupational Safety and Health
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
CCE	Community Choice Energy
CCR	California Code of Regulations
CDFW	California Department of Fish & Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	chlorofluorocarbon
cfs	cubic feet per second
CGP	Construction General Permit
CGS	California Geological Survey
CH4	methane
CMP	corrugated metal pipe
CO	carbon monoxide
CO2	carbon dioxide
CRHR	California Register of Historical Resources
CWA	Clean Water Act
DDW	SWRCB Division of Drinking Water
District	Garberville Sanitary District
DOC	California Department of Conservation
DOORS	Diesel Off-Road Online Reporting Systems
DPM	diesel particulate matter
DTSC	California Department of Toxic Substances Control
DWR	Department of Water Resources
EIR	environmental impact report
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHSZ	Fire Hazard Severity Zone
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
GFPD	Garberville Fire Protection District
GHG	greenhouse gas
gpm	gallons per minute
GSD	Garberville Sanitary District
H_2S	Hydrogen sulfide
HBGS	Humboldt Bay Generating Station
HFC	hydrofluorocarbon
HP	horsepower
HWMA	Humboldt Waste Management Authority
IDA	International Dark-Sky Association
IS	Initial Study
LBP	Lead-based paint
LCSC	Lead-containing surface coatings
LSA	Lake and Streambed Alteration
LUST	leaking underground storage tank
MCAQMD	Mendocino County Air Quality Management District
MDD	maximum day demand
MMTCO2e	million metric tons of CO2 equivalent
MND	Mitigated Negative Declaration
MTCO2e/yr	metric tons of CO2 equivalent per year
N2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCAB	North Coast Air Basin
NCRWQCB	North Coast Regional Water Quality Control Board
NCUAQMD	North Coast Unified Air Quality Management District
NEMA	National Electrical Manufacturers Association
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NO2	nitrogen dioxide
NOA	naturally-occurring asbestos
NOI	Notice of Intent
NOx	nitrous oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resource Conservation Service
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
O3	Ozone
OHWM	Ordinary High-Water Mark
OPR	Governor's Office of Planning & Research
PF	Public Facility
PFC	perfluorocarbon
PG&E	Pacific Gas & Electric
PLC	programmable logic controller
PM2.5	Particulate Matter smaller than 2.5 microns in diameter
PM10	Particulate Matter smaller than 10 microns in diameter
ppm	parts per million
PRC	Public Resources Code
PRV	pressure reducing valve
PVC	polyvinyl chloride
QSD	Qualified SWPPP Developer
RCEA	Redwood Coast Energy Authority
ROG	reactive organic gases
ROW	right-of-way
RS	Residential Suburban

Abbreviations and Acronyms (cont'd)

SB	Senate Bill
sf	square feet
SF6	hexafluoride
SMA	Streamside Management Area
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO2	sulfur dioxide
SRA	State Responsibility Area
SSC	Species of Special Concern
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
SWTP	surface water treatment plant
TAC	toxic air contaminants
TDH	total dynamic head
THPO	Tribal Historic Preservation Officer
TNW	Traditional Navigable Waterway
TP	Test Pit
USACE	United States Army Corp of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish & Wildlife Service
USGS	United States Geological Survey
VMT	vehicle miles traveled
VOC	volatile organic compounds
WRA	William Rich & Associates
WSE	water surface elevation

Garberville Sanitary District
ENVIRONMENTAL CHECKLIST FORM

1. **Project Title:** Robertson/Wallan/Hurlbutt Tanks Replacement Project

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

   Garberville Sanitary District
   P.O. Box 211
   Garberville, CA 95542

3. **Contact Person and Phone Number**: Jennie Short – Project Manager, 707-923-9566 (office), 707-223-4567 (cell)

4. **Project Location:** The project is located within the boundaries of the Garberville Sanitary District (GSD; the District) in the unincorporated community of Garberville in northern California, approximately 52 miles south-southeast of Eureka along the south fork of the Eel River and adjacent to U.S. Highway 101 in Humboldt County (Figure 1; United States Geological Survey [USGS] Garberville 7.5-minute Quadrangle, Township 4 South, Range 3 East, Section 24, Township 4 South, Range 4 East, Sections 18 and 19, Humboldt Meridian). The project is located in several separate areas in and around the town of Garberville:
   - the Main/Hurlbutt Tank and Upper Maple Lane Pump Station site (Figures 1 and 2),
   - the Wallan Tank and Wallan Pump Station site (Figures 1 and 2),
   - the Arthur/Alderpoint Pump Stations site (Figures 1 and 2),
   - the Robertson Tank site (Figure 1), and
   - the Tobin Well site (Figure 1).

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

   Garberville Sanitary District
   P.O. Box 211
   Garberville, CA 95542

6. **General Plan Designation:** See Table 1 in Section 2.1 Project Location and Setting.

7. **Zoning:** Residential Suburban (RS-B-5(5)), Agriculture Exclusive (AE-B-6), Residential One Family (R-1), etc. See Table 1 in Section 2.1 Project Location and Setting.

8. **Existing Facilities and Use:** The District serves the unincorporated town of Garberville and surrounding area with sewer, wastewater, and water services. The District was formed in 1932 for the purpose of providing sanitary sewer services. After purchasing the privately held Garberville Water Company in 2004, the District began providing drinking water to customers in the district. The District owns, operates, maintains, and manages the public drinking water system (CA1210008), which includes two drinking water sources, water treatment facilities, three finished water storage tanks currently in service, multiple pumping stations, and a distribution piping network. The District's service area covers 581 acres, and the water system serves approximately 1,200 people in the Garberville community through approximately 470 service connections. The California State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) has jurisdiction over the District's drinking water system. For further detail of the project site's existing condition, see Section 2.0 Project Description.

9. **Description of Project:** The District proposes to replace the existing 180,000-gallon, in-ground, concrete, finished water storage tank (Hurlbutt/Main Tank) and a 20,000-gallon, failing, redwood drinking water storage tank (Wallan Tank) with two new increased capacity tanks. In addition, the failing Robertson Tank, which has been taken out of service, would be demolished. The new Main Tank would be an in-ground, approximately 550,000-gallon, pre-stressed concrete tank located on an adjacent parcel and similar elevation to the existing tank. The existing Wallan Tank would be replaced with an approximately 77,000-gallon bolted steel tank. Both of the existing tanks in operation are leaking and lack sufficient storage capacity for maximum daily consumption and fire suppression; they also do not meet current seismic design standards.

In addition, the District proposes to replace or upgrade three booster pump stations (Upper Maple Lane Pump Station, Arthur/Alderpoint Pump Station, and Wallan Pump Station). The existing Upper Maple Lane Pump Station is located in the existing Hurlbutt Tank and would be demolished when the Hurlbutt Tank is demolished. A new Upper Maple Lane Pump Station would need to be constructed at the site of the new Main Tank. The existing Arthur Pump Station is in poor condition and has operational deficiencies that would be improved when this pump station is replaced by the Alderpoint Pump Station. The Wallan Pump Station is in poor condition and requires upgrades to meet the operational requirements of the new Wallan Tank. New backup generators would be installed at each replaced or upgraded booster pump station and at the Tobin Well.

Some new segments of distribution piping would need to be installed as part of this project in order to connect the new tanks and pump stations to the existing distribution system.

Regarding operations, the proposed project would alter the location of some of GSD's water storage and conveyance infrastructure but would not change the type of ongoing operations. For further detail of the proposed project, see Section 2.0 Project Description.

10. Surrounding Land Uses and Setting: The project is located in several separate areas in and around the town of Garberville:

- the Main/Hurlbutt Tank and Upper Maple Lane Pump Station site (Figures 1 and 2),
- the Wallan Tank and Wallan Pump Station site (Figures 1 and 2),
- the Arthur/Alderpoint Pump Stations site (Figures 1 and 2),
- the Robertson Tank site (Figure 1), and
- the Tobin Well site (Figure 1).

The project is located east of the South Fork Eel River and U.S. Highway 101. The Main/Hurlbutt Tank and Upper Maple Lane Pump Station site is developed with rural residential uses and existing District water system infrastructure. It is surrounded by timberlands to the east, the urbanized Garberville downtown to the north, and U.S. Highway 101 to the west and south. The Wallan Tank and Wallan Pump Station site is developed with rural residential uses and existing District water system infrastructure. It is surrounded by rural residential and agricultural uses. The Arthur/Alderpoint Pump Stations sites are developed with the existing Arthur Pump Station and a California Department of Forestry and Fire Protection (CALFIRE) station respectively and are surrounded by rural residential and agricultural uses as well as forested areas. The Robertson Tank site is developed with existing District water system infrastructure and is surrounded by rural residential and agricultural uses, as well as forested areas. The Tobin Well site is developed with existing District water system infrastructure and is surrounded by single-family residential development.

11. Other public agencies whose approval is required (for example, permits, financing approval, or participation agreement): GSD 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:

- California Department of Water Resources – Financing Approval
- California State Water Resources Control Board Division of Financial Assistance – Financing Approval
- Humboldt County – General Plan Conformance Review, Special Permit, Encroachment Permit
- California Department of Fish and Wildlife – Lake and Streambed Alteration (LSA) Agreement
- U.S. Army Corps of Engineers – Section 404 Water Quality Permit
- North Coast Regional Water Quality Control Board – Section 401 Water Quality Certification and/or Waste Discharge Requirements
- California Department of Transportation (Caltrans) – Encroachment Permit
- North Coast Regional Water Quality Control Board – Construction General Permit
- North Coast Air Quality Management District – Authority to Construct, Permits to Operate

12. Tribal Consultation: The District requested a list of regional tribes from the Native American Heritage Commission (NAHC). Under Assembly Bill (AB) 52, the District sent notification letters to local Native American tribes on July 25,

2023 (Bear River Band of the Rohnerville Rancheria, Round Valley Reservation/Covelo Indian Community, and Wailaki Tribe). No 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 Robertson/Wallan/Hurlbutt Tanks Replacement Project.

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 Robertson/Wallan/Hurlbutt Tanks 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 Robertson/Wallan/ Hurlbutt Tanks Replacement Project in the unincorporated community of Garberville. 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, GSD 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 would 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 District will circulate the IS/MND to the State Clearinghouse of the Governor's Office of Planning and Research for distribution and a 30-day review period.

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

Jennie Short, Project Manager
Garberville Sanitary District
P.O. Box 211, Garberville, CA 95542
jmshort@garbervillesd.org

SECTION 2.0

PROJECT DESCRIPTION

2.1 Project Location and Setting

Regional Setting

The Garberville Sanitary District is located in the unincorporated community of Garberville in northern California, approximately 52 miles south-southeast of Eureka along the south fork of the Eel River and adjacent to U.S. Highway 101 in Humboldt County (Figure 1; USGS Garberville 7.5-minute Quadrangle, Township 4 South, Range 3 East, Section 24, Township 4 South, Range 4 East, Sections 18 and 19, Humboldt Meridian). Garberville has a temperate Mediterranean climate characterized by mild, wet winters and warm, dry summers.

Project Location

The project is located within the boundaries of the Garberville Sanitary District (GSD; the District) in the unincorporated community of Garberville in northern California, approximately 52 miles south-southeast of Eureka along the south fork of the Eel River and adjacent to U.S. Highway 101 in Humboldt County (Figure 1; USGS Garberville 7.5-minute Quadrangle, Township 4 South, Range 3 East, Section 24, Township 4 South, Range 4 East, Sections 18 and 19, Humboldt Meridian). The project is located in several separate areas in and around the town of Garberville:

- the Main/Hurlbutt Tank and Upper Maple Lane Pump Station site (Figures 1 and 2),
- the Wallan Tank and Wallan Pump Station site (Figures 1 and 2),
- the Arthur/Alderpoint Pump Stations site (Figures 1 and 2),
- the Robertson Tank site (Figure 1), and
- the Tobin Well site (Figure 1).

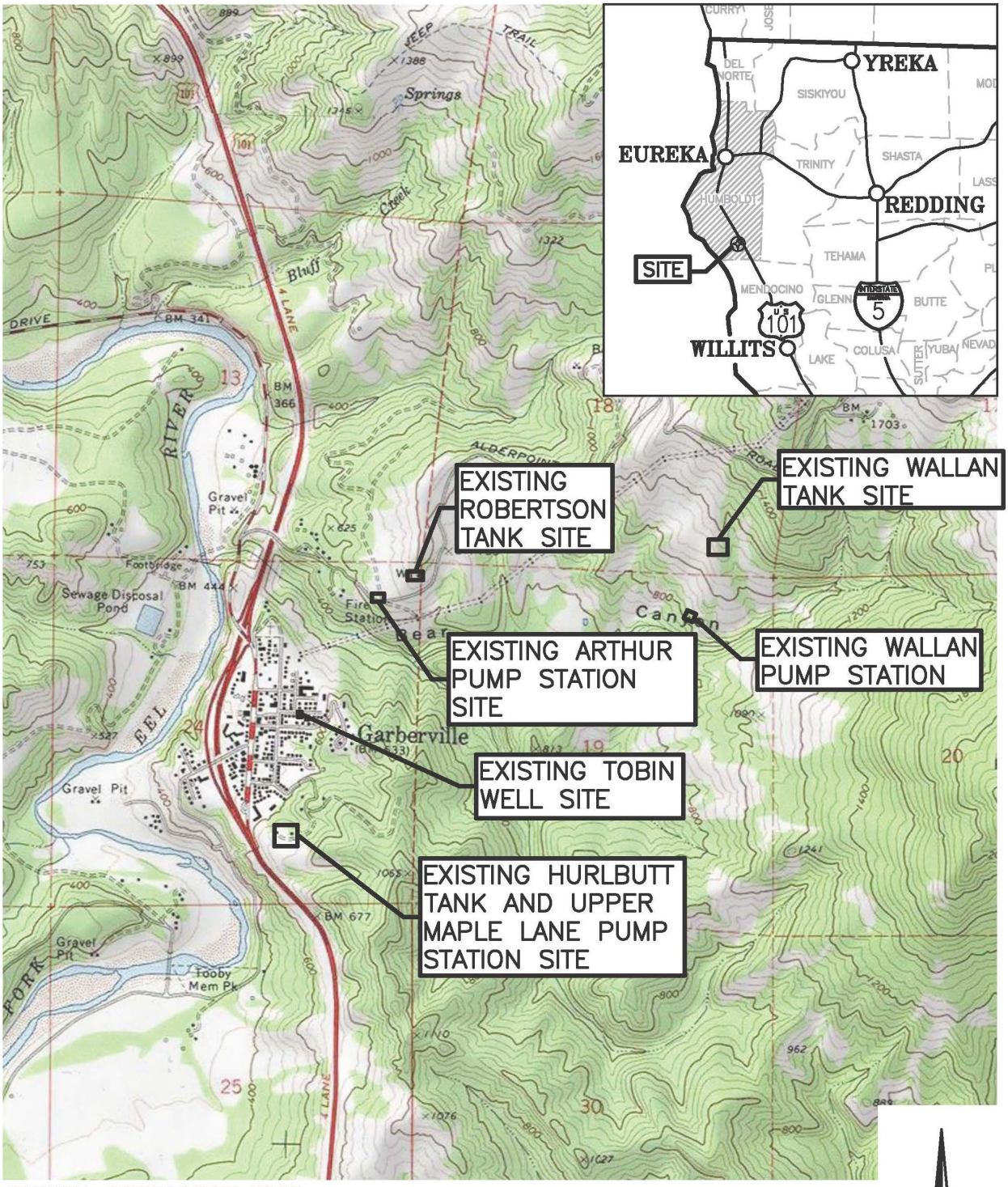
See Table 1 for the project location Assessor's parcel numbers (APNs).

Table 1. Assessor's Parcel Numbers, General Plan, Zoning Designations

Proposed Project Component	APN	General Plan Designation[a]	Zoning Designation[b]
Storage: Existing Main Tank	032-211-011	P	RS-B-5(5)
Storage: Proposed Main Tank	032-211-021	RL	RS-B-5(5)
Storage: Existing Wallan Tank	223-191-006	RE1-5	AE-B-6
Storage: Proposed Wallan Tank	223-191-006	RE1-5	AE-B-6
Storage: Existing Robertson Tank	223-181-020	RA5-20	AE-B-6
Pumping: Existing Upper Maple Lane Pump Station	032-211-011	P	RS-B-5(5)
Pumping: Existing Arthur Pump Station	223-181-025	RA5-20	AE-B-6
Pumping: Proposed Alderpoint Pump Station	223-183-003	PF	AE-B-6
Pumping: Existing Wallan Pump Station	223-191-011	RA40	AE-B-6
Electrical Upgrades: Standby Generators	Various	Various	Various
Standby Generator: Proposed Upper Maple Lane Pump Station	032-211-021	RL	RS-B-5(5)
Standby Generator: Proposed Alderpoint Pump Station	223-183-003	PF	AE-B-6
Standby Generator: Existing Wallan Pump Station	223-191-011	RA40	AE-B-6
Standby Generator: Existing Tobin Well	032-135-002	P	R-1
Instrumentation and Controls Improvements	Various	Various	Various
Distribution Piping	Various	Various	Various

a: General Plan Designations:
P: Public Lands
RL: Residential Low Density
RE: Residential Estates
RA: Residential Agriculture
PF: Public Facility

b: Zoning Designations:
RS: Residential Suburban
AE: Agriculture Exclusive
R-1: Residential One Family



SOURCE: GARBERVILLE USGS 7.5 MINUTE QUADRANGLE

N

1"=2000'±

SHN	Garberville Sanitary District Garberville Water System Improvements Garberville, California	Site Location Map Existing Features SHN 022067
	August 2023 | 022067-SITE-LCTN	Figure 1

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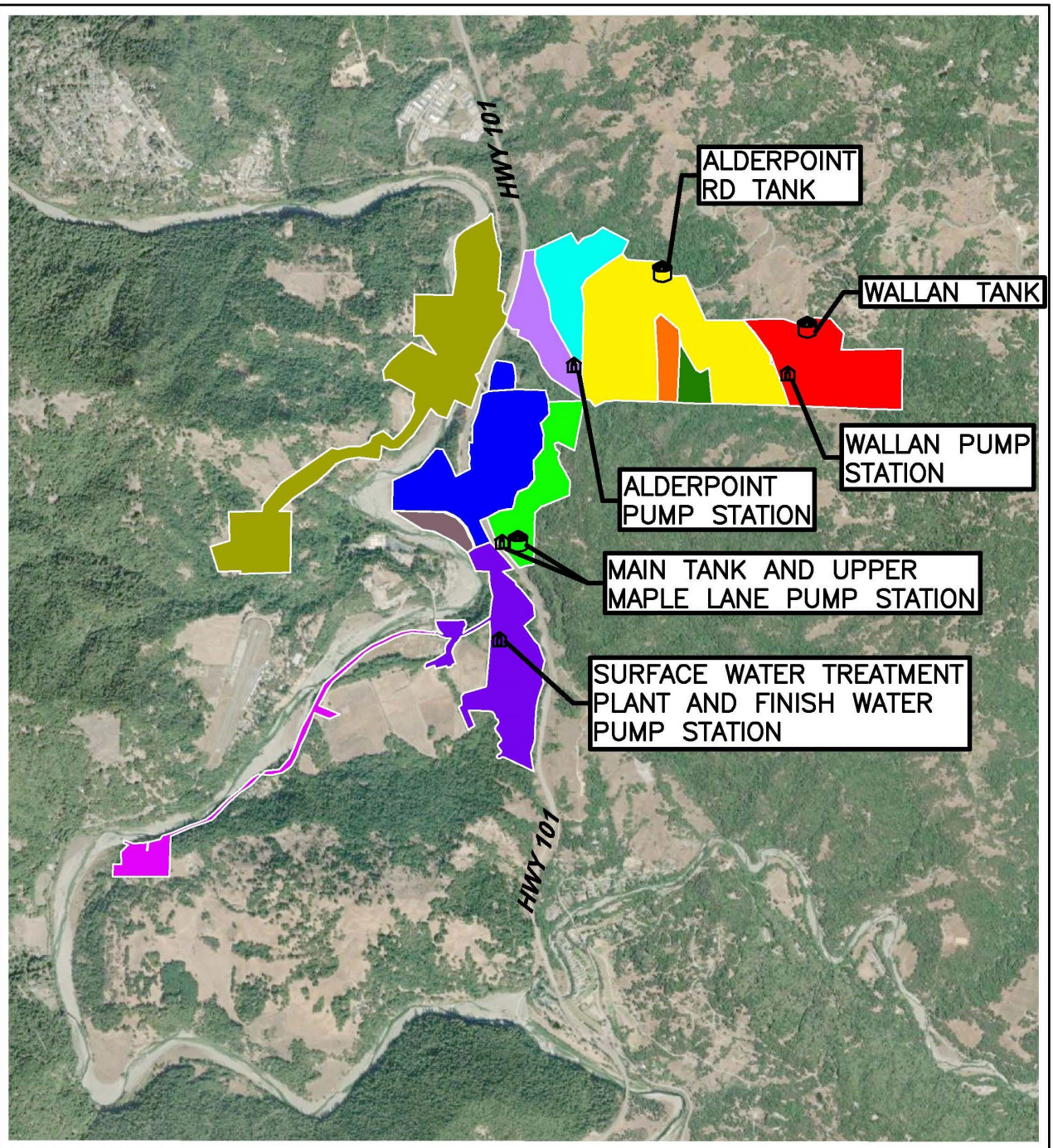

Garberville Sanitary District
Garberville Water System Improvements
Garberville, California

Water System Pressure Zone Map

SHN 022067

March 2023 | 022067-WTR-SYST-PRESS-ZONE | Figure 2

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Surrounding Land Uses and Existing Setting

The project is located east of the South Fork Eel River and U.S. Highway 101. The Main/Hurlbutt Tank and Upper Maple Lane Pump Station site is developed with rural residential uses and existing District water system infrastructure. It is surrounded by timberlands to the east, the urbanized Garberville downtown to the north, and U.S. Highway 101 to the west and south. The Wallan Tank and Wallan Pump Station site is developed with rural residential uses and existing District water system infrastructure. It is surrounded by rural residential and agricultural uses. The Arthur/Alderpoint Pump Stations sites are developed with the existing Arthur Pump Station and a CALFIRE station respectively and are surrounded by rural residential and agricultural uses as well as forested areas. The Robertson Tank site is developed with existing District water system infrastructure and is surrounded by rural residential and agricultural uses as well as forested areas. The Tobin Well site is developed with existing District water system infrastructure and is surrounded by single-family residential development.

2.2 Existing Conditions

Overview

The Garberville community is located in northern California, approximately 52 miles south-southeast of Eureka on the south fork of the Eel River and adjacent to U.S. Highway 101 in Humboldt County (Figure 1). Garberville has a population of 818 people according to the 2020 Decennial Census Program estimate.

The District serves the unincorporated town of Garberville and surrounding area with sewer, wastewater, and water services. The District was formed in 1932 for the purpose of providing sanitary sewer services. After purchasing the privately held Garberville Water Company in 2004, the District began providing drinking water to customers in the district. The District owns, operates, maintains, and manages the public drinking water system (CA1210008), which includes two drinking water sources, water treatment facilities, three finished water storage tanks currently in service, multiple pumping stations, and a distribution piping network. The District's service area covers 581 acres, and the water system serves approximately 1,200 people in the Garberville community through approximately 470 service connections. The California State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) has jurisdiction over the District's drinking water system.

Water System Facilities

Sources

South Fork Eel River Infiltration

The South Fork of the Eel River Infiltration Gallery, located at N 19222330 E 6059360 CCS83, serves as the primary water source for the District. Originally installed in 1940, the river intake system consists of perforated pipes that run horizontally below the surface of the riverbed. These pipes feed into a 16-inch-diameter steel and polyvinyl chloride (PVC) pipe casing within a vertically oriented 4-foot-diameter corrugated metal pipe (CMP) over 40 feet in height, which extends above the 100-year flood level on the east riverbank. Situated within the 16-inch steel casing are two 20-horsepower (HP) variable speed vertical submersible turbine pumps, each with a rated capacity of 350 gallons per minute (gpm) at 153 feet total dynamic head (TDH). The bottom of the pumps sits at an elevation of 289 feet and they discharge to a common 6-inch pipeline that transports raw water to the District's surface water treatment plant (SWTP) on Tooby Ranch Road. The current raw water pumps were installed in 2014 and only one pump operates at a time. A permanent backup generator at the raw water intake can power the pumps during a utility power outage.

Surface water supply capacity for the District is permitted through both a State Water Resources Control Board Right to Divert and Use Water License 3404 (Permit 5487, Application 9686) and Permit 20789 (Application 29981). Together, these allow the District to divert up to 0.75 cubic feet per second (cfs) and, based on the California Department of Fish and Wildlife Lake or Streambed Alteration Agreement Notification No 1600-2012-0030-R1, is further limited to no more than 10% of stream flow as measured at the United States Geological Survey (USGS) gauge station number 11476500 at Miranda. The total quantity of water permitted to be diverted on an annual basis is 542.2 acre-feet per year.

Tobin Well

The Tobin Well, located at 510 Pine Lane, serves as a backup water source for the District and provides water during periods when the Eel River exhibits high turbidity. In 2014, the District installed a duplex variable speed pump system designed to supply 100 gpm at 173 feet TDH. Level controls vary the pump's output to maintain a preset water surface elevation, based on the recharge capacity of the well. Significant drawdown has been noted in the past. Disinfection of the well water is achieved via 12.5% sodium hypochlorite injection drip dosed of 0.5-1.0 milligrams per liter. This source is used very infrequently, primarily during emergencies, such as in late 2017 when the underground chlorine contact chamber failed at the treatment plant.

Treatment

The District's SWTP is located on Tooby Ranch Road at a finished floor elevation of 388 feet. The SWTP began operating in 2014 to replace the aging water treatment plant that was previously located next to the Hurlbutt finished water storage tank at an elevation of approximately 700 feet. SWTP treatment processes include flocculation, direct filtration, and chlorination, followed by finished water pumping into the distribution system. Polymer is injected as a coagulant and filter aid into the raw water supply pipe upstream of the 5,500-gallon, baffled flocculation tank, which is an 8-foot-diameter, 14-foot-long, horizontal cylindrical pressure tank rated for 150 pounds per square inch, gage.

Downstream of the flocculator are two Loprest 9-foot-diameter vertical pressure filters with 6-foot straight shell length. The filters contain 18 inches of filter sand and 12 inches of anthracite with two grades of media support gravel and include associated piping, valves, controls, and accessories. The filtration system requires periodic backwashing of the filter media with finished water. The spent backwash water is stored in a 35,000-gallon, 18-foot diameter welded steel storage tank. Two backwash recycling pumps draw clearwater from the spent backwash water storage tank and inject it back into the treatment system upstream of the filters. Sediment is periodically pumped from the spent backwash tank and trucked to a disposal site.

After exiting the filters, treated water is disinfected using liquid sodium hypochlorite, which is injected upstream of the chlorine contact chamber. That chamber provides chlorination detention time prior to the water entering the distribution system. Originally, the SWTP was constructed with an underground chlorine contact chamber of 30-inch serpentine pipe. That pipe failed in November 2017 and was replaced in 2018 with an aboveground, 20,000-gallon, steel baffled pressure vessel, which provides disinfection contact time.

Duplex finished water pumps located downstream of the chlorine contact tank operate in series with the raw water pumps and deliver finished water to the distribution system and to the Hurlbutt Tank, which is the main finished water storage tank in the District's water system.

The SWTP has a 60-kilowatt, permanently mounted, diesel generator with a fuel tank capacity that will allow for 72 hours of continuous operation. This generator can power the entire SWTP facility during utility power outages.

Distribution and Storage Facilities

The current distribution system includes three active booster pump stations, three operating finished water storage tanks, and five main pressure zones that supply water to customers throughout the District.

Pressure Zones and Booster Stations

After leaving the treatment plant, finished water is pumped into the distribution system through an 8-inch main that runs up Sprowl Creek Road to the downtown distribution piping network where it also connects to an 8-inch pipe that runs to the Hurlbutt finished water storage tank. The Hurlbutt Tank is located on Assessor's parcel number (APN) 032-211-012 at an elevation of approximately 700 feet. The Hurlbutt Tank supplies water to pressure Zones 1 and 2, which accounts for approximately 85.1% of the District's service connections. The tank gravity feeds Zone 1 connections, including those in the downtown core area and a few subzones at lower elevations, which are fed through pressure reducing valves (PRVs). Two vertical submersible Upper Maple Lane Booster Pumps mounted within the Hurlbutt Tank supply water to Zone 2 customers, which consist of residences on Hillcrest Drive and Maple Lane located at elevations above the Hurlbutt Tank.

Previously, the Oak Street Pump Station pumped water to Zone 2 connections. The corrugated metal pump house for the Oak Street Pump Station is now in very poor condition.

The Hurlbutt Tank also gravity feeds the Arthur Pump Station. Situated at an elevation of 659 feet adjacent to Alderpoint Road near the intersection of Arthur Road, the Arthur Pump Station transfers water to the Alderpoint Tank, sited at a base elevation of 915 feet on the north side of Alderpoint Road. The Alderpoint Tank feeds Zone 3 (through a pressure reducing station) and Zone 4 connections. Zones 3 and 4 account for 13.4% of the District's water service connections. The Alderpoint Tank also supplies water to the Wallan Pump Station, at an elevation of 866 feet on the south side of Wallan Road. The Wallan Pump Station pumps water up to the Wallan Tank, the highest tank in the system at an elevation of 1,155 feet. The Wallan Tank serves Zone 5 customers, which account for the remaining 1.5% of service connections in the District's service area.

Table 2 summarizes the five major pressure zones that supply drinking water to service connections throughout the District's service area. Refer to Figure 2 for a map of the District's service area and pressure zones.

Table 3 lists the three booster pump stations in service within the District's distribution system.

Table 2. Pressure Zones and Associated Parameters, Garberville Sanitary District

Pressure Zone	No. of Connec-tions[a]	Elevation Range[b] of Connections (feet)	Portion of Total Water Consumed	Associated Storage Tank	Notes
1	379	Downtown: 497-614; With PRVs: 326-386	80.98%	Hurlbutt	This zone includes all customers that are served by gravity feed from the Hurlbutt Tank, including sub-zones that have PRVs to decrease the pressure. Zone 1 includes sub-zones 1, 1A, 1B, 1C, 1D, and 1E.
2	21	666-725	2.74%	Hurlbutt	This zone is supplied water from the vertical pumps and pneumatic tanks at the Hurlbutt Tank and includes the houses along Hillcrest Drive and Upper Maple Lane.
3	20	677-688	3.84%	Alderpoint	This zone includes customers located primarily on Arthur Road. The Robertson Tank supplied this zone until spring 2022 when the District removed the tank from service and installed a pressure reducing valve (PRV) at the intersection of Alderpoint Rd and Arthur Rd so this zone could be served by Alderpoint Tank.
4	43	627-870	8.31%	Alderpoint	This zone includes the majority of the residences on the north side of Bear Canyon, and includes sub-zones 4, 4A, and 4B.
5	7	868-1108	4.13%	Wallan	This is the highest-pressure zone in the system.
Total	**470**	**326 - 1108**	**100.00%**		

a. Number of connections were tallied based on unique addresses from 2021 usage data.
b. Elevation ranges are approximated based on Google Earth elevation data for residences in each pressure zone.

Table 3. Existing Distribution System Booster Pump Stations in Operation

Pump Station	Type & No. of Pumps	Number & Duty	Rated capacity (gpm[a])	Rated TDH[b] (feet)	Station elevation (feet)	Water Transfer Destination
Upper Maple Lane	Vertical turbine submersible	2 x 100%	60	175	703	Zone 2 connections
Arthur	Horizontal end suction	2 x 100%	70	330	659	Alderpoint Tank
Wallan	Horizontal inline	2 x 100%	50	300	866	Wallan Tank

a. gpm: gallons per minute
b. TDH: total dynamic head

Water Storage Tanks

Storage capacity for the District's drinking water system is currently provided by three water storage tanks located at varying elevations in the District's service area. With the exception of Zone 2, all service connections are supplied by gravity feed from the storage tanks. The Hurlbutt Tank is the main and oldest finished water storage tank in operation. The below-ground concrete tank has a capacity of approximately 180,000 gallons. This tank is located adjacent to a private residence owned by the Swaffar/Hurlbutt family, which owned and operated the Garberville Water Company before selling it to the District in 2004. The Alderpoint Tank is a 200,000-gallon capacity welded steel tank installed in 2015. The Wallan tank is a 20,000-gallon redwood tank constructed in 1978. The Wallan Tank is leaking, and the District lowered its operating water surface elevation (WSE) in order to minimize leakage. The District installed a vertical polyethylene tank adjacent to the Wallan Tank to serve as temporary backup until a replacement tank can be installed.

Table 4 provides details for the District's three in-service water storage tanks.

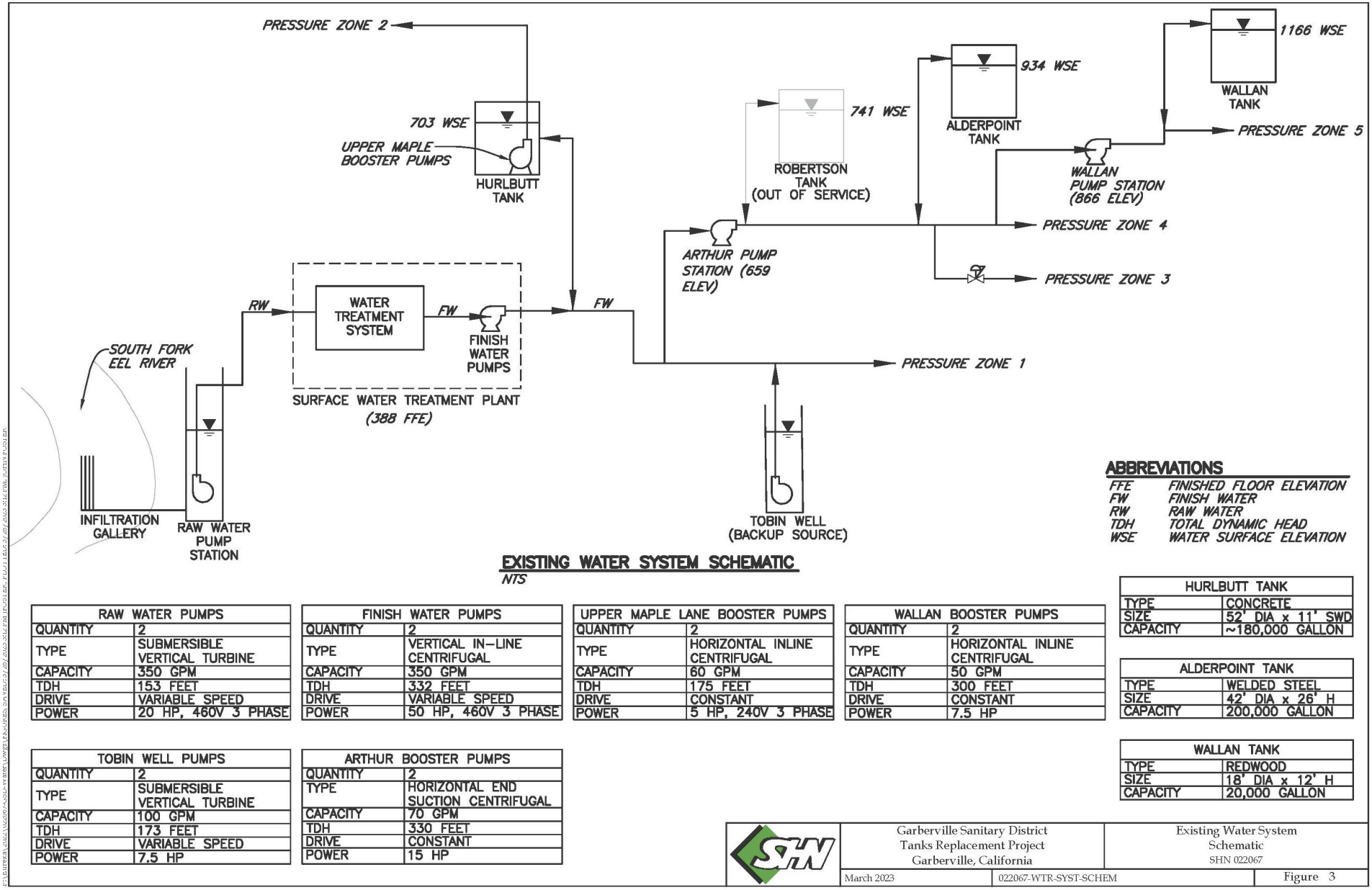
Table 4. Existing Water Storage Tanks Currently in Service

Tank Name	Tank Type	Base Elevation (feet)	Maximum WSE[a] (feet)	Capacity (gallons)	Pressure Zone(s) Served	Comments
Hurlbutt (Main)	In-Ground Concrete	692	703	180,000	1 & 2	Constructed in 1940. Primary storage from treatment plant. All water in the system is stored in this tank prior to being pumped to higher elevation zones.
Alderpoint	Welded Steel	915	934.3	200,000	3 & 4	Installed in 2015. Water for Zone 5 connections passes through this tank before it is transferred to Wallan Tank.
Wallan	Redwood	1,155	1,165.5	20,000	5	Constructed in 1978, operating at reduced water level due to leak. Adjacent poly tank has been installed as temporary backup.
Total Current Storage Tank Capacity				**400,000**	**All**	

a. WSE: water surface elevation

A fourth water storage tank, the Robertson Tank, is a partially buried 50,000-gallon concrete tank installed in 1922 that served pressure Zone 3. The Robertson Tank was taken out of service in February 2022 due to tank failure and slope stability issues adjacent to the tank, and in response to a compliance order from the State Water Resources Control Board. The tank is slated to be demolished as part of the proposed Tanks Replacement Project. The Alderpoint Tank now serves pressure Zone 3 through a PRV. With the Robertson Tank permanently out of service, the District has a total current finished water storage capacity of 400,000 gallons.

Figure 3 provides an overall schematic of the District's water system facilities. In general, records for the distribution piping network are very lacking. Neither a map of the distribution system nor an accurate record of pipe materials, sizes, and conditions exists for the District's distribution system.



EXISTING WATER SYSTEM SCHEMATIC

NTS

ABBREVIATIONS

FFE	FINISHED FLOOR ELEVATION
FW	FINISH WATER
RW	RAW WATER
TDH	TOTAL DYNAMIC HEAD
WSE	WATER SURFACE ELEVATION

RAW WATER PUMPS	
QUANTITY	2
TYPE	SUBMERSIBLE VERTICAL TURBINE
CAPACITY	350 GPM
TDH	153 FEET
DRIVE	VARIABLE SPEED
POWER	20 HP, 460V 3 PHASE

FINISH WATER PUMPS	
QUANTITY	2
TYPE	VERTICAL IN-LINE CENTRIFUGAL
CAPACITY	350 GPM
TDH	332 FEET
DRIVE	VARIABLE SPEED
POWER	50 HP, 460V 3 PHASE

UPPER MAPLE LANE BOOSTER PUMPS	
QUANTITY	2
TYPE	HORIZONTAL INLINE CENTRIFUGAL
CAPACITY	60 GPM
TDH	175 FEET
DRIVE	CONSTANT
POWER	5 HP, 240V 3 PHASE

WALLAN BOOSTER PUMPS	
QUANTITY	2
TYPE	HORIZONTAL INLINE CENTRIFUGAL
CAPACITY	50 GPM
TDH	300 FEET
DRIVE	CONSTANT
POWER	7.5 HP

TOBIN WELL PUMPS	
QUANTITY	2
TYPE	SUBMERSIBLE VERTICAL TURBINE
CAPACITY	100 GPM
TDH	173 FEET
DRIVE	VARIABLE SPEED
POWER	7.5 HP

ARTHUR BOOSTER PUMPS	
QUANTITY	2
TYPE	HORIZONTAL END SUCTION CENTRIFUGAL
CAPACITY	70 GPM
TDH	330 FEET
DRIVE	CONSTANT
POWER	15 HP

HURLBUTT TANK	
TYPE	CONCRETE
SIZE	52' DIA x 11' SWD
CAPACITY	~180,000 GALLON

ALDERPOINT TANK	
TYPE	WELDED STEEL
SIZE	42' DIA x 26' H
CAPACITY	200,000 GALLON

WALLAN TANK	
TYPE	REDWOOD
SIZE	18' DIA x 12' H
CAPACITY	20,000 GALLON

SHN	Garberville Sanitary District Tanks Replacement Project Garberville, California	Existing Water System Schematic SHN 022067
	March 2023 | 022067-WTR-SYST-SCHEM	Figure 3

Electrical and Controls System

The tank sites in the District's system communicate to pump stations via radio signal. The Hurlbutt Tank calls for water by sending a signal to the SWTP on Tooby Ranch Road, which in turn signals to the raw water and finish water pumps to turn on. Alderpoint Tank and Wallan Tank similarly communicate via radio to their respective pump stations to turn on/turn off based on pre-set tank water levels.

The water treatment plant has a permanent backup generator, which has the capacity to provide full electrical backup of the treatment plant during utility outages. The raw water pump station also has a permanently installed backup generator. No other pump stations have a stationary backup generator. The District has a single trailer-mounted generator that the operations staff moves from location to location to back up the other pump stations in the system during power outages.

Water Demand and Required Tank Storage

Existing Water Demand

The District provided monthly water usage data for all water system connection from June 2014 through December 2021 for each pressure zone. From this data, average monthly water usage was calculated by zone and for the total system, as shown in Figure 4. The bar colors in Figure 4 represent water consumption by pressure zone, with Zone 1 connections consuming the majority of the District's water use.

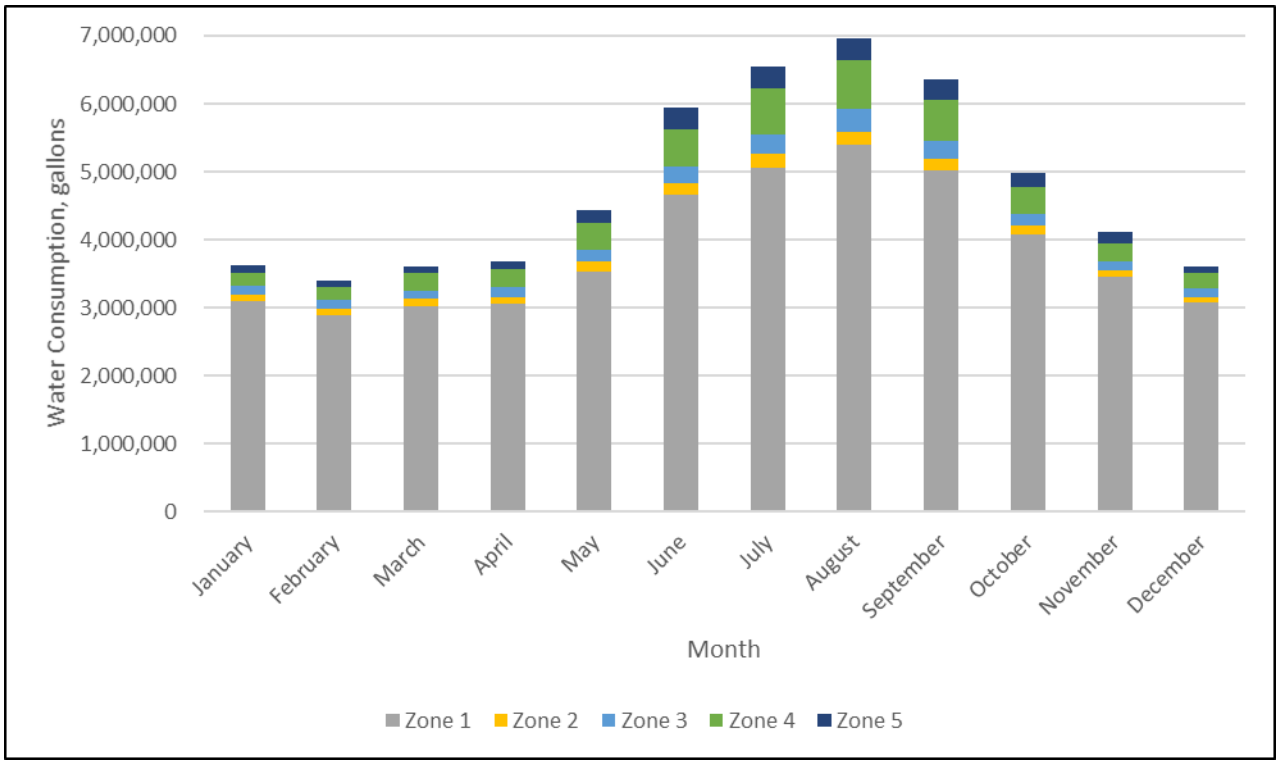


Figure 4. Average Monthly Water Usage, Garberville Sanitary District, 2014-2022.

From the 2014-2021 customer water usage data, maximum month demand was selected for the month of the highest consumption for each pressure zone. Maximum day demand (MDD) was determined using procedures outlined in 22 CCR § 64554, by dividing the maximum monthly usage by number of days in the month and multiplying by a peaking factor of 1.5, the minimum provided in the statute. Table 5 provides the MDD for each of the District's five pressure zones. The total MDD for all five zones combined is 410,585 gallons.

Table 5. Maximum Day Demand for Each Pressure Zone

Pressure Zone	Maximum Monthly Usage (gallons)	Month of Maximum Usage	Peaking Factor	Maximum Day Demand (gallons)
1	6,056,498	June 2014	1.5	302,825
2	253,867	September 2020	1.5	12,693
3	473,392	August 2017	1.5	22,906
4	962,153	August 2017	1.5	46,556
5	512,092	June 2014	1.5	25,605
			Total	**410,585**

The District does not have any industrial customers. Commercial customers like hotels and restaurants have a significant seasonal variation in their consumption. The District increases the flow rate at the raw water intake and SWTP pumps to increase the treatment flow rate during the summer to accommodate the increased demand.

Fire Water Requirements

Pressure Zone 1 includes mixed commercial and residential connections. Zones 2-5 are residential. For residential zones, the Garberville Fire Department requires 1,500 gpm of fire flow for 2 hours, or 180,000 gallons of storage. For commercial facilities, the Fire Department requires 3,500 gpm for 3 hours, which equates to 630,000 gallons of storage for Zone 1.

Required Water Tank Storage Capacity

To determine necessary water storage capacity, the maximum day demand for all zone service connections served by a tank is added to the estimated fire flow requirement. Because the District does not anticipate an increase in population served, growth projections were excluded from tank sizing. Table 6 shows the total storage demand for the Hurlbutt, Alderpoint, and Wallan tanks, which includes MDD plus fire flow requirements.

Table 6. Tank Sizing based on Maximum Day Demand and Fire Protection Requirements

Tank	Zones Served	Maximum Day Demand (MDD) (gallons)	Fire Protection Requirement (gallons)	Combined Capacity (gallons)	3 x MDD (gallons)
Hurlbutt	1 & 2	315,518	630,000	945,518	946,554
Alderpoint	3 & 4	69,462	180,000	249,462	208,386
Wallan	5	25,605	180,000	205,605	76,815

The existing Alderpoint Tank has 200,000 gallons working storage capacity.

Water System Operations & Maintenance Practices

The District's water system operations and maintenance (O&M) practices include weekly visual inspections of tank exteriors and periodic preventative pump maintenance, backwash tank cleaning, filter media replacement at the SWTP, solar panel maintenance, and battery replacement. Instrument calibration is performed at fixed intervals. Raw and finished water turbidimeters are calibrated every 3 months; pH, temperature, and chlorine analyzers are calibrated every 6 months. Operations staff also periodically flush the pumps at the Tobin Well.

The District's maintenance decisions are heavily influenced by available finances, which determine how and when maintenance is completed. Repairs to and replacement of waterlines are generally performed in response to emergencies. Water meters are replaced when they are older and/or broken.

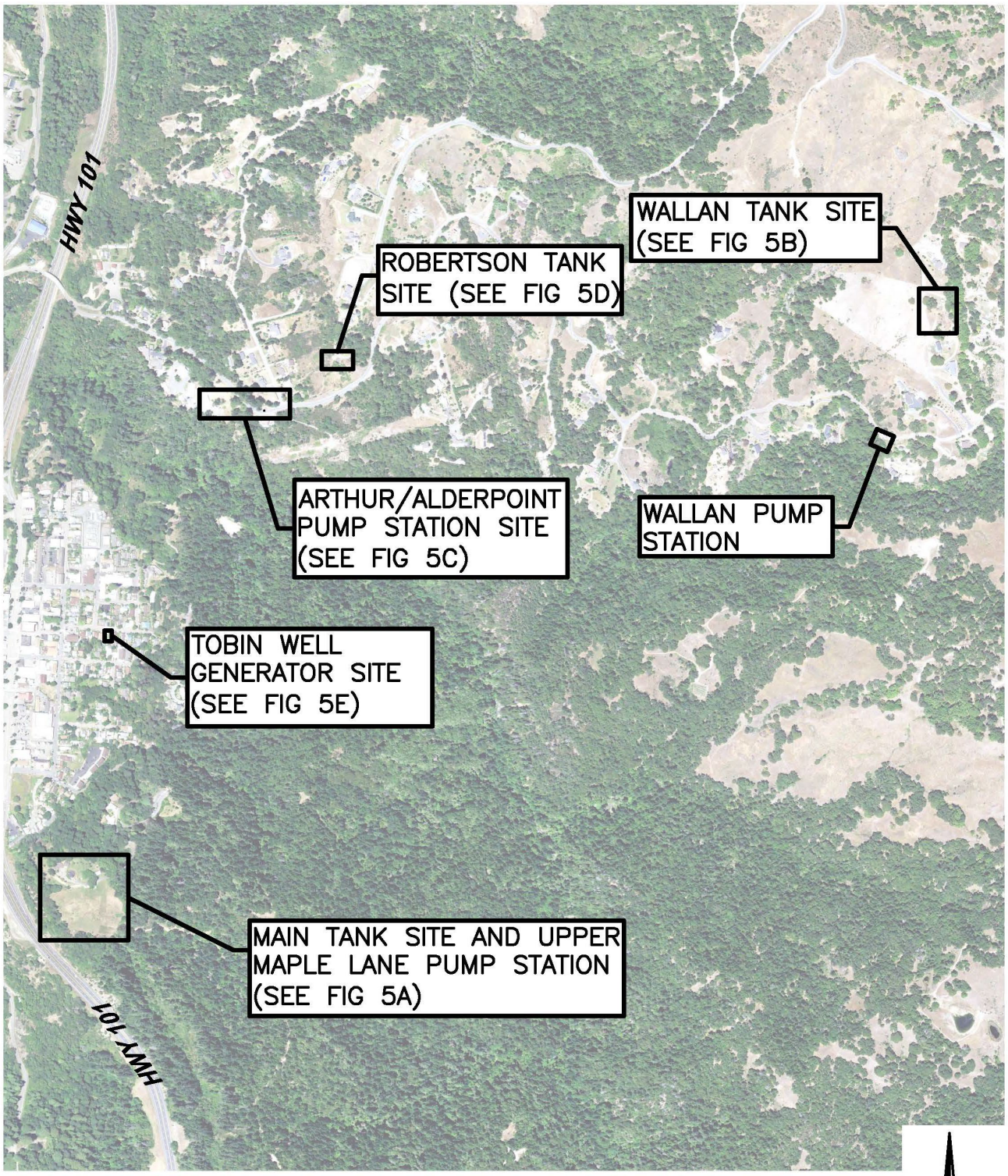
2.3 Proposed Project

Description of Proposed Construction Project

The selected construction project includes the components listed in Table 7 (SHN, 2023a). An overall map of the selected project components is provided in Figure 5. Figures 5A, 5B, 5C, 5D, and 5E show specific project components.

Table 7. Proposed Project Components

Proposed Project Component	Description
Storage: Main Tank	See Figure 5A. Replace the existing, partially underground, 180,000-gallon, concrete storage tank with new, partially underground, 550,000-gallon (approximate) pre-stressed concrete tank at new site approximately 350 feet south of the existing tank. New tank level instrumentation would be installed. The existing Hurlbutt Tank would be demolished as part of this project component. Also, the installation of the new Main Tank would require the installation of a new segment of Zone 1 water main.
Storage: Wallan Tank	See Figure 5B. Replace the existing 20,000-gallon leaking redwood water storage tank with a new, 77,000-gallon, bolted steel, water storage tank at the same site. A new pressure transducer, floats, and radio tower would be installed. The existing redwood tank would be demolished as part of this project component. Also, the installation of the new Wallan Tank would include the installation of a new segment of water main.
Storage: Robertson Tank	See Figure 5D. Existing retired 50,000-gallon concrete storage tank would be demolished along with electrical components, piping, and other appurtenances. The site would be restored to match adjacent ground surfaces. The demolition of this tank would require that a segment of the distribution main near the tank be routed around the tank to maintain service.
Pumping: Upper Maple Lane Pump Station	See Figure 5A. Replace the existing booster pump station with a new pump station at the new Main Tank site. New pumps would include variable speed drives, upgraded bladder tank(s), new electrical service, new pump control panel, and control building. The existing Upper Maple Lane Pump Station would be demolished as part of this project component. Also, the installation of the new Upper Maple Lane Pump Station would require the installation of a new segment of Zone 2 water main and a new service connection to the nearby residence.
Pumping: Alderpoint Pump Station	See Figure 5C. Replace the existing pump station with a new pump station at a lower elevation. A new building with new electrical service would house new higher capacity variable speed drive pumps, new piping, and new motor control panel. The existing Arthur Pump Station would be demolished. Installation of the new Alderpoint Pump Station would require the installation of a new segment of water main and would modify existing radio antenna and/or install an approximately 40-foot-tall unlit communications tower.
Pumping: Wallan Pump Station	Upgrade the existing pump station in the existing building. Upgrades would include new pumps, new pump control panel, and some limited new piping.
Electrical Upgrades: Standby Generators	Appropriately sized, new, permanent, diesel-powered, backup generators would be installed at the Tobin Well (Figure 5E), the Upper Maple Lane Pump Station, and the Alderpoint Pump Station. A trailer-mounted generator would be provided for the Wallan Pump Station.
Instrumentation and Controls Improvements	New instrumentation would be installed at new tanks and pump stations; programmable logic controllers (PLCs) would be replaced or reused, where possible, for system-wide monitoring and controls at the SWTP; radio telemetry would be provided to communicate tank levels to pump stations.



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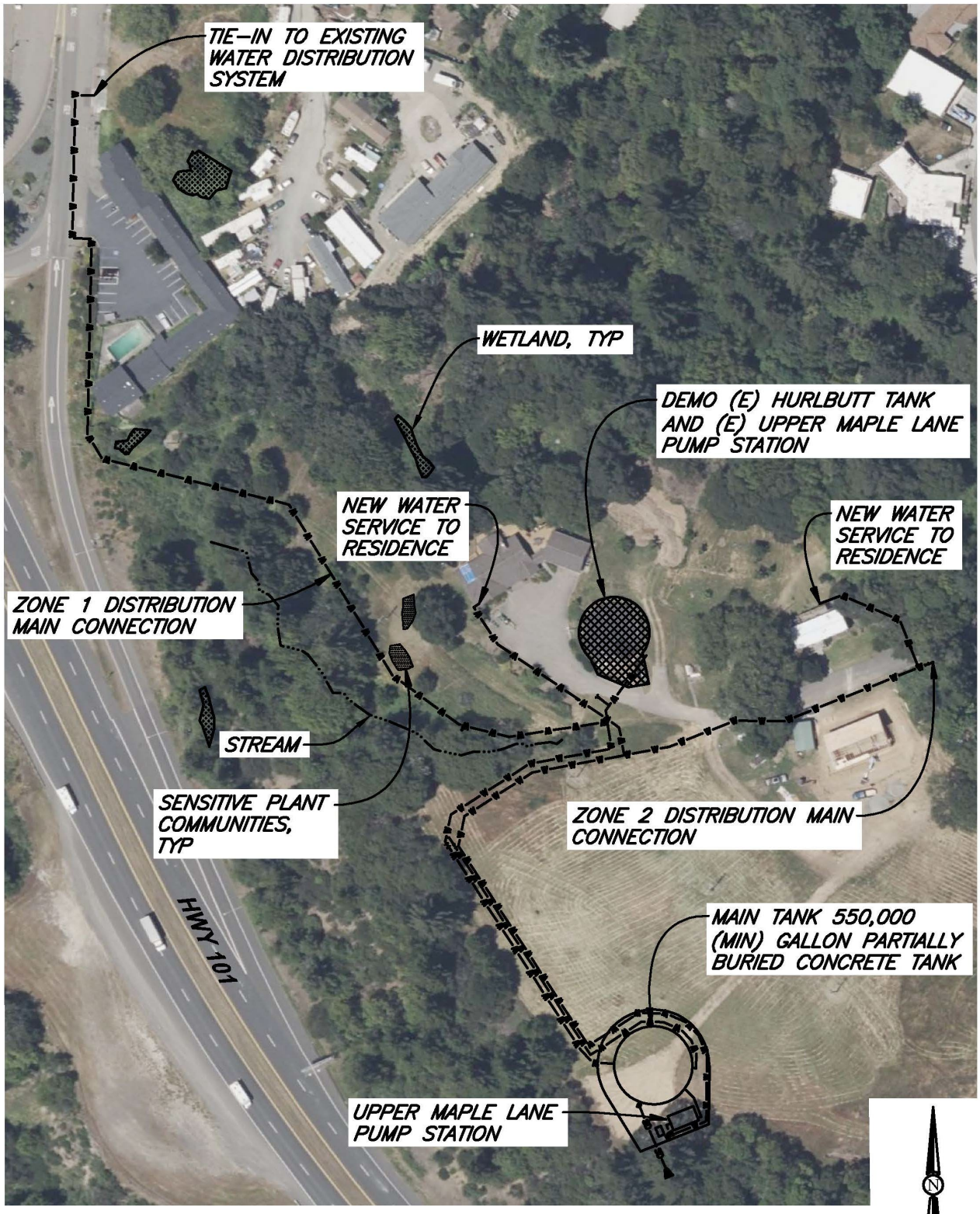
SHN	Garberville Sanitary District Garberville Water System Improvements Garberville, California	Project Overview SHN 022067
	October 2023 | 022067-PROJ-OVER-FIG	Figure 5



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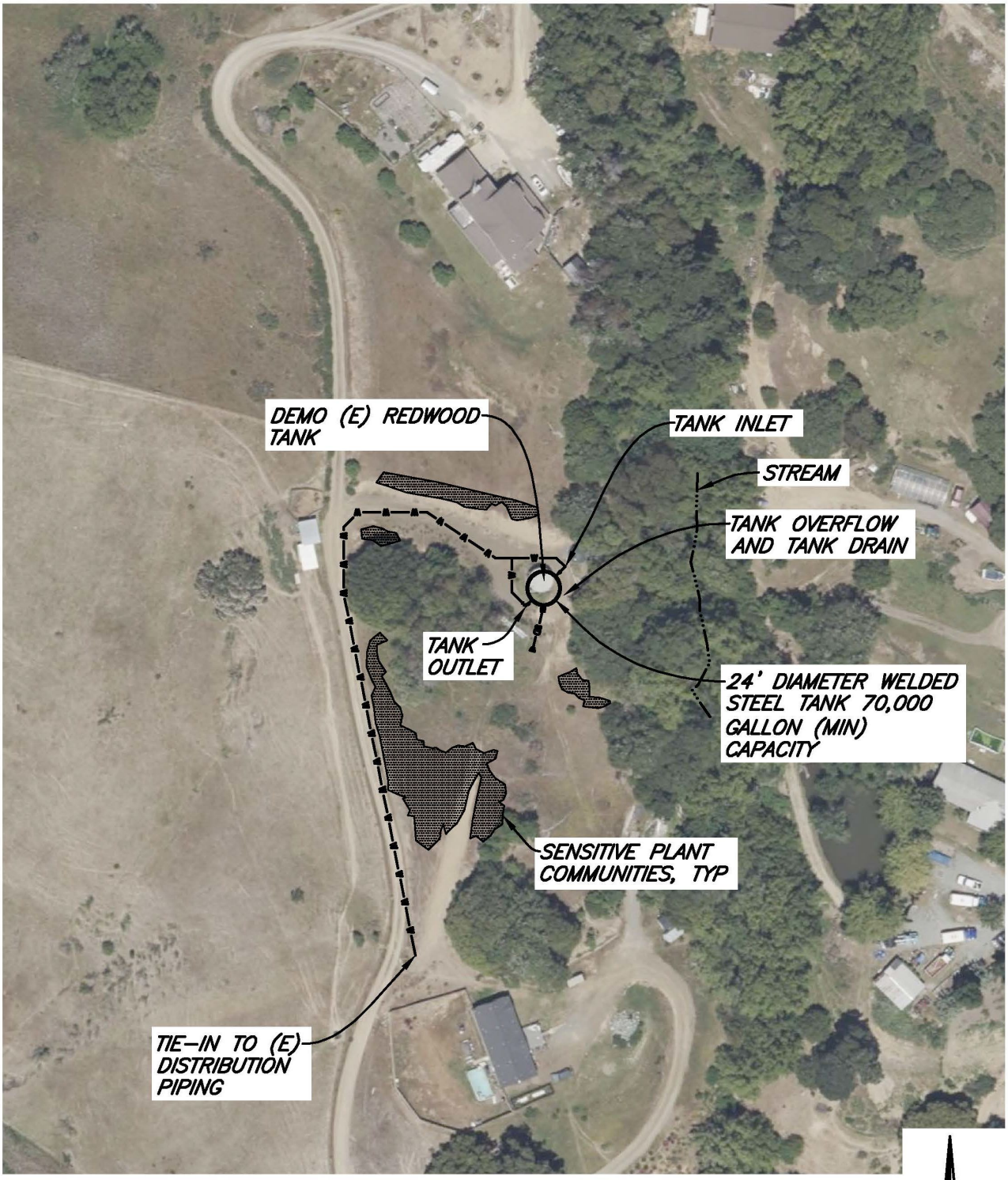
SHN	Garberville Sanitary District Garberville Water System Improvements Garberville, California	Main Tank Site & Upper Maple Lane Pump Station SHN 022067
	October 2023 | 022067-PROJ-OVER-FIG	Figure 5A



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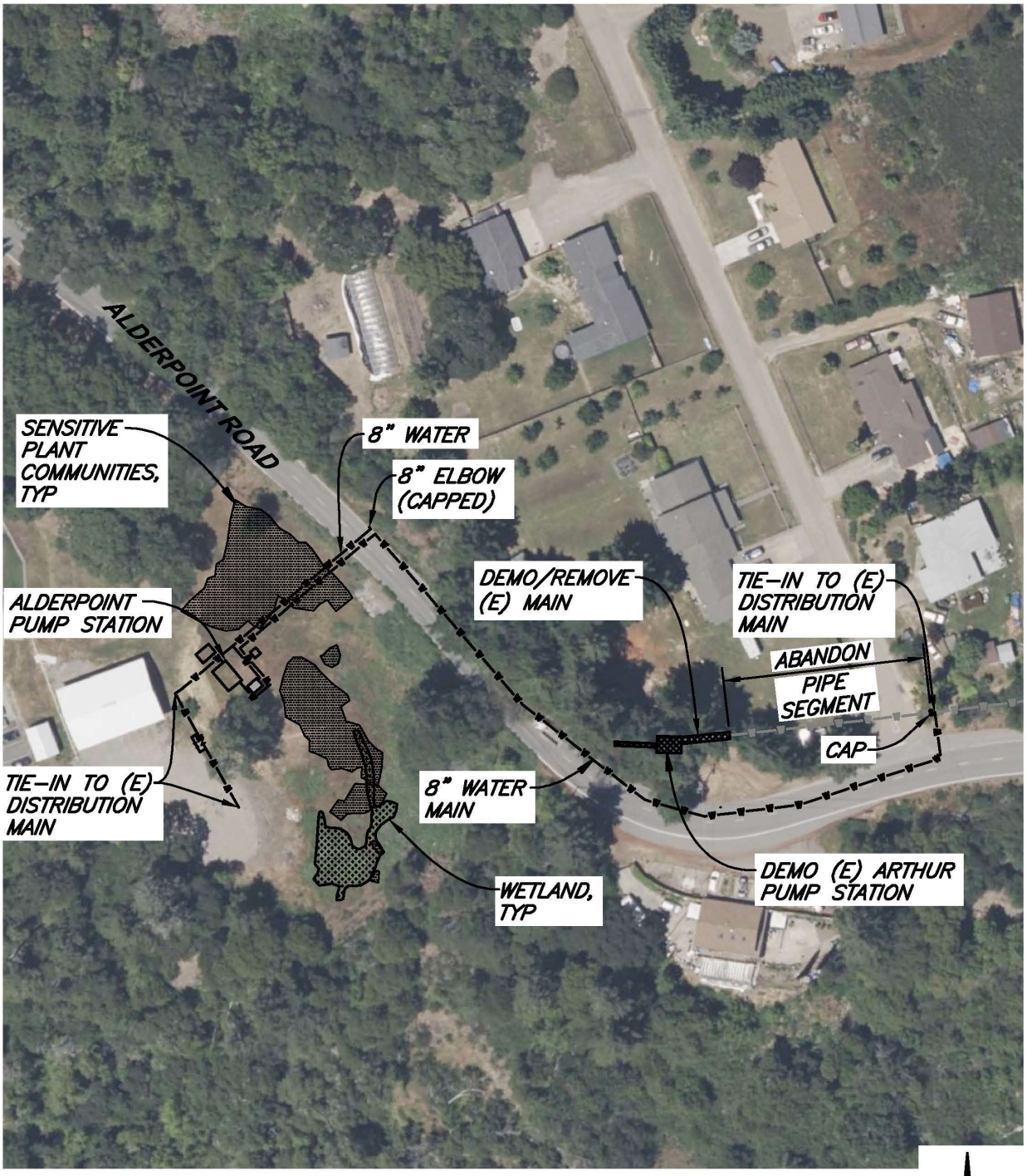
SHN	Garberville Sanitary District Garberville Water System Improvements Garberville, California	Wallan Tank Site SHN 022067	
	October 2023	022067-PROJ-OVER-FIG	Figure 5B



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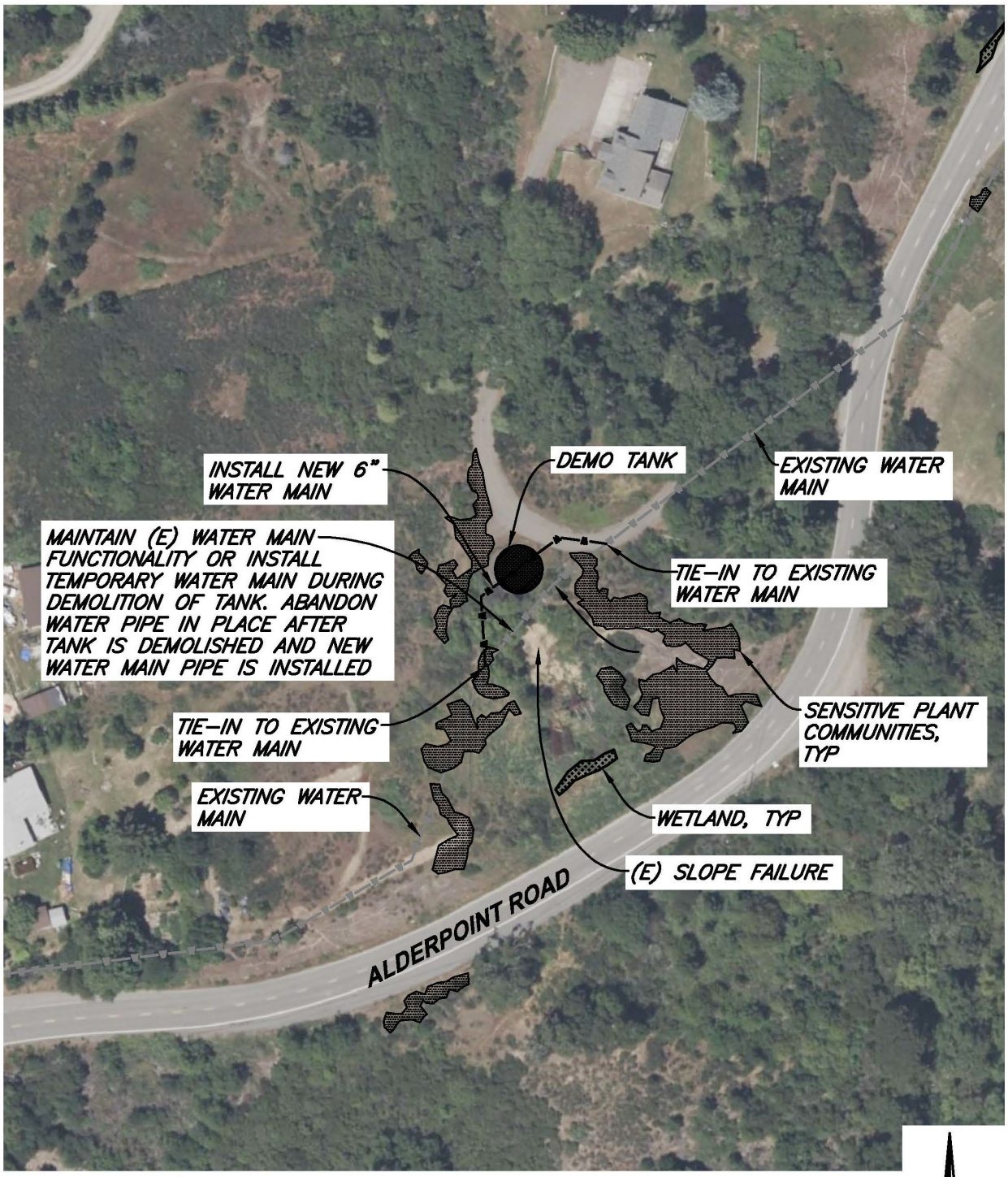
SHN	Garberville Sanitary District Garberville Water System Improvements Garberville, California	Arthur/ Alderpoint Pump Station Sites SHN 022067
October 2023	022067-PROJ-OVER-FIG	Figure 5C



SHN	Garberville Sanitary District Garberville Water System Improvements Garberville, California	Robertson Tank Site SHN 022067	
	October 2023	022067-PROJ-OVER-FIG	Figure 5D

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SHN	Garberville Sanitary District Garberville Water System Improvements Garberville, California	Tobin Well Generator Site SHN 022067
August 2023	022067-PROJ-OVER-FIG	Figure 5E

Construction Scope of Work for Selected Project

Main Tank

Scope of work at the new Main Tank site includes the following:

- Prepare site and excavate for new partially underground tank.
- Prepare foundation subgrade.
- Construct new prestressed concrete tank.
- Leak test, disinfect, and perform bacteriological testing on tank to prepare for service.
- Install yard piping, overflow, and tank appurtenances.
- Install new 12-inch piping along new access road to Hillcrest Drive, down the slope to U.S. Highway 101 off-ramp and tie to existing line at Redwood Drive.
- Install new 4" piping along new access road and tie to existing line in Hillcrest Drive.
- Backfill excavation.
- Grade site, re-seed disturbed areas, and install screening vegetation.
- Construct new tank access driveway.
- Install security fencing.
- Install level sensing and remote telemetry panel with radio antenna.

Wallan Tank

Scope of work at the new Wallan Tank site includes the following:

- Demolish existing Wallan Tank, foundation, and appurtenances.
- Prepare site for new tank.
- Excavate and construct new tank foundation.
- Construct new bolted steel tank with appurtenances, cathodic protection, and tank coating.
- Leak test, disinfect, and perform bacteriological testing on tank to prepare for service.
- Install yard piping, valves, and overflow/drain outlet.
- Install new piping along access road and tie to existing piping.
- Install security fencing.
- Install new level sensing equipment, and remote telemetry panel with radio antenna.

Upper Maple Lane Pump Station

Scope of work at the new Upper Maple Lane Pump Station at the new Main Tank site includes the following:

- Construct new pump station and controls building.
- Install new pump station and hydropneumatic tanks.
- Install yard piping and valving associated with pump station.
- Install new electrical service and utility meter, stationary standby diesel generator, and automatic transfer switch (ATS).
- Install tank and pump station instrumentation, PLC, motor control panel, building electrical, and remote telemetry panel with radio antenna to communicate with FW pumps at SWTP.

Alderpoint Pump Station

Scope of work for the new Alderpoint Pump Station, which would replace the Arthur Pump Station, at the proposed CALFIRE site includes the following:

- Install new pump station building and building foundation.
- Install new electrical service and utility meter, stationary standby diesel generator, and ATS.
- Install customized duplex pump system with controls.
- Install station piping and valves.
- Install pump station instrumentation and building electrical; modify existing remote telemetry panel; modify existing radio antenna and/or install an approximately 40-foot-tall unlit communications tower. The existing PLC control panel would be reused to control the pump station.
- Install pump station driveway.

Arthur Road Pump Station

Scope of work at the existing Arthur Road Pump Station, which would be replaced by the new Alderpoint Pump Station, includes the following:

- Demolish existing pump station mechanical and electrical equipment.
- Demolish existing building and foundation.
- Cap existing water lines.
- Restore site to match surrounding surface cover and vegetation.

Wallan Pump Station

Scope of work at the existing Wallan Pump Station building includes the following:

- Demolish existing pumps and control panel.
- Install new metal roof, replace siding with fiber cement lap siding, and repaint building exterior.
- Install new pumps.
- Replace limited piping and valves.
- Install pump station instrumentation, pump motor control panel, and building electrical; modify existing remote telemetry panel and radio antenna; reuse existing Allen-Bradley PLC.
- Provide new portable diesel generator.
- Install new manual transfer switch.

Electrical and Control System Upgrades

Generators

In order to increase the reliability of the District's water system, the following generators are proposed to be included with this project. Generators would be sized to provide backup power in the event of electric utility outages. The backup generators are only turned on 1) for emergency use during an emergency power loss, and 2) for regular weekly testing which occurs for 30 minutes/week during daylight hours.

- Alderpoint Pump Station Generator—This would be a permanent generator with a fully integrated automatic transfer switch. The outdoor generator would be provided in a sound-attenuated National Electrical Manufacturers Association (NEMA)-rated enclosure.
- Upper Maple Lane Pump Station Generator—This would be a permanent generator with a fully integrated automatic transfer switch. The outdoor generator would be provided in a sound-attenuated NEMA-rated enclosure.
- Wallan Pump Station Generator—The existing pump station would be provided with a connection for a temporary (trailer-mounted) generator, a trailer-mounted generator, and a manual transfer switch.
- Tobin Well Generator—The existing well station would be provided a permanent generator with a fully integrated automatic transfer switch. The outdoor generator would be provided in a sound-attenuated NEMA-rated enclosure.

Controls Upgrades

The new pumps and tanks would be provided with control features that would be able to be integrated into the District's overall control system. Tank levels would typically be communicated via radio telemetry to pump stations.

Distribution System Piping Replacement

New segments of distribution piping would need to be installed in order to connect the new facilities to the existing distribution system:

- Installation of a new transmission pipe to supply water to/from the distribution system and the new Main Tank. This alignment would run along the proposed access road for the new Main Tank, continuing along the western boundary of the site, descending the slope on the east side of the U.S. Highway 101 offramp, and then running along Redwood Drive to tie-in to the distribution system on the southern end of downtown. This alternative alignment is preferred over the existing transmission main alignment because the alignment of the existing transmission main runs cross country through a steep forested area on the north end of the site and passes under residential trailers in the trailer park at the bottom of the hill. The existing alignment is largely inaccessible, making it difficult to detect leaks and make repairs. Depending on the contractor bids and the timing of project funding, a

temporary alternative alignment for the transmission main may be necessary. This alternative would run along the proposed access road for the new Main Tank, cross the existing driveway, and tie-in to the existing distribution main near the existing Hurlbutt Tank, which would be demolished.

- Zone 2 main from Upper Maple Lane Booster Pump Station. Install a new section of distribution pipe between the new Upper Maple Lane Pump Station, located at the new Main Tank site, and tie into the existing Zone 2 main in Hillcrest Drive.
- Transmission main around the Robertson Tank. Prior to the demolition of the Robertson Tank, a new segment of water main would need to be installed around the north side of the tank so that water service can be maintained while the tank is being demolished. Routing the segment of water main around the north side of the tank would also set it back further from an existing slope failure on the south side of the tank, which would help to ensure the long-term reliability of the water main in this area.
- Transmission main for new Alderpoint Pump Station. A new segment of water main would be needed to connect the new Alderpoint Pump Station to the distribution system. The alignment for the new main would be routed from the proposed new pump station location at the CALFIRE facility, along Alderpoint Road, and tie-in to the existing main at the intersection of Alderpoint Road and Arthur Road. Pipe routing would be finalized during the engineering design phase.
- New transmission main to/from the Wallan Tank site. A new segment of transmission main is proposed to be installed along the alignment of the driveway that leads up to the tank to replace the 50-year-old existing tank supply pipe that has minimal to no cover.

Installation of new distribution piping shall include the following:

- Clearing and grubbing
- Trench preparation and backfill
- Pipe installation with tracer wire and warning tape
- Reconnection of impacted services and hydrants
- Addition of air release and blow off valves where appropriate
- Surface restoration

Demolition of Tank Sites

Hurlbutt Tank Site Demolition

Scope of work at the existing Hurlbutt Tank site includes:

- Demolish roofing and appurtenances
- Demolish existing Hurlbutt Tank walls to 3 feet below grade; drill holes through tank foundation to provide for drainage and backfill with drain rock to 3 feet below finish grade.
- Demolish all surrounding concrete flatwork.
- Remove a select portion of the buried yard piping.
- Remove existing Upper Maple Lane Pump Station and pump controls and panels.
- Demolish fence, shed, piping, equipment, and electrical service.
- Backfill with excavation spoils from the new Main Tank in the lower sections and topsoil for the upper 2 feet, regrade, and restore site with vegetation to match surrounding area.

Robertson Tank Site Demolition

Robertson Tank site demolition shall include the following:

- Demolish roofing and appurtenances.
- Remove tank concrete walls to 3 feet below grade; drill holes through remaining tank floor to allow for drainage.
- Dispose of tank roof, concrete (lead/asbestos testing for materials).
- Backfill with drain rock and/or spoils from construction.
- Restore site and vegetation to match surrounding area.

Construction Equipment and Access

Equipment for construction of the project would include cranes, excavators, backhoes, loaders, small skid-steer loaders, flatbed semi-trucks, dump trucks, hydraulic lifts, personnel transport vehicles, service trucks, cement trucks, compaction

equipment, and paving equipment. Construction access for the Main/Hurlbutt Tank and Upper Maple Lane Pump Station site would be from Melville Road, Hillcrest Drive, Redwood Drive, and the private driveway serving that property. Construction access for the Wallan Tank site and Wallan Pump Station site would be from Wallan Road and the private driveway serving that property. Construction access for the Arthur and Alderpoint Pump Station sites would be from Alderpoint Road and Arthur Road as well as from CALFIRE's Northern Region Garberville Station. Construction access for the Robertson Tank site would be from Alderpoint Road and the private driveway serving the tank. Construction access for delivering the backup generator at the Tobin Well site would be from Pine Lane.

Land Requirements

New or modified easements and/or property acquisition would be required at the following sites:

- New Main Tank and Upper Maple Lane Pump Station—The District currently owns the parcel where the existing Hurlbutt Tank is located, so the transfer of ownership and easements associated with replacing the Hurlbutt Tank with the new Main Tank would need to be coordinated between the District and the landowner. The parcel for the existing Hurlbutt Tank would be swapped for a similar parcel at the new Main Tank location.

- New Main Tank Distribution Main—With the installation of the transmission main alignment that encroaches into the Caltrans right of way, new easements and Caltrans approval would be required for the new distribution piping from the Main Tank and down to the shoulder of the U.S. Highway 101 offramp to tie-in to the existing distribution system. Replacement of the water main in areas where there is already existing infrastructure, such as in the downtown area, is not expected to require additional easements, just an encroachment permit from the County.

- New Alderpoint Pump Station and Distribution Main—New easements would be required for the new pump station at the CALFIRE site and an encroachment permit from the County for the new segment of distribution main along Alderpoint Road.

Timing of Construction

The District plans to construct the proposed project as soon as the applicable authorizations are approved. Construction activities are anticipated to occur over approximately 19 months in 2024 and 2025 and would occur between the hours of 8:00 a.m. and 5:00 p.m. Monday through Friday, and between the hours of 9:00 a.m. and 5:00 p.m. on Saturdays and Sundays, with no work on holidays.

Best Management Practices and Avoidance and Minimization Measures

The following construction best management practices (BMPs) and avoidance and minimization measures would 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, GSD 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 September 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 31 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 or flagging during the project construction period in a manner sufficient to avoid unintentional impacts.
- Fully implement all conditions of approval required by permit terms.

Water Efficiency

- Water Loss Reduction
    - Tank Replacement—This project would replace the existing in-ground concrete finished water storage tank (Hurlbutt/Main Tank) and the existing redwood drinking water storage tank (Wallan Tank). Both of these existing tanks are significantly leaking, which results in water losses in the distribution system and additional diversions of water from the South Fork of the Eel River. By replacing these tanks with new tanks, the water losses associated with leaking tanks would be eliminated from the system and would leave more water in the river.
    - Distribution System Upgrades—This project would replace a portion of the existing water distribution piping in the system. The existing distribution piping is nearing the end of its useful life and has experienced breaks and leaks. By replacing the aged distribution piping, water losses associated with leaks and water main breaks would be significantly reduced in areas where new distribution piping is installed and would eliminate the additional diversion of water from the river associated with these leaks.
- Reduced Demand for Raw Water— The South Fork of the Eel River contains protected salmonid species and is a wild and scenic river. By eliminating or reducing sources of water loss in the water storage tanks and distribution piping, the demand for raw water from the river would be reduced, since less water would be wasted through leaks and breaks in the system.

Energy Efficiency

- Reduced Treatment Requirements—By eliminating or reducing sources of water loss in the system, as described above, the demand on the water treatment plant would be reduced because less treated water would be wasted through leaks and breaks. This would result in reduced energy consumption associated with operating the surface water treatment plant.
- Reduced Pumping Efforts—By eliminating or reducing sources of water loss in the system, as described above, the demand on the pumping systems would be reduced because less treated water would be wasted through leaks and breaks. This would result in reduced energy consumption associated with pumping raw and treated water.
- Energy Efficient Infrastructure—The new pump stations and pump station modifications associated with this project are expected to result in less energy consumption because they would include equipment that is more energy efficient, such as modern pumps with variable frequency drives.

Adaptative Measures for Climate Change

The recommended project includes the following adaptive measures in response to climate change vulnerabilities:

- All new tanks for the project would be constructed of steel and concrete with no wood materials.
- The new Alderpoint Pump Station would be constructed of fire-resistant materials.
- As part of the construction project, as much clearing and grubbing would be completed around any new pump station structures.
- The increased storage capacity provided by the new tanks would improve firefighting capacity and also improve availability of water for the community during times of drought.
- The project would replace segments of the distribution system with new pipe that would be in better condition than the existing pipe; this would reduce the amount of water that is lost to leaks in the distribution system and generally conserve water, which is particularly important during times of drought.
- The District participates in the Enersponse demand response program.

Operations

The proposed project would alter the location of and improve GSD'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.

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 and 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 (EIR) 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

_____ Garberville Sanitary District

Printed name For

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: The project is located within the boundaries of the Garberville Sanitary District in the unincorporated community of Garberville. The project is located in several separate areas in and around the town of Garberville:

- the Main/Hurlbutt Tank and Upper Maple Lane Pump Station site (Figures 1, 2, 5, 5A),
- the Wallan Tank and Wallan Pump Station site (Figures 1, 2, 5, 5B),
- the Arthur/Alderpoint Pump Stations site and (Figures 1, 2, 5, 5C),
- the Robertson Tank site (Figures 1, 2, 5, 5D), and
- the Tobin Well site (Figures 1, 5, 5E).

The project proposes improvements to the District's community water system including replacing water tanks, replacing/upgrading booster pump stations, installing new segments of distribution piping, and replacing/upgrading backup generators, instrumentation, and controls. The project components, Assessor's parcel numbers, and parcel zoning and land use designations are shown in Table 1. Regarding operations, the proposed project would alter the location of some of GSD's water storage and conveyance infrastructure but would not change the type of ongoing operations. The total project footprint is approximately seven acres in size.

The existing visual character of the Main/Hurlbutt Tank and Upper Maple Lane Pump Station site (Figures 1, 2, 5, 5A) and its surroundings primarily include an existing 180,000-gallon below-ground concrete finished water storage tank with wooden roof that was installed in 1940, rural residential development, pasture, and forested surroundings. The site is not visible from public vantagepoints, although some of the associated water distribution main to be constructed along Redwood Drive would be visible during construction.

The existing character of the Wallan Tank site (Figures 1, 2, 5, 5B) and its surroundings primarily include an existing 20,000-gallon redwood tank that was built in 1978, a temporary polyethylene tank adjacent to the main tank, rural residential development, pastures, and a forested drainage to the east. The Wallan Tank site has little to no visibility from Wallan Road.

The existing character of the Wallan Pump Station site (Figures 1, 2, 5, 5B) and its surroundings primarily include an existing approximately 96-square-foot pump station building constructed in 1978 of concrete masonry units with wood frame construction adjacent to Wallan Road, rural residential development, pastures, and forested areas.

The existing character of the Arthur/Alderpoint Pump Stations site and (Figures 1, 2, 5, 5C) and its surroundings primarily include the existing approximately 96-square-foot Arthur Pump Station building constructed in 1978 of wood frame

construction near the corner of Arthur Road and Alderpoint Road, rural residential development, and forested areas. The site of the proposed Alderpoint Pump Station is on a parcel developed with CALFIRE's Northern Region Garberville Station and visible from Alderpoint Road.

The existing character of the Robertson Tank site (Figures 1, 2, 5, 5D) and its surroundings primarily include the existing, partially buried 50,000-gallon concrete tank with a wooden roof that was installed in 1922 and was taken out of service in February 2022 due to tank failure and slope stability issues adjacent to the tank, rural residential development, pastures, and forested areas.

The existing Tobin Well site is located in the downtown Garberville area and the surrounding parcels are developed with single-family residential uses. The Tobin Well site is currently developed District water system infrastructure including a well pump house (Figures 1, 5, 5E).

Lighting at the District's existing surface water treatment plant includes exterior building lighting at each door that is shielded to minimize light spillover onto adjacent properties and streets or upward into the night sky. The existing pump stations have interior lighting but no exterior lighting. The existing tanks have no lighting.

There are no designated scenic vistas in the project vicinity. Additionally, there are no designated state scenic highways in the project vicinity (Caltrans, 2023).

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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?* Less-Than-Significant Impact

For this analysis, a "scenic vista" is considered a viewpoint that provides expansive views of a scenic resource. The Scenic Resources section (Chapter 10.7) of the Humboldt County General Plan (Humboldt County, 2017) includes the following when discussing scenic resources: forests, open space, agricultural lands, scenic roads, rivers, and various features associated with the coastline.

There are no scenic vistas immediately surrounding the project sites; however, some of the project sites are visible from public roadways, including some of the proposed distribution water main alignment to be constructed between the Main Tank site and the downtown Garberville area, the Wallan Pump Station, some of the proposed water main alignment to be constructed by Wallan Tank, the existing Arthur Road Pump Station, the proposed Alderpoint Pump Station and associated water main, the Robertson Tank site, and the Tobin Well site (Figures 1, 2, 5, 5A-5E). In some of these sites, existing vegetation and surrounding development partially screen the project site from a person viewing it from public roadways. Existing visual barriers would not be substantially impacted by the project. The project would not have substantial impacts to forests, open space, agricultural lands, scenic roads, rivers, or coastal features.

Based on the information provided above, the proposed project would not have a substantial adverse effect on a scenic vista. Therefore, the proposed project would result a less-than-significant 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. The project site is located directly adjacent to U.S. Highway 101. U.S. Highway 101 is listed as an eligible State scenic highway but is not officially designated. The project would not affect any trees, rock outcroppings, historic buildings, or other identified scenic resources that would be visible from a scenic highway (Caltrans, 2023).

Based on the information provided above, the proposed project would 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 project is located within non-urbanized and urbanized areas. Some of the project sites are visible from public roadways, including some of the proposed distribution water main alignment to be constructed between the Main Tank site and the downtown Garberville area, the Wallan Pump Station, some of the proposed water main alignment to be constructed by Wallan Tank, the existing Arthur Road Pump Station, the proposed Alderpoint Pump Station and associated water main, the Robertson Tank site, and the Tobin Well site (Figures 1, 2, 5, 5A-5E). In some of these sites existing vegetation and surrounding development partially screen the project site from a person viewing it from public roadways.

Construction
During the construction activities for the proposed water system improvements, views of the project sites would include construction equipment, graded surfaces and stockpiles, staging areas, and truck traffic. Public views of the proposed construction sites are described above in subsection a) and are mostly from Redwood Drive, Alderpoint Road, and Wallan Road. Public views of other proposed construction sites are limited or absent.

Construction is anticipated to occur over 19 months and would be a short-term impact consistent with other construction activity in the County. Considering that the project sites are currently developed with existing District water system infrastructure and with CALFIRE's Northern Region Garberville Station, it is not anticipated that the proposed construction activity would substantially degrade the visual character or quality of public views of the site and its surroundings.

Operation
Following construction, the only changes in visual character due to the project would be from minor temporary vegetation impacts due to construction and the construction of the new water storage tanks, pump stations, and associated appurtenances, some of which would be visible from public roadways. Due to the existing visual character of the surrounding land uses, public views, and the nature of the project, the proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. The project does not conflict with applicable zoning or other regulations governing scenic quality.

Based on the information provided above, the proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings, or conflict with applicable zoning and other regulations governing scenic quality. 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 discussed in the Setting, the District's existing water tanks and pump stations have no exterior lighting.

Construction
Project construction activities would only occur during daytime hours (between 8:00 a.m. and 5:00 p.m.). As such, construction of the proposed project would not introduce any source of nighttime lighting or glare.

Operation
The proposed pump stations would have exterior security lighting. Lighting is not proposed at the proposed water tanks. 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 (be "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 residential properties and natural areas. 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/ (IDA, 2023).

With the incorporation of **Mitigation Measure AES-1**, the project would 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 on this category of environmental effect.

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 is located within the unincorporated community of Garberville. See Table 1 for zoning of the project areas, which includes Residential Suburban and Agriculture Exclusive. The Main/Hurlbutt Tank and Upper Maple Lane Pump Station site is developed with rural residential uses and existing District water system infrastructure. It is surrounded by timberlands to the east, the urbanized Garberville downtown to the north, and U.S. Highway 101 to the west and south. The Wallan Tank and Wallan Pump Station site is developed with rural residential uses and existing District water system infrastructure. It is surrounded by rural residential and agricultural uses. The Arthur/Alderpoint Pump Stations sites are developed with the existing Arthur Pump Station and a CALFIRE station respectively and are surrounded by rural residential and agricultural uses as well as forested areas. The Robertson Tank site is developed with existing District water system infrastructure and is surrounded by rural residential and agricultural uses as well as forested areas. The Tobin Well site is developed with existing District water system infrastructure and is surrounded by single-family residential development.

The Farmland Mapping and Monitoring Program (FMMP) of the California Department of Conservation (DOC) has not yet mapped farmland in Humboldt County (DOC, 2023a). However, the underlying soils in the study areas have the USDA-NRCS soil map unit designations of 311- Urban land-Garberville complex, 5 to 15% slopes; 461-Tannin-Burgsblock-Rockyglen complex, 30 to 50% slopes; the 667—Dryfield-Yorknorth-Witherell complex, 5 to 30% slopes; and the 673-Coolyork-Yorknorth Complex, 30 to 50% slopes, which are not classified as “prime farmland” (NRCS, 2023).

The site is not subject to a Williamson Act or Timberland Production contract (Humboldt County, 2023).

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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, 2023a). However, the underlying soils in the study areas have the USDA-NRCS soil map unit designations of 311- Urban land-Garberville complex, 5 to 15% slopes; 461-Tannin-Burgsblock-Rockyglen complex, 30 to 50% slopes; the 667—

Dryfield-Yorknorth-Witherell complex, 5 to 30% slopes; and the 673-Coolyork-Yorknorth Complex, 30 to 50% slopes, which are not classified as "prime farmland" (NRCS, 2023).

Based on the information provided above, the proposed project would 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

See Table 1 for zoning of the project areas, which includes Agriculture Exclusive (AE), Residential Suburban (RS), and Residential One Family (R-1). Per Humboldt County Code Section 314-58.1 (Public Uses), "Public uses as defined in this Code, shall be permitted in any zone without the necessity of first obtaining a Use Permit. However, the locations of proposed public uses shall be submitted to the Planning Commission for recommendation at least thirty (30) days prior to the acquisition of sites or rights-of-way for the public use." The project would require a general plan conformance review to ensure zoning/general plan consistency and the locations of proposed public uses would be submitted to the County as part of that process.

None of the parcels are subject to a Williamson Act contract (Humboldt County, 2023).

For the reasons explained above, the proposed project would 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 does not contain forestry or timberland resources and is not zoned for Timberland Production. The project sites are developed with rural residential uses, a CALFIRE station, and existing District water system infrastructure.

The proposed project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code (PRC) section 12220(g), timberland (as defined by PRC section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). 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

Portions of the project parcels contain forested areas, and some trees would be removed during project construction. However, the condition of the project sites and immediate surroundings (for example, agricultural and residential areas and existing District water infrastructure) 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?* Less-Than-Significant Impact

The proposed project would not produce significant growth-inducing or cumulative impacts that would 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 improvements to the District's community water system including replacing water tanks, replacing/upgrading booster pump stations, installing new segments of distribution piping, and replacing/upgrading backup generators, instrumentation, and controls. However, the project would 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 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 *Agriculture 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: Garberville is located in the North Coast Air Basin (NCAB), which extends for 250 miles from Sonoma County in the south to the Oregon border. The climate of the 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. Predominant wind direction is typically from the northwest during summer months and from the southwest during winter storm events.

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, convalescent homes, and retirement homes. The nearest known potential sensitive receptors to the project site are the residences in close proximity to the project. At the Main/Hurlbutt Tank and Upper Maple Lane Pump Station site (Figure 5A), the nearest sensitive receptor is a residence located approximately 50 feet from the existing tank. At the Wallan Tank Site (Figure 5B), the nearest sensitive receptor is a residence located approximately 60 feet from the proposed tie-in to existing distribution piping. At the Arthur/Alderpoint Pump Station site (Figure 5C), the nearest sensitive receptors are two residences located approximately 50 feet from the existing Arthur Pump Station to be demolished and the proposed Alderpoint Pump Station to be constructed. At the Robertson Tank site (Figure 5D), the nearest sensitive receptor is a residence located approximately 250 feet from the existing tank. At the Wallan Pump Station site (Figure 5), the nearest sensitive receptor is a residence located approximately 200 feet from the existing booster pump station. At the Tobin Well site (Figure 5E), the nearest sensitive receptors are the surrounding residences (directly adjacent). The nearest schools to the project are Redway Elementary School, Redway Head Start, and Little Redwoods Preschool, which are located approximately two miles northwest of the project.

Regulatory Framework: Activities affecting air quality in Humboldt County are subject to the authority of the North Coast Unified Air Quality Management District (NCUAQMD) and the California Air Resources Board (CARB). The NCUAQMD is a regional environmental regulatory agency which has jurisdiction over Humboldt, Del Norte, and Trinity counties in Northern California. The NCUAQMD is listed as "attainment" or "unclassified" for all the federal and state ambient air quality standards with the exception of the state 24-hour particulate (PM10) standard in Humboldt County only (CARB, 2018, 2019a). In 1995, the NCUAQMD prepared a Draft Particulate Matter (PM10) Attainment Plan to identify the primary sources of PM10 in the District and recommend control measures (NCUAQMD, 1995). In the Draft Plan, the largest source of particulate matter is fugitive dust emissions from vehicular traffic on unpaved roads.

Criteria Air Pollutants: Regulated air pollutants are known as criteria air pollutants. Criteria air pollutants are regulated by the NCUAQMD, CARB, and the United States Environmental Protection Agency (USEPA). Exposure to criteria air pollutants can cause myriad adverse health effects in humans. Human health effects of criteria air pollutants are summarized below in Table 8.

Table 8. Summary of Criteria Air Pollutants

Criteria Air Pollutant	Major Sources	Human Health Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust (CAPCOA, 2011, 2020a).	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death (CAPCOA, 2011, 2020a).
Nitrogen Dioxide (NO2)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel (CAPCOA, 2011, 2020a).	A respiratory irritant; aggravates lung and heart problems. A precursor to ozone. Contributes to global warming and nutrient overloading, which deteriorates water quality. Causes brown discoloration of the atmosphere (CAPCOA, 2011, 2020a).
Ozone (O3)	A colorless or bluish gas (smog) formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (NOx) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills (CAPCOA, 2011, 2020a).	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield (CAPCOA, 2011, 2020a).
Particulate Matter (PM10 and PM2.5)	Produced by power plants, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and others (CAPCOA, 2011).	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; non-fatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (CAPCOA, 2011).
Sulfur Dioxide (SO2)	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships (CAPCOA, 2011).	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron, and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain (CAPCOA, 2011).
Hydrogen Sulfide (H_2S)	A colorless gas with the odor of rotten eggs. The most common sources of H_2S emissions are oil and natural gas extraction and processing, and natural emissions from geothermal fields. It is also formed during bacterial decomposition of human and animal wastes and is present in emissions from sewage treatment facilities and landfills. Industrial sources include petrochemical plants, coke oven plants, and kraft paper mills (CARB, 2020b).	Can induce tearing of the eyes and symptoms related to overstimulation of the sense of smell, including headache, nausea, or vomiting. A few studies suggest that asthmatics may be at increased risk of exacerbation of their asthma symptoms (CARB, 2020b).
Lead	Metallic element emitted from metal refineries, smelters, battery manufacturers, iron and steel producers, use of leaded fuels by racing and aircraft industries (CARB, 2020b). Common applications also include Lead Based Paint (LBP) and Lead Containing Surface Coatings (LCSC; CARB, 2020c).	Anemia, high blood pressure, brain and kidney damage, neurological disorders, cancer, lowered IQ. Affects animals, plants, and aquatic ecosystems (CARB, 2020c).

Criteria Air Pollutant	Major Sources	Human Health Effects
Sulfate	A sub-fraction of ambient particulate matter. Emissions of sulfur-containing compounds occur primarily from the combustion of petroleum-derived fuels (for example, gasoline and diesel fuel) that contain sulfur. A small amount of sulfate is directly emitted from combustion of sulfur-containing fuels, but most ambient sulfate is formed in the atmosphere (CARB, 2020d).	Much like health effects of PM2.5, sulfate can cause reduced lung function, aggravated asthmatic symptoms, and increased risk of emergency department visits, hospitalizations, and death in people who have chronic heart or lung diseases (CARB, 2020d).
Vinyl Chloride	A colorless gas with a mild, sweet odor. Most vinyl chloride is used in the process of making polyvinyl chloride (PVC) plastic and vinyl products, thus may be emitted from industrial processes. Vinyl chloride has been detected near landfills, sewage treatment plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents (CARB, 2020e).	Short-term exposure to high levels (10 ppm or above) of vinyl chloride in air causes central nervous system effects, such as dizziness, drowsiness, and headaches. The primary non-cancer health effect of long-term exposure to vinyl chloride through inhalation or oral exposure is liver damage. Inhalation exposure to vinyl chloride has been shown to increase the risk of angiosarcoma, a rare form of liver cancer in humans (CARB, 2020e).
Visibility Reducing Particles	These particles vary greatly in shape, size, and chemical composition, and come from a variety of natural and manmade sources. Some haze-causing particles are directly emitted to the air such as windblown dust and soot. Others are formed in the air from the chemical transformation of gaseous pollutants (for example, sulfates, nitrates, and organic carbon particles) which are the major constituents of fine PM. These fine particles, caused largely by combustion of fuel, can travel hundreds of miles causing visibility impairment (CARB, 2020f).	Haze not only impacts visibility, but some haze-causing pollutants have been linked to serious health problems and environmental damage as well. Exposure to particles up to 2.5 (PM2.5) and 10 microns (PM10) in diameter in the ambient air can contribute to a broad range of adverse health effects, including premature death, hospitalizations, and emergency department visits for worsened heart and lung diseases (CARB, 2020f).

Toxic Air Contaminants: In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. According to Section 39655 of the California Health and Safety Code, a TAC is "an air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health." To date, the CARB has designated nearly 200 compounds as TACs. Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs vary, but typically include industrial processes, such as petroleum refining; commercial operations, such as gasoline stations and dry cleaners; and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects associated with TACs are quite diverse and generally are assessed locally rather than regionally.

Asbestos: Asbestos particles and fibers are naturally occurring in some rock and soil formations, but because of its strength and heat resistance, asbestos has been used in a variety of building materials. If asbestos-containing materials (ACM) are disturbed, for example during demolition of a structure, asbestos particles and fibers may be released into the air. Three of the major health effects associated with asbestos exposure are:

- Lung cancer
- Mesothelioma, a rare form of cancer that is found in the thin lining of the lung, chest and the abdomen and heart
- Asbestosis, a serious progressive, long-term, non-cancer disease of the lungs (USEPA, 2018).

The disturbance, abatement, and demolition of the structures containing ACM would require compliance with USEPA Asbestos Hazard Emergency Response Act (AHERA), USEPA National Emission Standards for Hazardous Air Pollutants (NESHAP), and California Division of Occupational Safety and Health (Cal/OSHA) regulations regarding asbestos in construction.

Lead: As described in Table 8, exposure to lead can lead to harmful health effects in humans. If LBP and LCSC are chipped or deteriorating, lead particles may become airborne as dust, chips, and suspended particles. The disturbance of any materials containing any amount of lead would require compliance with Cal/OSHA Lead Construction Standards (Title 8 CCR 1532.1) for worker protection, and compliance with the California Code of Regulations Title 17, CCR 35000-36100.

Diesel Particulate Matter: CARB has identified diesel particulate matter (DPM) as a toxic air contaminant. Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is known as DPM. More than 90% of DPM is less than 1 micrometer in diameter, and thus is a subset of particulate matter less than 2.5 microns in diameter (PM2.5). DPM is typically composed of carbon particles and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. Diesel exhaust also contains gaseous pollutants, including volatile organic compounds (VOCs) and oxides of nitrogen (NOx). The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation. Diesel exhaust can also cause coughing, headaches, light-headedness, and nausea. Due to their extremely small size, these particles can be inhaled and eventually become trapped in the lungs' bronchial and alveolar regions. Because it is part of PM2.5, DPM also contributes to the same non-cancer health effects as PM2.5 exposure (CARB, 2020a).

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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 is listed as "attainment" or "unclassified" for all the federal and state ambient air quality standards with the exception of the state 24-hour particulate (PM10) standard in Humboldt County only (CARB, 2018, 2019a). Construction of the proposed project would include demolition, site preparation, grading, water tank and building construction, trenching, paving, architectural coating, and revegetation. These include activities and equipment which may result in the emission of PM10, for which Humboldt County is non-attainment under state ambient air quality standards. As stated previously, the NCUAQMD prepared a Draft Particulate Matter (PM10) Attainment Plan in May 1995. The Draft Plan includes a description of the planning area, an emissions inventory, general attainment goals, and a listing of cost-effective control strategies. The NCUAQMD's Attainment Plan established goals to reduce PM10 emissions and eliminate the number of days in which State standards are exceeded.

Construction

Construction of the proposed project has the potential to temporarily contribute to PM10 concentrations from dust generation. NCUAQMD's Regulation 1 prohibits nuisance dust generation, such as that generated by construction activity (NCUAQMD, 2015). The following standard conditions for controlling dust emissions during construction will be required as **Mitigation Measure AQ-1** in order to provide consistency with the Draft Particulate Matter (PM10) Attainment Plan.

- All active construction areas (for example, parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered a minimum of two times per day during the dry season;
- Hydroseed or apply non-toxic soil stabilizers to inactive construction areas;
- Dust-generating activities shall be limited during periods of high winds (over 15 mph);
- Suspend excavation and grading activity when winds exceed 25 mph;

- All haul trucks transporting soil, sand, or other loose material, likely to give rise to airborne dust, shall be covered;

- All vehicle speeds shall be limited to 15 miles per hour within the construction area;

- Promptly remove earth or other tracked out material from paved streets onto which earth, or other material has been transported by trucking or earth-moving equipment; and

- Conduct digging, backfilling, and paving of utility trenches in such a manner as to minimize the creation of airborne dust.

With the implementation of **Mitigation Measure AQ-1**, the proposed project's construction activity would not conflict with or obstruct implementation of the Draft Plan.

Operation

The Draft Particulate Matter (PM10) 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 PM10 Attainment Plan appropriate to this type of project, such as stop-and-go traffic, which accounts for a large portion of vehicular related PM10 emissions. This is especially true with heavy duty diesel-fueled vehicles (NCUAQMD, 1995). The project site is located nearby to highway access and the existing GSD water system infrastructure. The close proximity to the highway and existing GSD water system infrastructure minimizes stop-and-go traffic for haul trucks and reduces potential vehicular PM10 emissions. Therefore, the proposed project would not conflict with the PM10 Attainment Plan.

Land Use. The project is located in the unincorporated community of Garberville in close proximity to the town center, highway access, and the existing GSD water system infrastructure. Therefore, the project would not increase vehicle miles traveled or associated vehicular emissions for GSD's drinking water system operators.

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 would minimize associated PM10 emissions generated during long-term operation of the project.

With the implementation of **Mitigation Measure AQ-1** and based on the information provided above, the proposed project would 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 (PM10) standard (NCUAQMD, 2023).

The proposed project has the potential to generate PM10 emissions during both construction and operation. During construction activities, PM10 emissions would primarily be generated from fugitive dust from ground-disturbing activities and vehicle/equipment exhaust. During operation of the proposed project, minimal PM10 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, 2022), 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, 2023a), 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 would be used for construction, number of days for each construction activity, the quantity of materials that would 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 PM10 attainment status for Humboldt County, PM10 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 PM2.5.

Tables 9 and 10 below provide the maximum daily construction and operations emissions estimates (unmitigated) from CalEEMod as compared to the significance threshold for PM10 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, PM10 emissions from construction and operation of the proposed project would be cumulatively considerable if they exceed the Rule 110 significance threshold (NCUAQMD, 2015).

Table 9. Maximum Daily Construction Emissions (Unmitigated)

Criteria Pollutants	Emissions (pounds per day)					
	ROG	NOx	CO	SOx	PM10	PM2.5
Maximum Daily Emissions[a]	0.59	5.09	5.33	0.01	0.29	0.22
Significance Threshold[b]	50	50	500	80	80	50
Exceeds Significance Threshold?	No	No	No	No	No	No

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

Table 10. Maximum Daily Operational Emissions (Unmitigated)

Criteria Pollutants	Emissions (pounds per day)					
	ROG	NOx	CO	SOx	PM10	PM2.5
Maximum Daily Emissions[a]	0.42	0.69	1.46	<0.1	0.17	<0.1
Significance Threshold[b]	50	50	500	80	80	50
Exceeds Significance Threshold?	No	No	No	No	No	No

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

As indicated in Tables 9 and 10, the maximum daily construction and operational emissions from the proposed project would be below the NCUAQMD Rule 110 significance threshold for PM10. Additionally, the construction and operation of the proposed project would not exceed the significance thresholds for ROG, CO, NOx, SOx, and PM2.5. As such, the proposed project is not anticipated to result in a cumulatively considerable net increase of PM10.

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 the proposed project would expose sensitive receptors to substantial concentrations of criteria air pollutants or toxic air contaminants during construction activity including naturally-occurring asbestos, lead- and asbestos-containing materials, fugitive dust (PM2.5 and PM10), and DPM.

As noted in the Air Quality Setting, high concentrations of criteria air pollutants and toxic air contaminants 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 or chronically ill persons, especially those with cardio-respiratory diseases such as asthma and bronchitis. Land uses that generally house more sensitive people include residences, schools, parks, childcare centers, hospitals, convalescent homes, and retirement homes. The nearest known potential sensitive receptors to the project site are the residences in close proximity to the project. At the Main/Hurlbutt Tank and Upper Maple Lane Pump Station site (Figure 5A), the nearest sensitive receptor is a residence located approximately 50 feet from the existing tank. At the Wallan Tank Site (Figure 5B), the nearest sensitive receptor is a residence located approximately 60 feet from the proposed tie-in to existing distribution piping. At the Arthur/Alderpoint Pump Station site (Figure 5C), the nearest sensitive receptors are two residences located approximately 50 feet from the existing Arthur Pump Station to be demolished and the proposed Alderpoint Pump Station to be constructed. At the Robertson Tank site (Figure 5D), the nearest sensitive receptor is a residence located approximately 250 feet from the existing tank. At the Wallan Pump Station site (Figure 5), the nearest sensitive receptor is a residence located approximately 200 feet from the existing booster pump station. At the Tobin Well site (Figure 5E), the nearest sensitive receptors are the surrounding residences (directly adjacent).

The NCUAQMD has not adopted guidance for health risk assessments or health risk significance thresholds. However, the NCUAQMD recommends on their website 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 (NCUAQMD, 2015). 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 (CAPCOA, 2009, Pg. 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 would 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 9, 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 USEPA, 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 Air Quality Setting, the USEPA has concluded that the current National Ambient Air Quality Standards (NAAQS) protect the public health, including the at-risk populations, with an adequate margin of safety. Because 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 U.S. Geological Survey (USGS, 2011) has published mapping identifying areas that are known to contain naturally occurring asbestos (NOA). The California Department of Conservation (DOC, 2000) has also published mapping of area more likely to contain naturally-occurring asbestos. These mapping sources indicate

that there are several locations within Humboldt County that are known to contain NOA. The project site is located in Garberville and is not identified as an area that is known to contain or likely to contain NOA. The closest areas containing NOA are located approximately 9 miles northwest of the project (USGS, 2011; DOC, 2000). As such, the project site does not contain NOA that could be released during construction activities such as site preparation, grading, and trenching.

Asbestos Containing Materials (ACM): The project proposes the demolition of the existing Hurlbutt, Wallan, and Robertson Tanks, and the Upper Maple Lane, Wallan, and Arthur Pump Stations. Asbestos-containing materials may be present within these existing structures. Therefore, the disturbance, abatement, and demolition of the materials containing asbestos would require compliance with USEPA AHERA, USEPA NESHAP, and Cal/OSHA regulations regarding asbestos in construction. In summary, these regulations require the following procedures:

- *Survey by a California State Certified Asbestos Consultant (CAC) of the areas proposed for disturbance for asbestos-containing material.*
- *Documentation of the asbestos survey results in a signed report from the CAC.*
- *Notification to the NCUAQMD at least 10 working days prior to any demolition.*
- *Employing the use of proper work practices outlined in the NESHAP asbestos regulations.*
- *Complying with Cal/OSHA worker safety requirements.*

All asbestos-containing materials to be removed by demolition activities must be done by a registered asbestos abatement contractor, as an asbestos abatement project. The construction contractor must maintain all records of compliance with the NESHAP asbestos regulations and NCUAQMD rules including, but not limited to, the following: 1) evidence of notification to the NCUAQMD; 2) contact information for the asbestos abatement contractor and asbestos consultant; and 3) receipts (or other evidence) of offsite disposal of all asbestos-containing materials. These records shall be made available to the District and NCUAQMD upon request.

The implementation of existing regulatory requirements for the removal and disposal of ACM would reduce potential impacts to a less-than-significant level.

Lead: As described above, the project proposes the demolition of the existing Hurlbutt, Wallan, and Robertson Tanks, and the Upper Maple Lane, Wallan, and Arthur Pump Stations. The demolition of the existing structures has the potential to expose people to LBP and LCSC. Therefore, in compliance with existing law, all project renovation or demolition work that disturbs building components containing any amount of lead is to be conducted as lead-related construction work. Demolition activities associated with the proposed project must comply with Title 17, California Code of Regulations Division 1, Chapter 8 (Lead-Based Paint Regulations), which addresses requirements for the removal of components painted with lead-based paint during site clearing and demolition of existing structures. The construction contractor shall be required to comply with these provisions. The removal of all lead-based paint materials shall be conducted by a certified lead supervisor or certified lead worker, as defined by §35008 and §35009 of the Lead Based Paint Regulations.

The implementation of existing regulatory requirements for the removal and disposal and LBP and LCSC would reduce potential impacts to a less-than-significant level.

Diesel PM: The use of diesel-powered equipment during construction activity would generate DPM, which is a known carcinogen. The majority of heavy diesel equipment used during construction activity would occur during grading of the project site. However, construction activities would be transitory, occurring intermittently over the entire construction site and over a short timeframe of approximately 19 months. Residents and other sensitive receptors 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 would substantially limit exposure to hazardous emissions.

In addition, any relevant vehicle or equipment use associated with construction of the project would 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 (such as, exhaust retrofits). The requirements and compliance dates of the Off-Road regulation vary by fleet size, as defined by the regulation.

Due to the short duration of construction activity requiring heavy diesel equipment, and in compliance with CARB regulations, construction of the proposed project would not expose sensitive receptors to substantial concentrations of diesel PM.

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 would 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 would not expose sensitive receptors to substantial concentrations of fugitive dust.

Operation

The project proposes improvement of the District'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. Because 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 10, 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 USEPA, 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 Air Quality Setting, the USEPA has concluded that the current NAAQS protect the public health, including the at-risk populations, with an adequate margin of safety. Because 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

Construction

The construction phase of the proposed project would include the repaving of areas along Redwood Drive and Alderpoint Road disturbed by installation of new water main, which would include the application of hot asphalt. Project construction would 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 sites are primarily rural residential, agricultural, and forested areas, 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 would be temporary and subside once project construction is concluded.

Operation

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.

Based on the information provided above, the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Therefore, the proposed project would result in a less-than-significant impact.

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. <u>Fugitive Dust Control Measures</u>: Compliance with these requirements shall be required to minimize dust generation during construction activity.

- All active construction areas (for example, parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered a minimum of two times per day during the dry season;
- Hydroseed or apply non-toxic soil stabilizers to inactive construction areas;
- Dust-generating activities shall be limited during periods of high winds (over 15 mph);
- Suspend excavation and grading activity when winds exceed 25 mph;
- All haul trucks transporting soil, sand, or other loose material, likely to give rise to airborne dust, shall be covered;
- All vehicle speeds shall be limited to 15 miles per hour within the construction area;
- Promptly remove earth or other tracked out material from paved streets onto which earth, or other material has been transported by trucking or earth-moving equipment; and
- Conduct digging, backfilling, and paving of utility trenches in such a manner as to minimize the creation of airborne dust.

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: The setting and analysis in this section is based on the Biological and Wetland Assessment (SHN, 2023b) that was prepared for this project.

SHN biologists conducted biological and botanical surveys for special-status species within the project's area of potential effects in several locations around Garberville (Figure 6) on April 12, 15, 27, and July 1, 2022, and May 9, 10, and July 5 and 6, 2023. The term "Special-status Species" is used collectively to refer to species that are State or federally listed, species that are State or federal candidates for listing, and all species listed by the California Natural Diversity Database. This term is consistent with the biological resources that need to be assessed pursuant to CEQA. A wetland delineation was conducted in conjunction with the biological and botanical surveys by SHN's wetland ecologist and soil scientist, which documents potential wetland conditions within the project areas on April 12, 15, and 27, 2022 and February 17, May 9, and May 10, 2023. The study area covered the same locations as the biological and botanical surveys (Figure 6). Section 1 covers the Wallan Tank and Pump Station off Wallan Road; Section 2 is located along Alderpoint Road near the existing Robertson Tank and Arthur Pump Station and includes portions of the CALFIRE Station; and Section 3 covers the Tobin Well site, Hurlbutt Tank site with pressure tank and pump system, and the proposed Main Tank site (Figures 7 through 9).

Section 1 of the study area (Figure 7) includes the Wallan Tank site and Wallan Pump Station. The Wallan Tank site and corresponding Pump Station are characterized by sparsely forested slopes in an area of rural development northeast of the town of Garberville. The Wallan Tank is positioned upslope of Wallan Road and just west of a narrow strip of mixed hardwood and conifer woodland along the steep slopes of a ravine. Historically disturbed areas within the Wallan Tank site are dominated by nonnative annual grasses and forbs, such as large quaking grass (*Briza maxima*), soft chess (*Bromus hordeaceus*), silver hairgrass (*Aira caryophyllea*), and yellow star thistle (*Centaurea solstitialis*).

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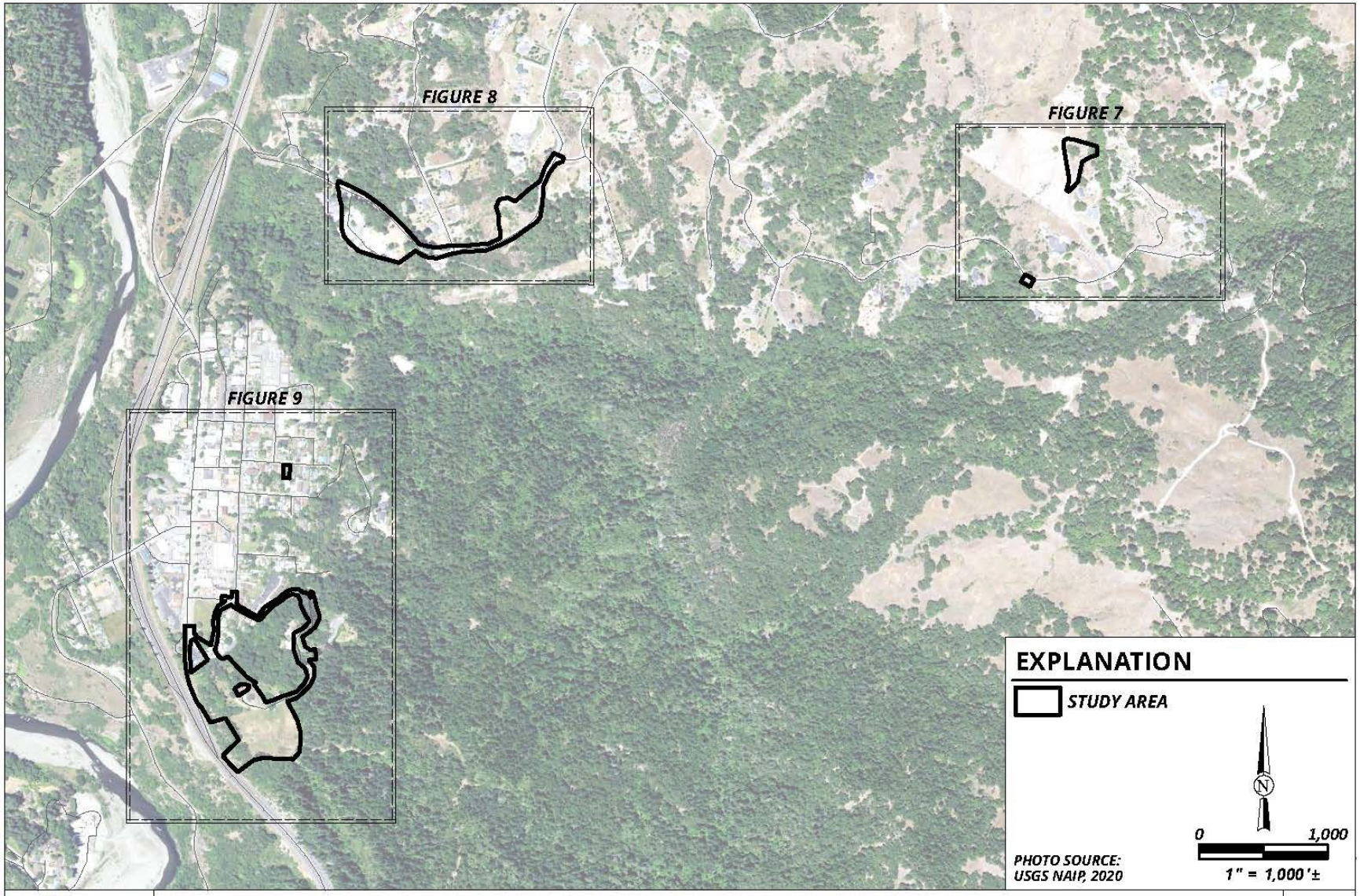

Garberville Sanitary District
Preliminary Wetland & Biological Study
Garberville, California

Biological Study Area Vicinity Map

October 2023 - 022067.220

Figure 6

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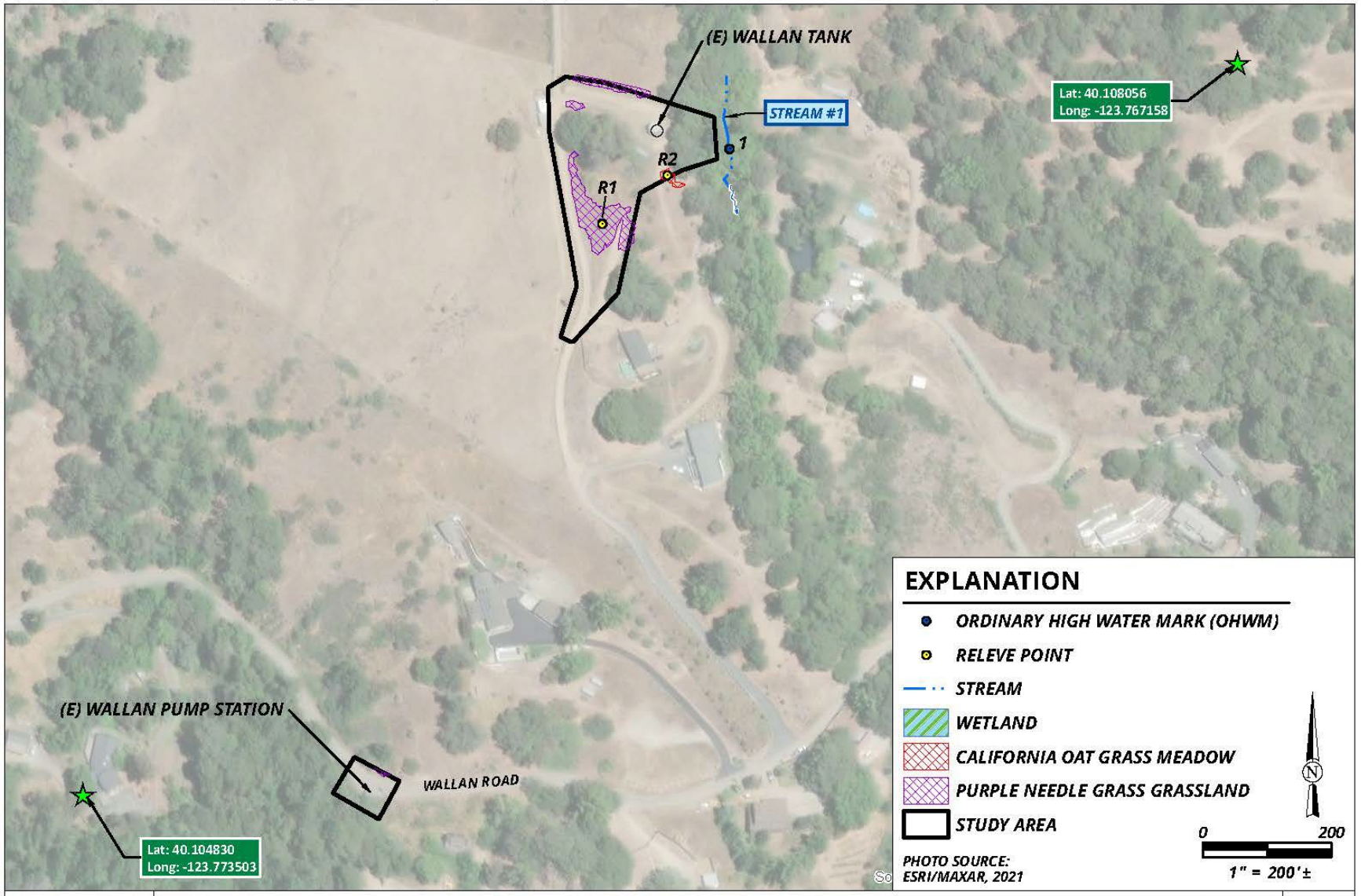

Garberville Sanitary District
Preliminary Wetland & Biological Study
Garberville, California

Biological Study Area
Section 1 - Wallan
October 2023 - 022067.220

Figure 7

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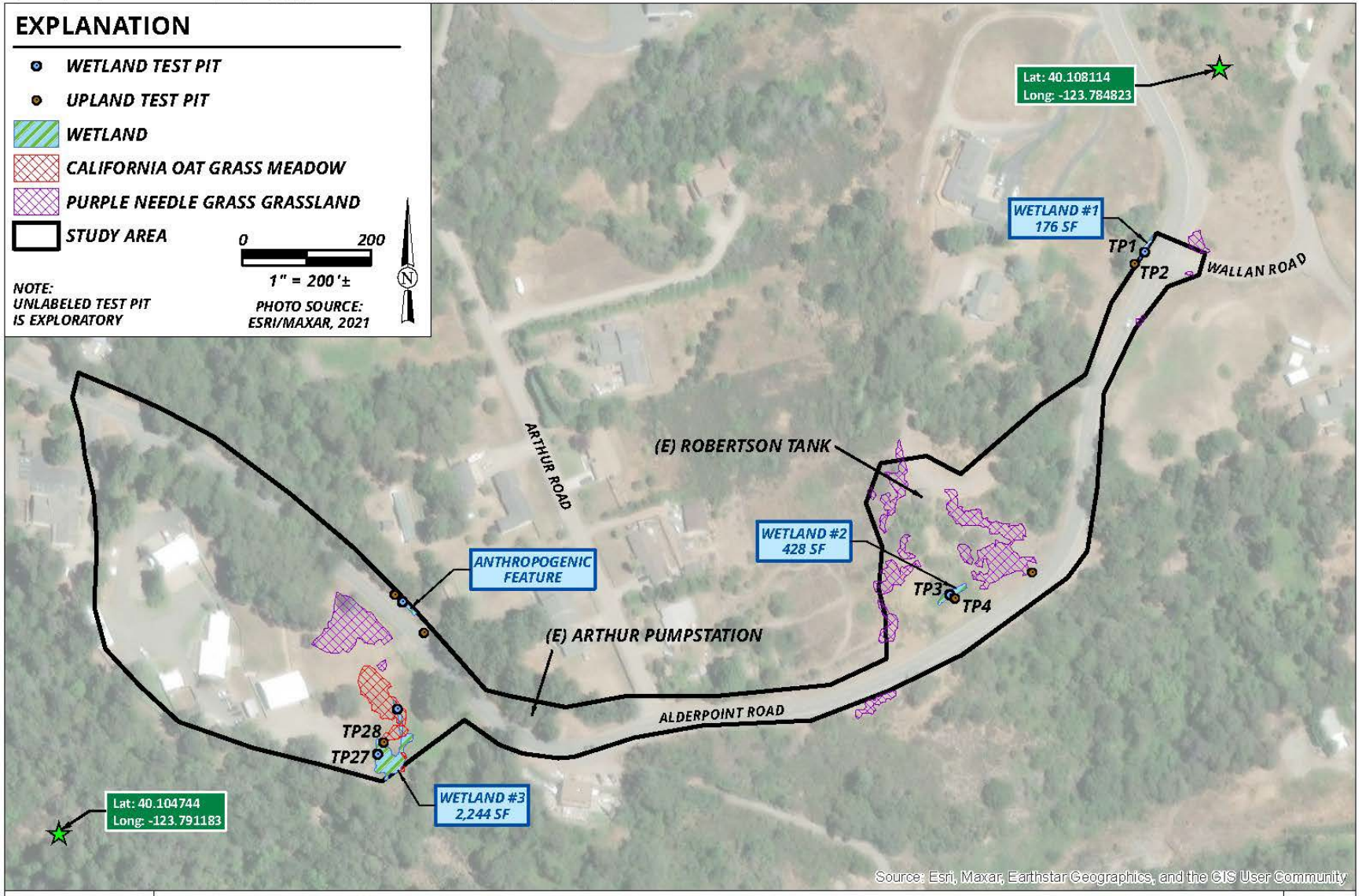
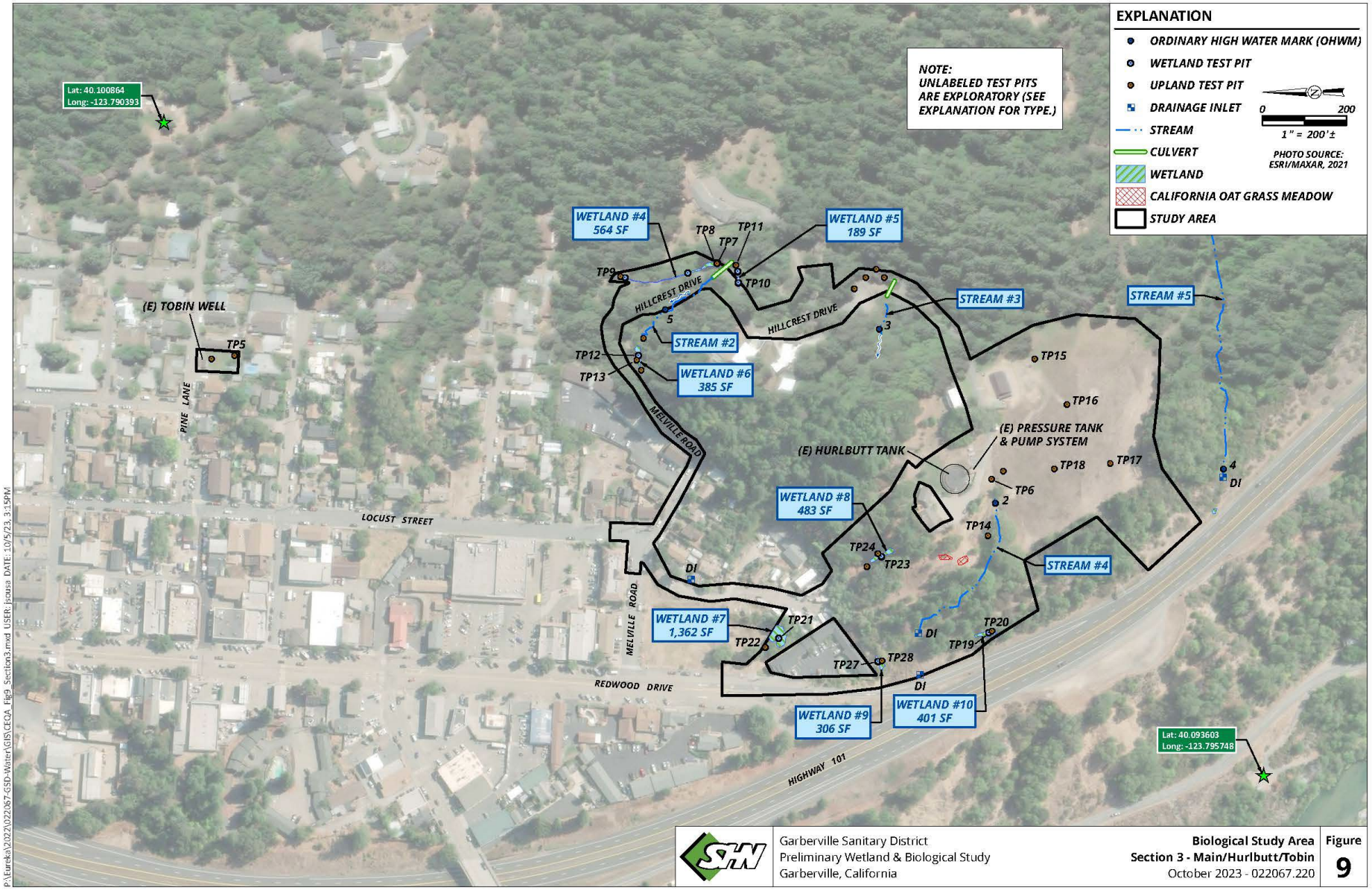


Garberville Sanitary District
Preliminary Wetland & Biological Study
Garberville, California

Biological Study Area
Section 2 - Alderpoint/Robertson
October 2023 - 022067.220

Figure 8


EXPLANATION
ORDINARY HIGH WATER MARK (OHWM)
WETLAND TEST PIT
UPLAND TEST PIT
DRAINAGE INLET
STREAM
CULVERT
WETLAND
CALIFORNIA OAT GRASS MEADOW
STUDY AREA
0
200
1" = 200'±
PHOTO SOURCE: ESRI/MAXAR, 2021
NOTE: UNLABELED TEST PITS ARE EXPLORATORY (SEE EXPLANATION FOR TYPE.)
Lat: 40.100864
Long: -123.790393
Lat: 40.093603
Long: -123.795748
WETLAND #4 564 SF
WETLAND #5 189 SF
WETLAND #6 385 SF
WETLAND #7 1,362 SF
WETLAND #8 483 SF
WETLAND #9 306 SF
WETLAND #10 401 SF
STREAM #2
STREAM #3
STREAM #4
STREAM #5
(E) TOBIN WELL
(E) HURLBUTT TANK
(E) PRESSURE TANK & PUMP SYSTEM
TP5
TP6
TP7
TP8
TP9
TP10
TP11
TP12
TP13
TP14
TP15
TP16
TP17
TP18
TP19
TP20
TP21
TP22
TP23
TP24
TP27
TP28
DI
HILLCREST DRIVE
MELVILLE ROAD
PINE LANE
LOCUST STREET
REDWOOD DRIVE
HIGHWAY 101
Garberville Sanitary District
Preliminary Wetland & Biological Study
Garberville, California
Biological Study Area
Section 3 - Main/Hurlbutt/Tobin
October 2023 - 022067.220
Figure
9
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The Wallan Pump Station is located south of Wallan Road at the edge of a mixed hardwood and conifer forest, which extends along the south of Wallan Road.

Section 2 of the study area (Figure 8) includes the Robertson Tank site, the Arthur Pump Station, Alderpoint Road, and the CALFIRE Station. The Robertson Tank is located atop a steep south-southwest-facing slope north of Alderpoint Road in an area of rural development northeast of Garberville. The tank is partially below ground within a grassland adjacent to a mixed hardwood and conifer woodland that extends down the slope.

The Arthur Pump Station is located just north of Alderpoint Road within a stand of Douglas fir (*Pseudotsuga menziesii*) between Alderpoint Road and residential development. Across Alderpoint Road, mixed hardwood/Douglas fir forest extends south of the Arthur Pump Station toward the town of Garberville.

The CALFIRE Station is located immediately south and downslope from Alderpoint Road on a large hillside bench that ranges from moderately steep to mostly flat. Flat portions of the area are developed with the CALFIRE Station infrastructure and this area is dominated by non-native species including landscaping and other cultivated plants. Undeveloped portions of the area are dominated by mixed conifer and hardwood forest specifically on the perimeter of the station area and in the northern portion of the area along Alderpoint Road. The undeveloped southeastern portion of the CALFIRE Station area is dominated by native and non-native grassland.

Section 3 of the study area (Figure 9) includes the existing Tobin Well site, the existing Hurlbutt Tank site, and proposed Main Tank site. Vegetation at the Tobin Well site consists of nonnative grasses and herbs, as well as ornamental trees and shrubs. The Hurlbutt/Main Tanks site is accessed from the southeastern end of downtown Garberville via Melville Road and Hillcrest Drive. The access roads pass through mixed hardwood/conifer woodlands, connecting to a large, expansive forested area dominated by mature Douglas fir to the south and east of Garberville. The study area encompasses the existing Hurlbutt Tank, a residence, and several other associated structures accessed from a paved driveway northwest of a large gently sloping, mowed, non-native grassland. The proposed location of the new Hurlbutt Tank is on the southwestern edge of the sloping mowed pasture. The residence, existing Hurlbutt Tank, proposed Main Tank, and the mowed pasture are surrounded by mixed hardwood-conifer forests. The southwestern edge of the study area includes a steep cut slope dominated by young forest and shrubland between the mowed pasture and U.S. Highway 101. Dominant species within the forested area include Oregon white oak (*Quercus garryana*), California bay laurel (*Umbellularia californica*), madrone (*Arbutus menziesii*), and Douglas fir, which have a well-developed understory with native herbaceous and woody species dominant. Within the mowed pasture dominant species were non-native species common within managed pasture and grassland, including subterranean clover (*Trifolium subterraneum*), sweet vernal grass (*Anthoxanthum odoratum*), hairy oatgrass (*Rhytidosperma penicillatum*, California blackberry (*Rubus ursinus*), velvet grass (*Holcus lanatus*), and creeping bentgrass (*Agrostis stolonifera*).

Special-Status Plant Species

Based on a review for special-status plant species, 46 special-status plant species were identified as occurring within the Garberville and surrounding USGS quadrangles. A total of 11 special-status plant species were determined to have a moderate or high potential of occurring within the study area. Species with a moderate or high potential for occurrence within the study area are discussed below under subsection a). Seasonally appropriate surveys of the study area did not locate any special-status plant species.

Special-Status Animal Species

Based on a review for special-status animal species, 37 special-status animal species have been reported from the region consisting of the Garberville quadrangle and surrounding quadrangles. Of the 37 special-status animal species reported from the region consisting of the Garberville quadrangle and surrounding quadrangles, 27 animal species are considered to have no or low potential to occur at the project site and 10 species have a moderate to high potential to occur at the project site. Species with a moderate or high potential for occurrence within the study area are discussed below under subsection a).

Sensitive Natural Communities

Two sensitive vegetation communities as defined by the Manual of California Vegetation or California Department of Fish and Wildlife (CDFW) Natural Communities list occur within the study area (Figures 7, 8, and 9). These include purple needlegrass grassland (*Stipa* spp. Herbaceous Alliance) and California oatgrass grassland (*Danthonia californica* Herbaceous Alliance) and appropriate species associations. These sensitive natural communities are discussed below under subsection b).

Wetlands and Jurisdictional Drainages
Wetland field investigations were conducted on April 12, 15, and 27, 2022, and February 17, May 9 and 10, 2023. Ten wetland features and five streams (as delineated by ordinary high-water mark [OHWM]) were mapped within or near the study area (see Figures 7 through 9). A small anthropogenic feature with three wetland parameters was found along the north side of Alderpoint Road near the CalFire Station (Figure 8). Exploratory pits were used to investigate this feature. It was determined not to be jurisdictional as the three-parameters are due only to its use as a stormwater conveyance feature for Alderpoint Road. It is actively maintained with regular mowing. There are tire tracks through it from road use. The substrate is composed of compacted gravel and asphalt. The results from the wetland investigation within each of the study area sections are discussed below under subsection c).

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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

Surveys of the site were conducted in preparation of a Biological and Wetland Assessment (SHN, 2023b), which addresses special-status biological resources present or potentially occurring within the site, evaluates project-related impacts, and recommends appropriate avoidance and minimization measures. Special-status plant and animal species present within the study area are described below.

Special-Status Plant Species
As noted in the Biological Resources Setting, 11 special-status plant species were determined to have a moderate or high potential of occurring within the study area. Species with moderate or high potential of occurring within the study area are listed below:

- northern clustered sedge (*Carex arcta*)
- Humboldt County fuchsia (*Epilobium septentrionale*)
- streamside daisy (*Erigeron biolettii*)
- coast fawn lily (*Erythronium revolutum*)
- bristly leptosiphon (*Leptosiphon acicularis*)
- broad-lobed leptosiphon (*Leptosiphon latisectus*)
- heart-leaved twayblade (*Listera cordata*)
- white-flowered rein orchid (*Piperia candida*)
- North Coast semaphore grass (*Pleuropogon hooverianus*)
- Siskiyou checkerbloom (*Sidalcea malviflora* ssp. *patula*)
- Methuselah's beard lichen (*Usnea longissima*)

However, seasonally appropriate surveys of the study area did not locate any special-status plant species. Although potential habitat exists for several special-status plant species, existing and surrounding development, and continuing and historical disturbance associated with roadsides, urban development, and water distribution maintenance make it unlikely that special-status plant species exist within the study area. Therefore, there would be a less-than-significant impact on special-status plant species.

Special-Status Amphibian Species
The red-bellied newt (*Taricha rivularis*) is not listed under either the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA) but is considered a Species of Special Concern (SSC) by CDFW and has heritage ranks of G2/S2. This species breeds in streams and adults live in terrestrial environments within coniferous and riparian forests and woodlands. There is suitable terrestrial habitat available for adults and juveniles within the forested portions of the study area. Logs were turned within the study area to search for amphibians. This species was not observed during site visits, although the ephemeral drainages within the study area may provide dispersal habitat for this species. With the incorporation of the recommendation to avoid and minimize impacts to wetlands/waters (see subsection c) below), this species is not expected to be affected by the project.

Special-Status Bird Species

The American peregrine falcon (*Falco peregrinus anatum*) is delisted under FESA and CESA and has heritage rankings of G4T4/S3S4. This species occurs in forested areas, open areas with rocky outcroppings, and often near water bodies. They nest on cliff ledges, sometimes in hollow or broken snags or large trees, and also use ledges of buildings, bridges, or other structures. Portions of the study area provide urban nesting habitat for this species while the surrounding landscape provides higher quality nesting and foraging habitat. This species was not observed during site visits. The Biological and Wetland Assessment recommends the incorporation of **Mitigation Measure BIO-1** for minimizing or avoiding impacts on nesting birds.

The cooper's hawk (*Accipiter cooperii*) is not listed under FESA or CESA but it is on the Watch List by CDFW and has heritage rankings of G5/S4. This species occurs in forested habitats, including cismontane woodlands and riparian forests. Cooper's hawk prefers open, interrupted, or marginal forests, allowing for increased foraging opportunities. Nest sites are usually in deciduous forested riparian areas. Suitable nesting habitat is available within the forested portions of the study area, although no nests of this species were observed during site visits. The Biological and Wetland Assessment recommends the incorporation of **Mitigation Measure BIO-1** for minimizing or avoiding impacts on nesting birds.

The olive-sided flycatcher (*Contopus cooperi*) is not listed under FESA or CESA, but it is a SSC by CDFW and has heritage rankings of G4/S3. This species occupies various forest and woodland habitats, including mixed coniferous-deciduous forest, and wetland/riparian forested areas. Nest sites are usually in coniferous trees, often with nearby large dead snags. Suitable nesting habitat is available within the forested portions of the study area. The Biological and Wetland Assessment recommends the incorporation of **Mitigation Measure BIO-1** for minimizing or avoiding impacts on nesting birds.

The osprey (*Pandion haliaetus*) is not listed under FESA or CESA but is on the Watch List by CDFW and has heritage rankings of G5/S4. This species can be found within riparian forests, shores, bays, lakes and larger streams. They build large nests on broken treetops or human-made structures within 15 miles of a fish-bearing body of water. Suitable nesting habitat is available within the forested portions of the study area, where some broken treetops were observed, although no nests of this species were observed during site visits. The Biological and Wetland Assessment recommends the incorporation of **Mitigation Measure BIO-1** for minimizing or avoiding impacts on nesting birds.

Without mitigation, there is the potential for significant impacts to nesting birds during construction. With the incorporation of **Mitigation Measure BIO-1**, which requires avoidance of potential impacts to nesting birds either through a seasonal restriction on vegetation removal/ground disturbance or through pre-construction nesting bird surveys, impacts to special-status bird species or nesting birds would be reduced to less than significant.

Special-Status Fish Species

There are no special-status fish with potential to occur within the study area due to lack of suitable stream connectivity and seasonal, ephemeral water flows.

Special-Status Insect Species

There are no special-status insects with moderate or high potential to occur within the study area due to lack of adequate suitable habitat.

Special-Status Mammal Species

The North American porcupine (*Erethizon dorsatum*) is not listed under either FESA or CESA, but has a heritage ranking of G5/S3. This species is a generalist herbivore found in a wide variety of coniferous and mixed woodland habitat. They are commonly found on the ground or in trees. Denning can occur in rocky areas, or if not available, in hollowed-out trees. This species was not observed during site visits, although suitable habitat is available within the forested portions of the study area. Due to project activities being focused on existing infrastructure replacement within developed areas, this species is not expected to be affected by the project.

The pallid bat (*Antrozous pallidus*) is not listed under FESA or CESA and has heritage rankings of G4/S3. This species inhabits a variety of forested habitats such as broadleaf upland forest, cismontane woodland, closed-cone conifer forest, lower and upper montane conifer forest, and north coast conifer forest. They are most common in open, dry habitats with rocky areas for roosting. A focused bat presence survey was not conducted, although limited suitable

roosting habitat is available within the portions of the study area away from town. The Biological and Wetland Assessment recommends the incorporation of **Mitigation Measure BIO-2** for minimizing or avoiding impacts to roosting bats.

The fringed myotis (*Myotis thysanodes*) is not listed under either FESA or CESA but is considered a sensitive species by the Bureau of Land Management (BLM) and has a heritage ranking of G4/S3. This species feeds on beetles, moths, flies, leafhoppers, lacewings, crickets, spiders, harvestmen, and other invertebrates. The fringed myotis roosts in rock crevices, caves, buildings, and mines as well as large snags generally in small clusters of females. Males roost alone or in small separate colony. A focused bat presence survey was not conducted, although suitable habitat is available within the forested portions of the study area and adjacent buildings. The Biological and Wetland Assessment recommends the incorporation of **Mitigation Measure BIO-2** for minimizing or avoiding impacts to roosting bats.

The long-eared myotis (*Myotis evotis*) is not listed under either FESA or CESA but is considered a sensitive species by the BLM and has a heritage ranking of G5/S3. This species feeds on a variety of arthropods including moths, flies, spiders, and especially beetles. The long-eared myotis roosts singly, or in small groups in buildings, crevices, spaces under bark and snags. Caves are used primarily as night roosts. A focused bat presence survey was not conducted, although suitable habitat is available within the forested portions of the study area and adjacent buildings. The Biological and Wetland Assessment recommends the incorporation of **Mitigation Measure BIO-2** for minimizing or avoiding impacts to roosting bats.

The Yuma myotis (*Myotis yumanensis*) is not listed under either FESA or CESA but is considered a sensitive species by the BLM and has a heritage ranking of G5/S4. This species is found in a variety of western lowland habitats, from arid thorn scrub to coniferous forest, but always close to standing water such as lakes and ponds. This species may roost in a variety of places such as buildings and bridges, trees, and rocks. A focused bat presence survey was not conducted. Suitable habitat is available within the forested portions of the study area and adjacent buildings, although standing water is limited. The Biological and Wetland Assessment recommends the incorporation of **Mitigation Measure BIO-2** for minimizing or avoiding impacts to roosting bats.

Without mitigation, there is the potential for significant impacts to special-status bat species during construction through the removal or modification of vegetation or structures and due to ground disturbance. With the incorporation of **Mitigation Measure BIO-2**, which requires avoidance of potential impacts to special-status bats through pre-construction habitat surveys (and subsequent impact prevention measures if bat presence is confirmed or assumed), impacts to special-status bat species would be reduced to less than significant.

Special-Status Reptile Species

No special-status reptiles have potential to occur within the study area due to lack of suitable habitat.

Although potential habitat exists for a number of special-status animal species, existing and surrounding development, and continuing and historic disturbance in the majority of the study area make it unlikely that any special-status animal species exist within the project footprint. With the implementation of **Mitigation Measures BIO-1 and BIO-2**, and based on the information provided above, it has been determined that the proposed project would not have a substantial effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by CDFW or USFWS. Therefore, the proposed project would result in a less-than-significant impact with mitigation incorporated on this resource category.

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

Sensitive vegetation communities, with a rank of S3 or lower, require CEQA analysis if potential impacts may occur. Two sensitive vegetation communities as defined by the Manual of California Vegetation or CDFW Natural Communities list occur within the study area (Figures 7, 8, and 9). These include purple needlegrass grassland (*Stipa* spp. Herbaceous Alliance) and California oatgrass grassland (*Danthonia californica* Herbaceous Alliance) and appropriate species associations (SHN, 2023b).

Purple needlegrass grassland occupies approximately 26,977.9 square feet (0.62 acre) within the study area. The majority of the purple needlegrass grassland is in Section 2 with multiple occurrences totaling 19,484.67 square feet (0.45 acre; Figure 8). Four well-developed, intact purple needlegrass grassland occurrences exist in Section 1, for a

total of 7,493.20 square feet (0.17 acre; Figure 7). The purple needlegrass grasslands observed within the study area are further described to the association level. Within Section 1, all purple needlegrass grasslands were best described as having the *Stipa pulchra* association, which is characterized by high cover and dominance by purple needlegrass. Purple needlegrass grasslands within the study area displayed up to 80 percent cover by purple needlegrass, most of which was flowering at the time of the survey. Common associated species included large quaking grass, coast heron's bill (*Erodium cicutarium*), California oatgrass, rose clover (*Trifolium hirtum*), and purple sanicle (*Sinicola bipinnatifida*), among others. Purple needlegrass grassland within the study area is generally on open, herbaceous-dominated south-facing slopes in locations with a history of minimal recent disturbance. More disturbed areas display much higher cover by non-native annual grasses, including an off-highway vehicle trail that nearly bisects the purple needlegrass grassland immediately south of the Wallan Tank site. Purple needlegrass grassland has a global heritage rank of G3G4 and a State heritage rank of S3S4, and the *Stipa pulchra* association has an additional rarity ranking of S3, therefore qualifying for consideration under CEQA Guidelines checklist IVb.

California oatgrass grassland occupies approximately 5,063.86 square feet (0.11 acre) within the study area. The majority of the California oatgrass grassland is in Section 2 with three distinct occurrences totaling 4,005.15 square feet (0.09 acre; Figure 8). One California oatgrass grassland occurrence is in Section 1 with a total of 446.07 square feet (0.01 acre; Figure 7) and two California oatgrass grassland occurrences are in Section 3 with a total of 612.64 square feet (0.01 acre; Figure 9). The majority of the California oatgrass grassland occurrences do not meet an association level description, however the largest California oatgrass grassland mapped within the study area (Section 2, Figure 8) is best described using the *Stipa pulchra* association, as there is a low percentage of purple needlegrass present within the grassland dominated by California oatgrass. California oatgrass within the study area displayed a wide range of dominance by California oatgrass. High quality examples exhibited up to 70 percent cover by California oatgrass, however most were less than 50 percent cover by California oatgrass. Common associated species included smooth cat's ear (*Hypochaeris glabra*), large quaking grass, ripgut brome (*Bromus diandrus*), and Purdy's iris (*Iris purdyi*), among others. California oatgrass grassland within the study area is generally on open, herbaceous-dominated slopes with varied aspects, primarily in areas with some amount of irregular mowing. California oatgrass grassland does not have a global rarity rank (GNR), but has a State heritage rank of S3, therefore qualifying for consideration under CEQA Guidelines checklist IVb.

The actual limits of construction have yet to be finalized. Mapped sensitive natural communities would be avoided to the greatest extent practicable. However, the project may potentially require vegetation removal that would impact the purple needlegrass grassland and/or California oatgrass grassland habitat (such as near the Wallan Tank [Figure 7], the Robertson Tank and Alderpoint Pump Station [Figure 8], and between the Hurlbutt Tank and Redwood Drive [Figure 9]). Therefore, the impact on sensitive natural communities is considered potentially significant.

The Biological and Wetland Assessment recommends the incorporation of **Mitigation Measure BIO-3** to avoid impacts to sensitive natural communities through project design, marking sensitive natural communities as equipment exclusion zones in construction documents, and installing temporary fencing to prevent accidental incursion. In case impacts to sensitive natural communities cannot be completely avoided, the Biological and Wetland Assessment recommends the incorporation of **Mitigation Measure BIO-4** to mitigate for any unavoidable impacts to mapped sensitive natural vegetation communities through restoration or compensation in consultation with CDFW.

With the incorporation of **Mitigation Measures BIO-3 and BIO-4**, and based on the information provided above, the proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local of regional plans, policies, regulations, or by CDFW or USFWS. Therefore, the proposed project would have a less-than-significant impact with mitigation incorporated on this resource category.

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

As described in the Biological and Wetland Assessment (SHN, 2023b), wetland field investigations were conducted on April 12, 15, and 27, 2022, and February 17, and May 9 and 10, 2023. Ten wetland features and five streams (as delineated by OHWM) were mapped within or near the study area (see Figures 7 through 9).

Wetlands ranged between 176 and 2,244 square feet in open herbaceous-dominated or forested settings for a total of 6,538 square feet of wetlands mapped, of which 5,838 square feet occurs within the study area (see Table 11). Of the

10 wetlands occurring within the study area, 3 are palustrine emergent (herbaceous dominated), 6 are palustrine forested, and 1 is palustrine shrub-scrub wetland. All wetlands displayed some form of historical or on-going anthropogenic disturbance mostly related to road development, reflecting the proximity of the study area to roadsides. Four of the wetlands (Wetlands #1, #2, #5, and #6) have aboveground connectivity to a Traditional Navigable Waterway (TNW); the remaining six wetlands appear to be isolated with no aboveground connectivity to additional wetlands or other waters. Wetlands with aboveground connectivity to a TNW have a total area of 1,178 square feet.

Table 11. Wetland and Stream (OHWM) Delineation Results

Wetland	Cowardin Type	Latitude/Longitude	Area Mapped (Sq ft)	In Study Area (Sq ft)
Wetland #1	PEM1Bx0n[a]	40.107323°/ -123.785221°	176	26
Wetland #2	PEM1Bx0n[a]	40.105844°/ -123.786265°	428	428
Wetland #3	PEM1B0n[b]	40.105112°/-123.789426°	2,244	2,198
Wetland #4	PFO1Bx0n[c]	40.097241°/ -123.791494°	564	564
Wetland #5	PFO1Bx0n[c]	40.097097°/ -123.791654°	189	70
Wetland #6	PFO4Dx0n[d]	40.097741°/ -123.792289°	385	0
Wetland #7	PFO1Bx0n[c]	40.096789°/-123.794666°	1,362	1,362
Wetland #8	PFO1+3D0n[e]	40.096128°/-123.793953°	483	483
Wetland #9	PSS1Bx0n[f]	40.096135°/-123.794846°	306	306
Wetland #10	PFO4BxOn[g]	40.095418°/-123.794582°	401	401
Total Wetland Area			**6,538**	**5,838**

Stream	Cowardin Type	Latitude/Longitude	Segment Mapped (feet)	In Study Area (feet)
Stream #1	R4SB3+4[h]	40.107649°, -123.769978°	191	0
Stream #2	R4SB3+5[i]	40.097571°, -123.791894°	255	110
Stream #3	R4SB3+4[h]	40.096173°, -123.792022°	84	0
Stream #4	R6SB4+5[j]	40.095392°, -123.793482°	160	428
Stream #5	R4SB3+4[h]	40.093909°, -123.793151°	853	0
Total Stream Segments Mapped			**1,543**	**538**

[a] PEM1Bx0n: Palustrine emergent persistent seasonally saturated, excavated, freshwater, mineral soils
[b] PEM1B0n: Palustrine emergent persistent seasonally saturated, freshwater, mineral soils
[c] PFO1Bx0n: Palustrine forested broad-leaved deciduous seasonally saturated, excavated, freshwater, mineral soils
[d] PFO4Dx0n: Palustrine forested needle-leaved evergreen continuously saturated, excavated, freshwater, mineral soils
[e] PFO1+3D0n: Palustrine forested broad-leaved deciduous seasonally and continuously saturated, excavated, freshwater, mineral soils
[f] PSS1Bx0n: Palustrine scrub-shrub broad-leaved deciduous seasonally saturated, excavated, freshwater, mineral soils
[g] PFO4BxOn: Palustrine forested needle-leaved evergreen seasonally saturated, excavated, freshwater, mineral soils
[h] R4SB3+4: Riverine, intermittent, streambed cobble-gravel and sand
[i] R4SB3+5: Riverine, intermittent, streambed cobble-gravel and mud
[j] R6SB4+5: Riverine, ephemeral, streambed sand and mud

A total of five streams were mapped within the study area and the immediate vicinity of the study area (Figures 7 through 9 and Table 11). Of the five streams, four are seasonal intermittent (Streams #1, #2, #3, #5) and one of the streams is ephemeral (Stream #4). Of the five streams, two do not enter the study area, but flow within the immediate vicinity of the study area. These were mapped for planning and setback purposes. Streams #2 and #4 have portions of the stream within the study area for a total of 538 linear feet of stream occurring within the study area. A total of 1,543 linear feet of streams have been mapped within and immediately adjacent to the study area.

Table 12 lists all test pits excavated within the study area and includes the location and wetland parameters observed. Table 11 includes all wetlands and streams observed within or immediately adjacent to the study area, including a center point coordinates and Cowardin classification.

Table 12. Parameters at Each Wetland Test Pit

TP Number	Parameters Present	Parameter Type	Latitude/Longitude
TP1	3	Hydrophytic vegetation, Hydric soils, Hydrology	40.107328°/ -123.785234°
TP2	1	Hydrology	40.107276°/ -123.785288°
TP3	3	Hydrophytic vegetation, Hydric soils, Hydrology	40.105849°/ -123.786279°
TP4	0	None	40.105832°/ -123.786248°
TP5	2	Hydrophytic Vegetation, Hydrology	40.100379°/ -123.792372°
TP6	0	None	40.095421°/-123.793278°
TP7	2	Hydrophytic vegetation, Hydrology	40.097236°/-123.791489°
TP8	3	Hydrophytic vegetation, Hydric soils, Hydrology	40.097243°/-123.791494°
TP9	0	None	40.097868°/-123.791623°
TP10	3	Hydrophytic vegetation, Hydric soils, Hydrology	40.097096°/-123.791654°
TP11	0	None	40.097116°/-123.791507°
TP12	2	Hydric soils, Hydrology	40.097742°/-123.792291°
TP13	0	None	40.097752°/-123.792331°
TP14	0	None	40.095442°/-123.793774°
TP15	0	None	40.095160°/-123.792261°
TP16	2	Hydrophytic vegetation, Hydrology	40.094943°/-123.792644°
TP17	0	None	40.094654°/-123.793137°
TP18	0	None	40.095018°/-123.793193°
TP19	3	Hydrophytic vegetation, Hydric soils, Hydrology	40.095418°/-123.794582°
TP20	0	None	40.095396°/-123.794566°
TP21	3	Hydrophytic vegetation, Hydric soils, Hydrology	40.096789°/-123.794666°
TP22	0	None	40.096873°/-123.794747°
TP23	3	Hydrophytic vegetation, Hydric soils, Hydrology	40.096128°/-123.793953°
TP24	0	None	40.096152°/-123.793930°
TP25	3	Hydrophytic vegetation, Hydric soils, Hydrology	40.105112°/-123.789426°
TP26	1	Hydric soils	40.105163°/-123.789394°
TP27	3	Hydrophytic vegetation, Hydric soils, Hydrology	40.096135°/-123.794846°
TP28	1	Hydric soils	40.096109°/-123.794837°

The actual limits of construction have yet to be finalized. Mapped wetlands and streams would be avoided to the greatest extent practicable; however, the project may potentially require temporary disturbance of wetlands and/or streams within the construction area (such as a wetland near the proposed Alderpoint Pump Station on the CALFIRE property [Figure 8] and/or the stream near the Hurlbutt Tank [Figure 9]). In addition to these potential direct impacts, construction activities have the potential to indirectly impact downslope wetlands and streams through the discharge of sediment and/or other pollutants. Therefore, the impact to wetlands and other jurisdictional waters is considered potentially significant.

The Biological and Wetland Assessment recommends the incorporation of Mitigation Measure BIO-5 to avoid impacts to wetlands and other jurisdictional waters through the avoidance to the greatest extent feasible in the final design plans, identification of wetlands/waters as equipment exclusion zones in construction documents, and placement of suitable perimeter control best management practices (BMPs). In case the fill of wetlands and other jurisdictional waters cannot be completely avoided, the Biological and Wetland Assessment recommends the incorporation of Mitigation Measure BIO-6 to

compensate for any loss of wetland habitat so there is no net loss of wetlands, through development and implementation of a Mitigation and Monitoring Plan to be prepared in coordination with the jurisdictional agencies.

With the incorporation of Mitigation Measures BIO-5 and BIO-6, and based on the information provided above, the proposed project would 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 would 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

Project construction and operations do not include in-water work or any other activity that might impede fish migration. Terrestrial project construction and operations do not include construction of any barriers to wildlife migration (such as extensive fencing, highly developed roadway, or large structures). Deterrence of migratory and nesting birds associated with noise is addressed in subsection a) above with **Mitigation Measure BIO-1** to ensure the potential impact to migratory and nesting birds would be less than significant.

Based on the information provided above, the proposed project would 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 would have a less-than-significant impact 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

The Open Space and Conservation Element of the Humboldt County General Plan (Humboldt County, 2017) summarizes policies germane to the protection of biological resources. Applicable policies include:

- BR-P5: Streamside Management Areas,
- BR-P6: Development within Streamside Management Areas,
- BR-P7: Wetland Identification,
- BR-S4: Sensitive Habitat Defined,
- BR-S5: Streamside Management Areas Defined,
- BR-S6: Development within Stream Channels,
- BR-S7: Development within Streamside Management Areas,
- BR-S8: Required Mitigation Measures,
- BR-S9: Erosion Control,
- BR-S10: Development Standards for Wetlands, and
- BR-S11: Wetlands Defined.

Policy BR-S7 allows for development within Streamside Management Areas (SMAs) including that allowed under BR-S6 which includes "I. Other essential projects… provided they are the least environmentally damaging alternative, or necessary for the protection of the public's health and safety." Policy BR-S10 established that development standards for wetlands shall be consistent with the standards for SMAs. The SMA width applied to wetlands is designated as 50 feet for seasonal wetlands and 150 feet for perennial wetlands. The setback begins at the edge of the delineated wetland. The project is anticipated to potentially require a Special Permit for ground disturbance and tree removal within SMAs, such as for the new Zone 1 distribution main to be installed between the Main Tank and the existing Zone 1 water main along Redwood Drive (Figure 5A) and for the new water line serving the CALFIRE site (Figure 5C).

Humboldt County regulates tree removal for trees larger than 12 inches in diameter that are in residential zones through a Special Permit. The only project areas that have a residential zoning type are 1) the Tobin Well site which is zoned Residential One-Family (R-1), and 2) the area containing the existing Hurlbutt Tank, proposed Main Tank, and Upper Maple Lane Pump Station which is zoned Residential Suburban (RS-B-5(5)). No tree removal is proposed at the Tobin Well site (Figure 5). Removal of trees would occur during construction of the proposed Main Tank and the new Zone 1 distribution main to be installed between the Main Tank and the existing Zone 1 water main along Redwood

Drive (Figure 5A), potentially including trees larger than 12 inches in diameter. If so, a Special Permit would be obtained from Humboldt County.

The project would be required to obtain a General Plan Conformance Review and possibly a Special Permit from Humboldt County, and would be required to be consistent with all applicable provisions of the Humboldt County General Plan. No conflicts with policies or ordinances protecting biological resources have been identified.

For the reasons explained above, the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Therefore, the proposed project would 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

The proposed project is not located within the boundaries of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan. As such, the project would not conflict with the provisions of an adopted habitat conservation plan. Therefore, the proposed project would have no impact on this resource category.

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. Nesting Bird Surveys: 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 September and mid-March, when birds are not typically nesting, or

- If vegetation removal, structure modification or removal, or ground-disturbing activity is to take place during the nesting season (March 15 to August 31 for most birds), a qualified biologist shall conduct a pre-construction nesting bird survey. Preconstruction 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-2. Protect Special-status Bats: Within two weeks prior to construction, a qualified bat biologist shall conduct habitat surveys for special-status bats. Survey methodology shall include visual examination of suitable habitat areas and signs of bat use. Trees, water tanks, pump stations, and other potential bat habitats within at least 100 feet of construction activities shall be examined. If habitat exists, species presence and site use patterns shall be documented by using ultrasonic detectors to determine if special-status bat species are present on site. Bat presence in the project area may vary seasonally and annually. Surveys shall be conducted in a manner to detect the presence of hibernating or torpid bats, reproductive colonies and/or migratory stop-over roosts. If no bat utilization or roosts are found, then no further study or action is required. If bats are found to be present within an area of potential impact, or presence is assumed, a bat specialist shall be engaged to advise the best method to prevent impact. This may include, but would not be limited to:

- Consultation with the California Department of Fish and Wildlife to determine appropriate measures for protecting bats with young if present, and for implementing measures to exclude non-breeding bat colonies during construction process.

- For trees, phased removal of trees where selected limbs and branches not containing cavities are removed on the first day, with the remainder of the tree removed on the second day.

- For structures, gradual modification of the habitat itself discouraging continued roosting by any bats that may be present, followed by installing physical barriers to prevent bats from entering the structure(s).

Mitigation Measure BIO-3. Avoidance and Minimization Measures to Protect Sensitive Natural Communities: The District shall implement the following avoidance and protection measures for sensitive natural communities (purple needlegrass grassland and California oatgrass grassland) that would not be impacted during project construction:

1. The District shall attempt to avoid or minimize impacts to sensitive natural communities to the greatest extent feasible in the final design plans.

2. Sensitive natural communities shall be clearly identified in the construction documents and reviewed by the District prior to issuing for bid to ensure they are clearly marked as equipment exclusion zones during construction.

3. Prior to construction, temporary fencing shall be installed between the sensitive vegetation communities and the project if construction activities will occur within 50 feet of the sensitive vegetation community, to prevent accidental incursion.

Mitigation Measure BIO-4. Mitigation for Sensitive Natural Communities: Construction within mapped sensitive natural communities (purple needlegrass grassland and California oatgrass grassland) shall be avoided to the greatest extent practicable. If impacts are unavoidable and mapped purple needlegrass grassland or California oatgrass grassland is removed or detrimentally impacted, mitigation would occur. A Mitigation and Monitoring Plan shall be prepared in coordination with the California Department of Fish and Wildlife. The Plan shall be acceptable to the California Department of Fish and Wildlife and include the following elements: proposed mitigation ratios; description and size of the restoration or compensatory area; site preparation and design; plant species; planting design and techniques; maintenance activities; plant storage; irrigation requirements; success criteria; monitoring schedule; and remedial measures. The ratio and conditions of mitigation would be negotiated in consultation with the California Department of Fish and Wildlife. The Plan shall be implemented by the District.

Mitigation Measure BIO-5. Avoidance and Minimization Measures to Project Wetlands/Waters: The District shall implement the following avoidance and protection measures for Waters of the United States and Waters of the State that would not be impacted (filled or excavated) during project construction:

1. The District shall attempt to avoid or minimize impacts to wetlands/waters to the greatest extent feasible in the final design plans.

2. Wetlands/waters shall be clearly identified in the construction documents and reviewed by the District prior to issuing for bid to ensure they are clearly marked as equipment exclusion zones during construction.

3. Suitable perimeter control BMPs, such as silt fences, or straw wattles shall be placed below all construction activities at the edge of surface water features to intercept sediment before it reaches the waterway. These BMPs shall be installed prior to any clearing or grading activities.

Mitigation Measure BIO-6. Mitigation for Loss of Wetlands and Waters: The District shall avoid fill of jurisdictional wetlands and waters to the extent feasible. If fill cannot be avoided, the District shall compensate for the loss of wetland habitat so that there is no net loss in wetlands. The District shall compensate for impacts to identified wetlands through restoration, rehabilitation, and/or creation of wetland at a ratio of no less than 1:1. A Mitigation and Monitoring Plan shall be prepared in coordination with the NCRWQB, the USACE and CDFW. Compensation for wetlands shall occur so there is no net loss of wetland habitat at ratios to be determined in consultation with the NCRWQCB. The Plan shall be acceptable to the regulatory agencies with jurisdiction over wetlands and waters and include the following elements: proposed mitigation ratios; description and size of the restoration or compensatory area; site preparation and design; plant species; planting design and techniques; maintenance activities; plant storage; irrigation requirements; success criteria; monitoring schedule; and remedial measures. The Plan shall be implemented by the District.

The District shall also compensate for impacts to other waters by obtaining required permits from the U.S. Army Corp of Engineers, the North Coast Regional Water Quality Control Board, and/or the California Department of Fish and Game which shall be received prior to the start of any on-site construction activity. The District shall ensure any additional measures outlined in the permits are implemented.

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**		

Archaeological and other resources can be damaged through uncontrolled public disclosure. Archeological site locations and culturally sensitive information is considered confidential and public access to such information is restricted by State and federal law, therefore this information has been redacted for use in the Mitigated Negative Declaration (MND). Professionally qualified individuals, as determined by the California Office of Historic Preservation, may contact the lead agency in order to inquire about its availability.

Information regarding the location, character, or ownership of a historic resource is exempt from the Freedom of Information Act pursuant to 16 U.S.C. 470w-3 (National Historic Preservation Act) and 16 U.S.C. § 470hh (Archaeological Resources Protection Act) and California State Government Code, Section 6254.10.

Setting: A Cultural Resources Investigation was completed for the proposed project by William Rich and Associates (WRA). The purpose of this cultural resources investigation was to document the presence of historical and precontact era sites and other cultural resources, that according to Section 15064.5 of CEQA and Section 106 of the National Historic Preservation Act would qualify as either an historic property or an historical resource and therefore be eligible for listing to the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR). The methods used to complete this investigation included a record search of existing survey reports and resource records at the Northwest Information Center; 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 and adjacent terrain (WRA, 2023).

According to the Northwest Information Center (NWIC) files, one previously documented historic building complex, the Garberville Forest Fire Station (P-12-000930) was documented on the CALFIRE parcel where the Alderpoint Pump Station is proposed. The Garberville Forest Fire Station contains buildings that are either considered eligible or have potential to become eligible by the state agency CALFIRE. Because these buildings are not proposed for any alterations, nor is the immediate view around the buildings, or in the station in general as part of the current project - their current condition was not assessed nor were they re-evaluated. Utilizing the rear of the property for project elements as proposed was determined to not impact the ability for this site to convey significance now or in the future.

The Cultural Resources Investigation identified the Hurlbutt Tank, Upper Maple Lane Pump Station, and Robertson Tank as being more than 50 years of age. However, they were recommended not eligible under the significance criteria set forth for built environment resources. These structures did not appear to be the work of a master craft person, utilize unique or outstanding materials, and did not appear to be otherwise associated with important individuals. No further recommendations were given for the demolition of these structures. The Cultural Resources Investigation found that no recommendations were needed for the Wallan Tank, Arthur Pump Station, or Wallan Pump Station.

The Cultural Resources Investigation found that no other 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 as defined under 36 CFR Part 800.16, exist in the direct limits of the proposed project areas. It considered it unlikely, given the project setting, background research, intensive field survey, and scope of undertaking, that significant cultural resources would be discovered during project implementation.

Although discovery of cultural resources during project construction was not anticipated, the Cultural Resources Investigation offered recommendations to follow in that event. These recommendations were designed to ensure that potential project impacts on inadvertently discovered cultural resources are eliminated or reduced to less than significant levels.

Provided that the recommended inadvertent discovery protocols are implemented, 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, it found that tribal cultural resources (PRC 21074) do not appear to be present.

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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 with Mitigation Incorporated

As described in the Cultural Resources Setting, a Cultural Resources Investigation was prepared for the proposed project (WRA, 2023). One previously documented historic building complex, the Garberville Forest Fire Station (P-12-000930) was documented on the CALFIRE parcel where the Alderpoint Pump Station is proposed. The Garberville Forest Fire Station contains buildings that are either considered eligible or have potential to become eligible by the state agency CALFIRE. Because these buildings are not proposed for any alterations, nor is the immediate view around the buildings, or in the station in general as part of the current project, their current condition was not assessed nor were they re-evaluated. Utilizing the rear of the property for project elements as proposed was determined to not impact the ability for this site to convey significance now or in the future.

The Cultural Resources Investigation identified the Hurlbutt Tank, Upper Maple Lane Pump Station, and Robertson Tank as being more than 50 years of age. However, they were recommended not eligible under the significance criteria set forth for built environment resources. These structures did not appear to be the work of a master craft person, utilize unique or outstanding materials, and did not appear to be otherwise associated with important individuals. No further recommendations were given for the demolition of these structures. The Cultural Resources Investigation found that no recommendations were needed for the Wallan Tank, Arthur Pump Station, or Wallan Pump Station.

Although discovery of cultural resources (including historical resources) during project construction was not anticipated, the Cultural Resources Investigation offered recommendations to follow in that event. These recommendations were designed to ensure that potential project impacts on inadvertently discovered cultural resources are eliminated or reduced to less than significant levels.

Provided that the recommended inadvertent discovery protocols are implemented, 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)). For this reason, Protocols for Inadvertent Discovery of Cultural Resources have been included as **Mitigation Measure CR-1** for the proposed project. This measure was designed to ensure that the potential project impacts on inadvertently discovered cultural resources are eliminated or reduced to less than significant levels.

With the implementation of **Mitigation Measure CR-1** and for the reasons explained above, it has been determined that the proposed project would 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, 2023). Other than the Garberville Forest Fire Station (P-12-000930) discussed above in subsection a), the Cultural Resources Investigation found that no other 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 as defined

under 36 CFR Part 800.16, exist in the direct limits of the proposed project areas. It considered it unlikely, given the project setting, background research, intensive field survey, and scope of undertaking, that significant cultural resources would be discovered during project implementation.

Although discovery of cultural resources during project construction was not anticipated, the Cultural Resources Investigation offered recommendations to follow in that event. These recommendations were designed to ensure that potential project impacts on inadvertently discovered cultural resources are eliminated or reduced to less than significant levels. For this reason, Protocols for Inadvertent Discovery of Cultural Resources have been included as **Mitigation Measure CR-1** for the proposed project. This measure was designed to ensure that the potential project impacts on inadvertently discovered cultural resources are eliminated or reduced to less than significant levels.

Provided that the recommended inadvertent discovery protocols are implemented, 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)).

With the implementation of **Mitigation Measure CR-1** and for the reasons explained above, it has been determined that the proposed project would 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

The Cultural Resources Investigation did not find evidence of human remains, including those interred outside of formal cemeteries. However, there is a possibility that human remains and historic burial sites could exist in the area and may be uncovered during project development. Therefore, Protocols for Inadvertent Discovery of Cultural Resources have been included as **Mitigation Measure CR-1** for the proposed project. This measure was designed to ensure that the potential project impacts on inadvertently discovered cultural resources are eliminated or reduced to less than significant levels.

With the implementation of **Mitigation Measure CR-1** and for the reasons explained above, it has been determined that the proposed project would 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. Protocols for Inadvertent Discovery of Cultural 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 (precontact sites and select historic period sites), the Tribal Historic Preservation Officers (THPOs) and Council Members for the Bear River Band of Rohnerville Rancheria, Round Valley Reservation/Covelo Indian Community, the InterTribal Sinkyone Wilderness Council, and the Wailaki 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. Precontact materials which could be encountered include: obsidian and chert debitage or formal tools, grinding implements, (e.g., 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.

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: 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 (RCEA, 2023a). The CCE program procures approximately 47% of its power from renewable sources (RCEA, 2023b). 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) (RCEA, 2023a). RCEA is pursuing the following procurement goals which would further increase the percentage of power from renewable resources for all of its customers – 100% carbon-free electricity by 2025 (RCEA Board goal adopted in 2019) and 100% local carbon-free electricity by 2030 (Board goal adopted in 2016) (RCEA, 2023c).

Aside from the raw water pump station and the surface water treatment plant, the District has no permanently installed backup generators in the water system. Hurlbutt, Arthur, and Wallan Pump Stations can be powered by the portable trailer-mounted generator the District uses during grid power outages. Permanently mounted backup generators provide increased reliability during power outages.

Various electrical components at the booster pumping stations have exceeded their useful design life and require replacement. These include:

- The existing pump control panel, remote telemetry panel, and pumps at the Upper Maple Lane Pump Station
- The existing radio antennae and pumps at the Alderpoint and Wallan Pump Stations
- Most of Wallan Pump station's electrical equipment, including the pump control panel, building electrical and pump station instrumentation

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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

During construction of the proposed project, energy would be consumed in the form of petroleum-based fuels used to power off-road construction vehicles and equipment, construction worker and delivery truck travel to and from the project site, and to operate generators to provide temporary power for electronic equipment.

There are no unusual project characteristics that would need construction equipment or practices that would be less energy efficient than at comparable construction sites in the region or state. Construction activity would be temporary and fuel consumption associated with construction activities would cease once construction is completed. Furthermore, various equipment would be supplied by onsite generators, and would not require permanent connections to or otherwise burden local utilities. Due to the temporary nature of construction activities, the fuel and energy needed during construction would not be considered a wasteful or inefficient use of energy. Therefore, it is expected that construction energy consumption associated with the project would be comparable to other similar construction projects, and would therefore not be inefficient, wasteful, or unnecessary.

Operation

Energy use during operation of the water system would relate primarily to water treatment and pumping. The project would result in improved water efficiency through the following:

- Water Loss Reduction
    - Tank Replacement—This project would replace the existing in-ground concrete finished water storage tank (Hurlbutt/Main Tank) and the existing redwood drinking water storage tank (Wallan Tank). Both of these existing tanks are significantly leaking, which results in water losses in the distribution system and additional diversions of water from the South Fork of the Eel River. By replacing these tanks with new tanks, the water losses associated with leaking tanks would be eliminated from the system and would leave more water in the river.
    - Distribution System Upgrades—This project would replace a portion of the existing water distribution piping in the system. The existing distribution piping is nearing the end of its useful life and has experienced breaks and leaks. By replacing the aged distribution piping, water losses associated with leaks and water main breaks would be significantly reduced in areas where new distribution piping is installed and would eliminate the additional diversion of water from the river associated with these leaks.
- Reduced Demand for Raw Water—By eliminating or reducing sources of water loss in the water storage tanks and distribution piping, the demand for raw water from the river would be reduced since less water would be wasted through leaks and breaks in the system.

The project would result in improved energy efficiency through the following:

- Reduced Treatment Requirements—By eliminating or reducing sources of water loss in the system, as described above, the demand on the water treatment plant would be reduced because less treated water would be wasted through leaks and breaks. This would result in reduced energy consumption associated with operating the surface water treatment plant.
- Reduced Pumping Efforts—By eliminating or reducing sources of water loss in the system, as described above, the demand on the pumping systems would be reduced because less treated water would be wasted through leaks and breaks. This would result in reduced energy consumption associated with pumping raw and treated water.
- Energy Efficient Infrastructure—The new pump stations and pump station modifications associated with this project are expected to result in less energy consumption because they would include equipment that is more energy efficient, such as modern pumps with variable frequency drives.

For the reasons explained above, construction and operation of the proposed project would 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

As described under subsection a) above, the project would not result in the inefficient or wasteful use of energy. The project would result in improved energy efficiency through reduced treatment requirements, reduced pumping efforts, and the use of energy efficient infrastructure. 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.

Based on the information provided above, the proposed project would 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: An Engineering Geologic and Geotechnical Investigation Report was prepared for the project (SHN, 2023c). The report focuses on characterization of the geologic conditions (geohazards) at the proposed water tanks, water lines, and pump station sites, and development of geotechnical recommendations relative to the construction of new water storage tanks and associated infrastructure. Specifically, elements of the project requiring geotechnical consideration include the following:

- Construction of a partially buried, approximately 550,000-gallon water storage tank (Main Tank), pump station (Maple Lane Pump Station), generator, and waterlines
- Installation of a buried waterline at the Main Tank site
- Replacement of the Wallan Tank with an aboveground steel tank
- Construction of a new pump station (Alderpoint Pump Station) across Alderpoint Road from the existing Arthur Road Pump Station. The new Alderpoint Pump Station would replace the existing Arthur Road Pump Station

- Visual evaluation of the stability of the Wallan Pump Station

- Demolition of the Robertson Tank.

The project area is located within the western portion of the Coast Range Geomorphic Province in southern Humboldt County, California. The site is located in a complex and dynamic geologic environment, approximately 40 miles southeast of Cape Mendocino. Cape Mendocino marks the intersection of three crustal plates known as the Mendocino Triple Junction and is characterized by active tectonic deformation and high rates of seismicity.

Geologic mapping of the area (Figure 10) shows that the water system is primarily underlain by bedrock associated with the Quaternary-Tertiary-aged undifferentiated Wildcat Group. Bedrock associated with the Broken Formation of the Cretaceous-Jurassic aged Franciscan Complex is located directly east of the Wallan Tank in the northeastern part of the project area. The two geologic units are separated along a northwest-trending contact, which is interpreted as a relict bedrock fault. Portions of the project vicinity are underlain by alluvial terrace deposits associated with the ancestral Eel River (shown by Qt on Figure 10). These alluvial terraces typically consist of an abrasion platform cut across Wildcat sediments, with terrace sediments consisting of terrestrial alluvial deposits (sand, silt, and gravel). Bedrock of the undifferentiated Wildcat group is described as mudstone, shale, sandstone, siltstone, and minor amounts of conglomerate with highly variable degrees of consolidation. Specific descriptions of the geologic units within the project vicinity are presented on Figure 10A.

Geologic mapping shows areas of landsliding (Qls on Figure 10) in the project vicinity; these occur as translational/ rotational and earthflow slides. Areas of "disrupted ground" are shown throughout the project vicinity, which are described as:

> "Irregular ground surface caused by complex landsliding processes resulting in features that are indistinguishable or too small to delineate individually at the map scale; also may include areas affected by downslope creep, expansive soils, and/or gully erosion; boundaries are usually indistinguishable." (Spittler, 1984)

The water distribution system is within the Garberville-Briceland fault zone. The Garberville-Briceland fault zone is a discontinuous series of north-northwest trending lineaments that extend south-southeast from Bull Creek, through Garberville, to just north of Laytonville. There is no documented recent (Holocene) activity on the Garberville fault, nor are there mapped faults crossing the water system. The Garberville-Briceland fault zone is not zoned as active by the State of California (California Geological Survey [CGS], 2018).

The Engineering Geologic and Geotechnical Investigation Report assessed potential geologic/geotechnical hazards for the site including seismic ground shaking, surface fault rupture, and slope instability. The results are discussed below.

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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. Although the project site resides in a seismically active area with the potential for strong earthquakes and strong ground shaking, the project site is not located in a state-mandated Earthquake Fault Zone (CGS, 2018). The nearest known active fault is the San Andreas fault, which is approximately 15 miles southwest of the project site. The San Andreas fault is a northwest-trending strike-slip fault. During the field visit for the Engineering Geologic and Geotechnical Investigation Report, SHN did not observe any geomorphic evidence suggesting recent surface rupture in the project area (SHN, 2023c).

Based on the information provided above, it has been determined the proposed project would 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.

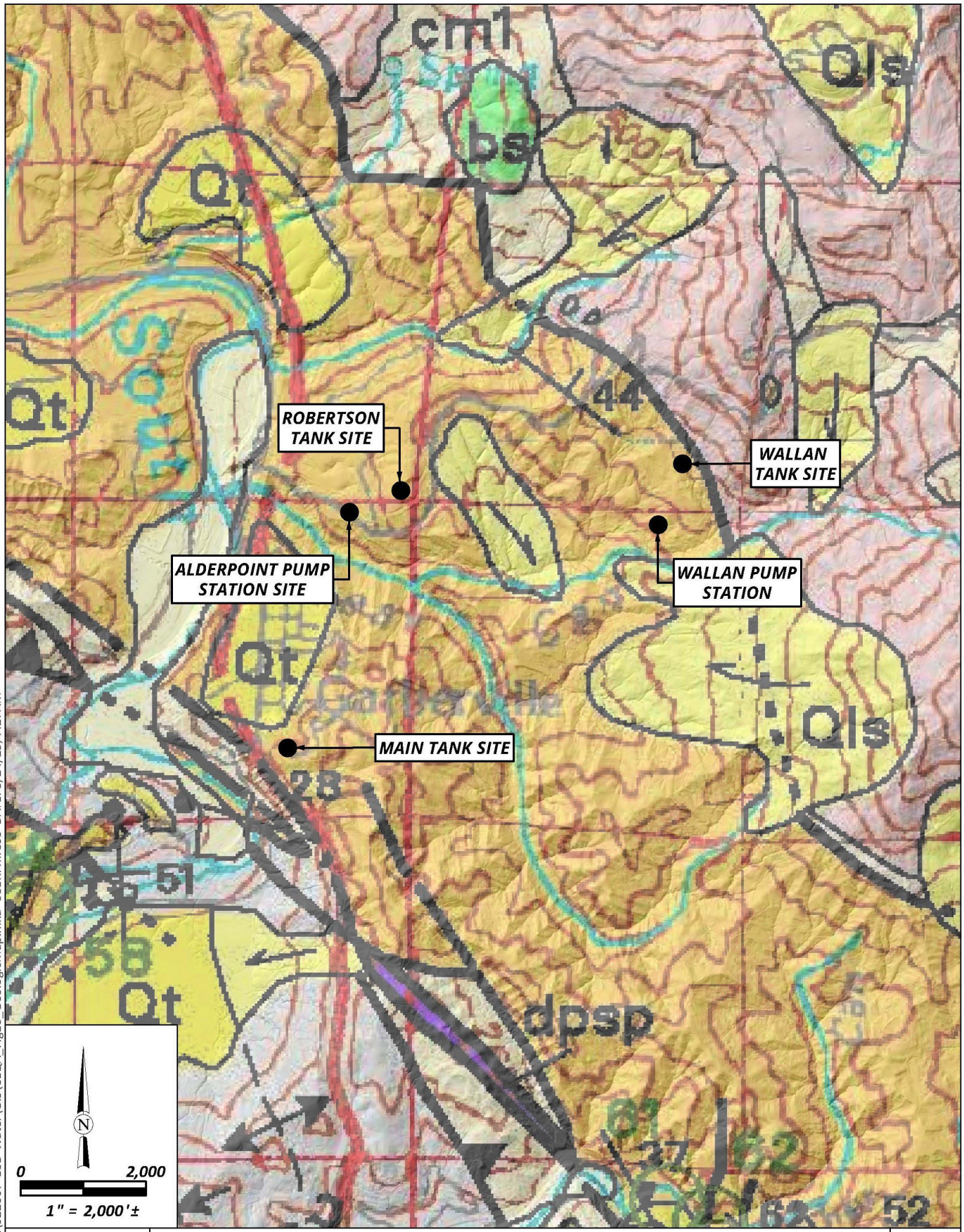
a.ii) *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?* Less Than Significant with Mitigation Incorporated

The project site is in a seismically active area with the potential for strong earthquakes and strong ground shaking and is within the Garberville-Briceland fault zone. This fault zone is not considered active by the State of California (CGS, 2018). The project site is located approximately 15 miles northeast of the northern most extent of the San Andreas fault. As discussed under subsection a.i), the project site is not located in a state-mandated Earthquake Fault Zone. Strong seismic ground shaking should be expected during the lifespan of the proposed water storage tanks and associated infrastructure. The intensity of ground shaking from earthquakes would depend on several factors, including the distance from the site to the earthquake focus, the magnitude and duration of the earthquake, and the response of the underlying soil. At a minimum, it will be necessary to design and construct the proposed structures in accordance with the earthquake-resistant provisions of the governing code (SHN, 2023c).

Based on the results of the field and laboratory investigation, the Engineering Geologic and Geotechnical Investigation Report found that construction of the water storage tanks and pump stations at the project sites is feasible from a geohazard and geotechnical standpoint, if the report's recommendations are implemented during design and construction. The major geotechnical considerations for development of the proposed water storage tanks and pump stations are the potential for strong seismic ground shaking and the proximity to steep, locally unstable slopes (SHN, 2023c).

Therefore, adherence to the recommendations of the Engineering Geologic and Geotechnical Investigation Report (SHN, 2023c) shall be required as **Mitigation Measure GEO-1** to minimize potential risks from strong seismic ground shaking.

With the implementation of **Mitigation Measure GEO-1** and based on the information provided above, it has been determined the proposed project would 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.



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Garberville Sanitary District
Garberville Water System Improvements
Garberville, California

Geologic Map
McLaughlin, 2000
August 2023 - 022067

Figure 10

QUATERNARY AND TERTIARY OVERLAP DEPOSITS

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

Qls

Landslide deposits (Holocene and Pleistocene)-Unsorted clay- to boulder-size debris and broken rock masses that have moved downslope in debris flows, earth flows, and as more-or-less intact rotational or translational blocks, largely from Pleistocene to present. Only large landslides, occupying tens to hundreds of acres, are depicted here.

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)

COAST RANGES PROVINCE

FRANCISCAN COMPLEX

Coastal Belt

Yager terrane (Eocene to Paleocene?)

Sedimetary rocks of the Yager terrane (Eocene to Paleocene?)-Argillite and arkosic sandstone rhythmically interbedded, thin to medium bedded; massive to thickly bedded arkosic sandstone with minor interbeds of argillite; and minor lenses of polymict boulder to pebble conglomerate. Southwest of Garberville, unit highly folded, but locally may be penetratively sheared or broken. Argillite and interbedded fine-grained sandstone is commonly calcareous and may have abundant plant debris in places. Sandstone characteristically contains prominent detrital muscovite. Based on fossil dinoflagellates and on spores and pollen from carbonate concretions in argillite, age of terrane is late to middle Eocene. Locally the lower beds of the terrane may be as old as Paleocene (McLaughlin and others, 1994). The Yager terrane is divided into 3 subunits based principally on topographic expression in aerial photographs and outcrop data:

y1

Sheared and highly folded mudstone-Includes minor rhythmically interbedded sandstone, locally with lenses of conglomerate. Exhibits irregular topography lacking a well-incised system of sidehill drainages

Central belt

Melange of the Central belt (early Tertiary to Late Cretaceous)-Consists of a matrix of clayey, penetratively sheared argillite and fine-grained sandstone, locally with intercalated green tuff and hard elliptical carbonate concretions armored with scaly black argillite. Includes blocks up to several kilometers across, of diverse lithologies and ages. Age range of the Central belt is based on the paleontologic and isotopic age range of rocks in the melange and on inferred range in age of penetrative shearing, boudinage, and related deformation that occurred during melange formation. Components of the Central belt melange include:

Unnamed Metasandstone and meta-argillite (Late Cretaceous to Late Jurassic)-Arkosic lithic metasandstone and meta-argillite, reconstituted to textural zones 1 to 2A (Jayko and others, 1989) and metamorphosed to pumpellyite and lawsonite grade, with less than 1/2 percent K-feldspar (fig. 5). Unit locally includes cobble- to pebble-size polymict conglomerate or monomict chert-pebble conglomerate. Locally, the metasandstone and meta-argillite depositionally overlie radiolarian chert in composite melange blocks. In some places in blocks metasandstone is imbricated or structurally interleaved with chert and basalt. Fossils from unnamed metasandstone and meta-argillite range in age from Late Cretaceous to Late Jurassic. Carbonate concretions and local, thin, silty, hemipelagic chert beds and lenses in melange matrix contain radiolaria and dinoflagellates ranging in age from Late Jurassic to Early Cretaceous (Tithonian to Aptian or Albian). Some metasandstone and conglomerate in composite blocks depositionally overlie chert with a Late Cretaceous (Cenomanian) radiolarian assemblage. The unnamed metasandstone and meta-argillite is divided into subunits of melange and broken formation based principally on topographic expression in aerial photographs and outcrop data:

cm1

Melange-Predominantly penetratively sheared, locally tuffaceous, scaly meta-argillite and less abundant blocks of metasandstone. Exhibits rounded, poorly incised, lumpy and irregular topography

cb1

Broken formation-Consists of bedded to massive, locally folded, rarely conglomeratic metasandstone and meta-argillite, with only minor amounts of highly sheared rocks. Exhibits sharp-crested topography with regular, well-incised sidehill drainages

bs

Basaltic rocks (Cretaceous and Jurassic)-Includes pillowed and non-pillowed flows, flow breccias, submarine tuff, and diabase. Basalt commonly is alkalic (high TiO_2 content). Basalt may be overlain by radiolarian chert or foraminiferal limestone. Age of locally overlying limestone indicates some basalt to be as young as Middle Cretaceous (Aptian); where overlain by radiolarian chert, basalt is no younger than Early Jurassic. Basalt is metamorphosed to low greenschist grade

dpsp

Serpentinite melange (Jurassic?)-Partially to completely serpentinized ultramafic rocks (harzburgite, dunite), locally highly sheared, and includes minor masses of cumulate gabbro, diabase or basalt. Present beneath diabase and (or) basalt of the Benbow and Bear Buttes areas (Sheet 3). Contact with overlying ophiolitic rocks probably is an attenuation fault. Unit is partially equivalent to some serpentinite interspersed with and assigned to Central belt of Franciscan Complex

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Garberville Sanitary District
Garberville Water System Improvements
Garberville, California

Geologic Map Legend
McLaughlin, 2000
August 2023 - 022067

Figure 10A

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 in the Geology and Soils Setting, 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 is within areas of moderate and high slope instability (Humboldt County, 2023).

Liquefaction is a phenomenon whereby unconsolidated and/or near-saturated soils lose cohesion and are converted to a fluid state as a result of severe vibratory motion. The relatively rapid loss of soil shear strength during strong earthquake shaking results in temporary, fluid-like behavior of the soil. Soil liquefaction causes ground failure that can damage roads, pipelines, underground cables, and buildings with shallow foundations. The Humboldt County GIS system did not identify any areas of potential liquefaction in the project area. The Engineering Geologic and Geotechnical Investigation Report did not identify any areas of potential liquefaction in the project area.

Design and construction of the project would incorporate appropriate engineering practices to ensure seismic stability as required by the California Building Code (CBC). In addition, the proposed project shall adhere to the recommendations of the Geologic Hazard and Geotechnical Investigation (SHN, 2023c) relating to the design and construction of the proposed project. This requirement has been included as **Mitigation Measure GEO-1** to minimize potential risks from seismic hazards.

In compliance with existing laws and regulations, with the implementation of **Mitigation Measure GEO-1,** and based on the information provided above, it has been determined the proposed project would 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 with Mitigation Incorporated

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.

According to the Humboldt County GIS system, the project is within areas of moderate and high slope instability (Humboldt County, 2023). The Humboldt County GIS system also shows a historic landslide near the Wallan Tank where water piping is to be replaced.

Numerous landslides and areas of unstable ground are shown on available geologic maps. The type and concentration of landsliding is relative to the underlying bedrock; more slides are mapped in areas underlain by Broken Formation bedrock, which does not underlie the improvement sites. Relatively few are mapped (or observed) in areas underlain by Wildcat Group sediments. The Engineering Geologic and Geotechnical Investigation Report did not document any features related to recent landsliding (tension cracks, seeps, springs, rills, or gullies) at the proposed new infrastructure sites, although unstable ground is mapped in the site vicinity. Failures occur along roads within the service area (Alderpoint Road, for example), but these appear related to construction methods (unsupported side cast fills on steep slopes) rather than underlying slope instability in the native soils. Due to the site location in a seismically active area and the potential for strong seismic ground shaking to occur at the site, there is an ongoing potential for localized co-seismic landsliding to occur along steep slopes throughout the project area (SHN, 2023c).

Therefore, adherence to the recommendations of the Engineering Geologic and Geotechnical Investigation Report (SHN, 2023c) shall be required as **Mitigation Measure GEO-1** to minimize potential risks from landslides.

With the implementation of **Mitigation Measure GEO-1** and based on the information provided above, it has been determined that the proposed project would 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 with mitigation incorporated on this resource category.

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

Construction of the improvements proposed by the project would include grading, excavation, trenching, and other ground-disturbing activities that have the potential to result in soil erosion or the loss of topsoil. However, the project description includes various best management practices (Section 2.3 – Proposed Project) which would serve to avoid and minimize potential water quality impacts. Also, because construction is anticipated to involve work in or near jurisdictional waters (Stream #4 ordinary high-water mark near proposed Main Tank and/or a wetland near proposed Alderpoint Pump Station), the proposed project would require a Clean Water Act (CWA) Section 404 Permit from the United States Army Corps of Engineers (USACE), a Section 401 Certification and/or Waste Discharge Requirements from the NCRWQCB, and/or an LSA Agreement from CDFW, and would need to comply with all permit conditions. Permit conditions would include measures and protocols to minimize erosion and siltation.

Additionally, because the project would involve more than one acre of ground disturbance, construction of the proposed project would 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]).

Based on the information provided above, it has been determined the proposed project would 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

According to the Humboldt County GIS system, the project is within areas of moderate and high slope instability (Humboldt County, 2023). The Humboldt County GIS system also shows a historic landslide near the Wallan Tank where water piping is to be replaced.

Numerous landslides and areas of unstable ground are shown on available geologic maps. The type and concentration of landsliding is relative to the underlying bedrock; more slides are mapped in areas underlain by Broken Formation bedrock, which does not underlie the improvement sites. Relatively few are mapped (or observed) in areas underlain by Wildcat Group sediments. The Engineering Geologic and Geotechnical Investigation Report did not document any features related to recent landsliding (tension cracks, seeps, springs, rills, or gullies) at the proposed new infrastructure sites, although unstable ground is mapped in the site vicinity. Due to the site location in a seismically active area and the potential for strong seismic ground shaking to occur at the site, there is an ongoing potential for localized co-seismic landsliding to occur along steep slopes throughout the project area (SHN, 2023c).

Neither the Humboldt County GIS system nor the Engineering Geologic and Geotechnical Investigation Report identified any areas of potential liquefaction in the project area.

Design and construction of the project would incorporate appropriate engineering practices to ensure seismic stability as required by the CBC. In addition, the proposed project shall adhere to the recommendations of the Engineering Geologic and Geotechnical Investigation Report (SHN, 2023c) relating to the design and construction of the proposed project. This requirement has been included as **Mitigation Measure GEO-1** to minimize potential risks from geologic hazards, including in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

In compliance with existing laws and regulations, with the implementation of **Mitigation Measure GEO-1,** and based on the information provided above, it has been determined the proposed project would 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 off-site 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 with Mitigation Incorporated

Expansive soils are those that undergo a change in volume when exposed to fluctuations in moisture, causing shrinking when dry and swelling when moist. Such change in volume can distort structural elements and damage structures. Typically, soils with high clay contents are most susceptible to these processes.

According to the Engineering Geologic and Geotechnical Investigation Report (SHN, 2023c), geologic mapping shows areas of landsliding (Qls on Figure 10) in the project vicinity; these occur as translational/ rotational and earthflow slides. Areas of "disrupted ground" are shown throughout the project vicinity, which are described as:

> "Irregular ground surface caused by complex landsliding processes resulting in features that are indistinguishable or too small to delineate individually at the map scale; also may include areas affected by downslope creep, expansive soils, and/or gully erosion; boundaries are usually indistinguishable." (Spittler, 1984)

Therefore, adherence to the recommendations of the Engineering Geologic and Geotechnical Investigation Report (SHN, 2023c) shall be required as **Mitigation Measure GEO-1** to minimize potential risks from expansive soils.

With the implementation of **Mitigation Measure GEO-1** and based on the information provided above, it has been determined that the proposed project would not create substantial direct or indirect risks to life or property by being located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994). Therefore, the proposed project would result in a less-than-significant impact with mitigation incorporated 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 the remains or traces of prehistoric animals and plants. Paleontological resources, which include fossil remains and geologic sites with fossil-bearing strata, are non-renewable and scarce and are a sensitive resource afforded protection under environmental legislation in California. Under California PRC §5097.5, unauthorized disturbance or removal of a fossil locality or remains on public land is a misdemeanor. State law also requires reasonable mitigation of adverse environmental impacts that result from development of public land and affect paleontological resources (PRC § 30244).

It is unlikely but possible that project construction would impact potentially significant paleontological resources. In the unlikely event that fossils or other paleontological resources are encountered during construction (i.e., bones, teeth, or unusually abundant and well-preserved invertebrates or plants), construction activities would be diverted away from the discovery within 50 feet of the find, and a professional paleontologist would be notified to document the discovery as needed, to evaluate the potential resource, and to assess the nature and importance of the find. This inadvertent discovery protocol is incorporated as **Mitigation Measure GEO-2**. Implementation of **Mitigation Measure GEO-2** would reduce the impact of construction activities on potentially unknown paleontological resources by addressing discovery of unanticipated buried resources and preserving and/or recording those resources consistent with appropriate laws and requirements.

With the implementation of **Mitigation Measure GEO-2** and based on the information provided above, it has been determined the proposed project would 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 to *Geology and Soils*, the following mitigation measures will be implemented:

Mitigation Measure GEO-1. Adherence to Engineering Geologic and Geotechnical Investigation Report Recommendations: Adherence to all project specific recommendations in the SHN Engineering Geologic and Geotechnical Investigation Report (SHN, 2023c) shall be required during design and construction of the proposed project. Project specific recommendations pertain to topics such as Site Preparation and Grading, Wet Weather Subgrade Protection, Select Engineered Fill, Excavations and Temporary Shoring, Utility Trench Backfill, Soil Corrosion Potential, Foundations, and Retaining Walls.

Mitigation Measure GEO-2. Inadvertent Discovery Protocol – Paleontological Resources: In the event that fossils or other paleontological resources are encountered during construction (i.e., bones, teeth, or unusually abundant and well-preserved invertebrates or plants), construction activities shall be diverted away from the discovery within 50 feet of the find, and a professional paleontologist shall be notified to document the discovery as needed, to evaluate the potential resource, and to assess the nature and importance of the find. Based on the scientific value or uniqueness of the find, the paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the material, if it is determined that the find cannot be avoided. The paleontologist shall make recommendations for any necessary treatment that is consistent with currently accepted scientific practices. Any fossils collected from the area shall then be deposited in an accredited and permanent scientific institution where they will be properly curated and preserved.

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: 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 longwave (thermal) radiation, and GHGs in the upper atmosphere absorb and emit this longwave radiation into space and toward the Earth. This "trapping" of the longwave radiation emitted back toward the Earth is the underlying process of the greenhouse effect. Other than water vapor, the primary GHGs contributing to global climate change include the following gases:

- Carbon dioxide (CO2), primarily a byproduct of fossil fuel combustion in stationary and mobile sources;
- Nitrous oxide (N2O), a byproduct of fuel combustion and also associated with agricultural operations such as the fertilization of crops;
- Methane (CH4), commonly created by off-gassing from agricultural practices (for example, livestock), wastewater treatment, and landfill operations;
- Chlorofluorocarbons (CFCs), which were used as refrigerants, propellants, and cleaning solvents, although their production has been mostly prohibited by international treaty;
- Hydrofluorocarbons (HFCs), which are now widely used as a substitute for chlorofluorocarbons in refrigeration and cooling; and
- Perfluorocarbons (PFCs) and sulfur hexafluoride (SF6) emissions, which are commonly created by industries such as aluminum production and semiconductor manufacturing.

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.

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 emissions 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 (Sacramento Metropolitan Air Quality Management District [SMAQMD], 2018).

The Global Warming Solutions Act (AB 32) also directed 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).

In 2018, the State had already met the AB 32 goal of reducing emissions to 1990 levels by 2020 approximately four years early (CARB, 2019b). As stated in the Executive Summary of the 2019 Edition of the California Greenhouse Gas Emissions Inventory: 2000-2017:

> "The inventory for 2017 shows that California's GHG emissions continue to decrease. In 2017, emissions from GHG emitting activities statewide were 424 million metric tons of CO2 equivalent (MMTCO2e), 5 MMTCO2e lower than 2016 levels and 7 MMTCO2e below the 2020 GHG Limit of 431 MMTCO2e." (CARB, 2019b).

GSD has not adopted quantitative thresholds for determining the significance of GHG emissions, nor has GSD adopted a qualified plan, policy, or regulation to reduce emissions that qualifies for tiering in CEQA documents (per State CEQA Guidelines Section 15183.5(a)).

The project site is located in the NCAB and is under the jurisdiction of the NCUAQMD. The NCUAQMD has also not adopted quantitative thresholds for determining the significance of GHG emissions, nor has the NCUAQMD adopted a qualified plan, policy, or regulation to reduce emissions that qualifies for tiering in CEQA documents (per State CEQA Guidelines Section 15183.5(a); NCUAQMD, 2015). In the absence of quantitative thresholds or a Climate Action Plan from GSD, Humboldt County, or NCUAQMD, thresholds and guidance adopted by other air districts in the State are used for the purposes of this analysis.

In the NCAB, the closest air district to the proposed project that has adopted GHG significance thresholds is the Mendocino County Air Quality Management District (MCAQMD). 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 SMAQMD. 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.

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 with GSD staff, existing information available to GSD, 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 improvements to the District's community water system including replacing water tanks, replacing/upgrading booster pump stations, installing new segments of distribution piping, and replacing/upgrading backup generators, instrumentation, and controls. 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, 2022), 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, 2023a), 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 would be used for construction, number of days for each construction activity, the quantity of materials that would be imported and exported, and information on the proposed backup generators. Otherwise, where project-specific information was not available, the model default values were used for estimating emissions from the project.

Table 13 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 13. Annual GHG Emissions (Unmitigated)

Project Phase	GHG Emissions (MTCO2e/yr)	Threshold of Significance (MTCO2e/yr)	Significant Impact?
Construction	171	1,100	No
Operation	57	1,100	No

Source: CAPCOA, 2022; MCAQMD, 2010; SMAQMD, 2020

As shown in Table 13, 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 impact 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 improvements to the District's community water system including replacing water tanks, replacing/upgrading booster pump stations, installing new segments of distribution piping, and replacing/upgrading backup generators, instrumentation, and controls. 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 Air Quality 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, 2021).

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 result in improved energy efficiency through the following:

- Reduced Treatment Requirements—By eliminating or reducing sources of water loss in the system, as described in the Energy section of this document, the demand on the water treatment plant would be

reduced because less treated water would be wasted through leaks and breaks. This would result in reduced energy consumption associated with operating the surface water treatment plant.

- Reduced Pumping Efforts—By eliminating or reducing sources of water loss in the system, as described above, the demand on the pumping systems would be reduced because less treated water would be wasted through leaks and breaks. This would result in reduced energy consumption associated with pumping raw and treated water.
- Energy Efficient Infrastructure—The new pump stations and pump station modifications associated with this project are expected to result in less energy consumption because they would include equipment that is more energy efficient, such as modern pumps with variable frequency drives.

These energy efficiency improvements 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 improvements to the District's community water system including replacing water tanks, replacing/upgrading booster pump stations, installing new segments of distribution piping, and replacing/upgrading backup generators, instrumentation, and controls.

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 the DTSC Envirostor database, the project site is not identified as containing hazardous materials contamination or the storage of hazardous materials (DTSC, 2023). 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. Geotracker shows approximately 14 LUST sites in the Garberville area. All are listed with a status as "Completed - Case Closed" except for one. Ed's Texaco at 822 Redwood Drive, Garberville is a LUST cleanup site (T0602300396) with a status of "Open - Verification Monitoring" as of January 6, 2012 (NCRWQCB Case # 1THU520) (SWRCB, 2023). However, no work is proposed within 500 feet of this site. There are no other known sites containing hazardous materials contamination in the project area that would have the potential to impact the project site.

The nearest schools to the project are Redway Elementary School, Redway Head Start, and Little Redwoods Preschool which are located approximately two miles northwest of the project. No existing or proposed school is located within one-quarter mile of the project.

The only public airport or public use airport within two miles of the project is Garberville Airport. The project is located approximately 1 mile northeast of Garberville Airport but is not within the boundaries of the airport land use plan (Humboldt County, 2023). No use or height limitations related to the airport apply to the project.

The project is located within the boundaries of the Garberville Fire Protection District (GFPD; Humboldt County, 2023). The GFPD station is located at 680 Locust Street, approximately 0.1 mile from the project. In addition to being served by the GFPD, the community of Garberville is within a CALFIRE State Responsibility Zone (SRA). CALFIRE's Northern Region Garberville Station is located at 324 Alderpoint Road, on one of the project parcels (APN 223-183-003 where the new Alderpoint pump station is proposed).

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 most of the project locations as "Very High" FHSZ and delineates the Wallan tank site as "High" FHSZ (CALFIRE, 2023). The District's service area includes state wildland urban interface areas where structures intermingle with undeveloped wildlands.

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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 improvements to the District's community water system including replacing water tanks, replacing/upgrading booster pump stations, installing new segments of distribution piping, and replacing/upgrading backup generators, instrumentation, and controls.

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 would 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 conditions, as they are periodically used during the existing operation of the 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 would 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 would 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 improvements to the District's community water system including replacing water tanks, replacing/upgrading booster pump stations, installing new segments of distribution piping, and replacing/upgrading backup generators, instrumentation, and controls.

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 some of the District's water storage and conveyance infrastructure but would not change the type of ongoing operations. Operation of the proposed project would 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 water system operations. 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 would 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.

Based on the information provided above, it has been determined that the proposed project would 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

The nearest schools to the project are Redway Elementary School, Redway Head Start, and Little Redwoods Preschool, which are located approximately two miles northwest of the project. No existing or proposed school is located within one-quarter mile of the project.

Based on the information provided above, it has been determined the proposed project would 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 California DTSC maintains a list of hazardous substances and contaminated sites around the State (Cortese List, Government Code Section 65962.5) as part of its Envirostor database. According to the DTSC Envirostor database, the project site is not identified as containing hazardous materials contamination or the storage of hazardous materials (DTSC, 2023). The SWRCB maintains a list of LUST sites and other cleanup sites around the State as part of its Geotracker database. Geotracker shows approximately 14 LUST sites in the Garberville area. All are listed with a status as "Completed - Case Closed" except for one. Ed's Texaco at 822 Redwood Drive, Garberville is a LUST cleanup site

(T0602300396) with a status of "Open - Verification Monitoring" as of January 6, 2012 (NCRWQCB Case # 1THU520) (SWRCB, 2023). However, the nearest proposed work is over 500 feet from this site. There are no other known sites containing hazardous materials contamination in the project area that would have the potential to impact the project site.

Based on the information provided above, it has been determined the proposed project would 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 would 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?* Less-Than-Significant Impact

The only public airport or public use airport within two miles of the project is Garberville Airport. The project is located approximately 1 mile northeast of Garberville Airport but is not within the boundaries of the airport land use plan (Humboldt County, 2023). No use or height limitations related to the airport apply to the project.

Based on the information provided above, it has been determined the proposed project would 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 would result in a less-than-significant 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 Garberville's water system. This type of project is not of the nature to substantially impact emergency response or evacuation. Development of the proposed water system improvements would not involve any new permanent encroachments within County rights-of-way (ROWs). Project construction would require temporary encroachments at a number of locations within County ROWs. Encroachment permits would be required for any work completed within County ROW. Construction of the Zone 1 distribution main connection between the Main/Hurlbutt Tank site and the downtown area (Figure 5A) would also require temporary encroachment within the California Department of Transportation (Caltrans) ROW. An encroachment permit would be required for any work completed within the Caltrans highway ROW. 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 ROW improvements.

Through compliance with Caltrans and County requirements, and for the reasons explained above, construction activities 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 most of the project locations as "Very High" FHSZ and delineates the Wallan tank site as "High" FHSZ (CALFIRE, 2023). The District's service area includes state wildland urban interface areas where structures intermingle with undeveloped wildlands. As discussed in Section XX (Wildfire), the proposed project is not of the nature to exacerbate or expose people/structures to wildland fires and would result in an overall benefit to public services including fire protection by replacing substandard water storage and distribution infrastructure with new updated infrastructure. As such, the proposed project would 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: No mitigation measures are required for the project to result in a less-than-significant impact to *Hazards and Hazardous Materials*.

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 site is located 13 miles east of the Pacific Ocean and 650 feet east of the South Fork Eel River. The Wallan Tank site is atop a steep south-southwest-facing slope approximately 1,150 feet above sea level, and the Wallan Pump Station is on a moderately steep south-southwest facing slope approximately 855 feet above sea level. The Robertson Tank site is atop a south-facing steep slope approximately 780 feet above sea level, uphill from the Arthur Road Pump Station, which is on a generally-level hillside bench approximately 615 feet above sea level. The proposed Alderpoint Road Pump Station is downslope from the Arthur Road Pump Station on a larger hillside bench, between 550 and 600 feet above sea level. The existing Hurlbutt Tank and proposed Main Tank site is on a west-facing moderately steep slope approximately 700 feet above sea level. The Tobin Well site is in downtown Garberville on a west-facing hillside bench with a gentle slope approximately 550 feet above sea level within an urban residential area.

The project site is located in the Eel River Hydrologic Unit, South Fork 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. The South Fork Eel River Watershed is listed as impaired for sediment and temperature (NCRWQCB, 2023).

The proposed project and the District's water source are located in the Garberville Town Area (1-032) Groundwater Basin. The California Department of Water Resources (DWR) has ranked the basin as a "Very Low" priority groundwater basin

because of the condition of the basin and the minimal risk of overdraft and other impacts indicating that the basin is not at risk of overdraft (DWR, 2023).

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 06023C1985F, the project site is located in an area of minimal flood hazard, (Zone X; FEMA, 2023).

A Biological and Wetland Assessment was prepared for this project (SHN, 2023b), which mapped ten wetland features and five streams within or near the study area. See Figures 7 through 9 and Tables 11 and 12 in Section IV Biological Resources for wetland and stream locations, wetland test pit (TP) data, and wetland and stream (ordinary high-water mark) delineation results.

The ten wetlands ranged in size between 176 and 2,244 square feet in open herbaceous-dominated or forested settings for a total of 6,538 square feet of wetlands mapped, of which 5,838 square feet occurs within the study area (Table 11). Of the 10 wetlands occurring within the study area, 3 are palustrine emergent (herbaceous-dominated), 6 are palustrine forested, and 1 is palustrine shrub-scrub wetland. All wetlands displayed some form of historical or on-going anthropogenic disturbance mostly related to road development, reflecting the proximity of the study area to roadsides. Four of the wetlands (Wetlands #1, #2, #5, and #6) have aboveground connectivity to a Traditional Navigable Waterway (TNW). The remaining six wetlands appear to be isolated with no aboveground connectivity to additional wetlands or other waters. Wetlands with above-ground connectivity to a TNW have a total area of 1,178 square feet.

A total of five streams were mapped within the study area and the immediate vicinity of the study area (Figures 7 through 9 and Table 11). Of the five streams, four are seasonal intermittent (Streams #1, #2, #3, and #5), and one of the streams is ephemeral (Stream #4). Of the five streams, two do not enter the study area, but flow within the immediate vicinity of the study area. These were mapped for planning and setback purposes. Streams #2 and #4 have portions of the stream within the study area for a total of 538 linear feet of stream occurring within the study area. A total of 1,543 linear feet of streams have been mapped within and immediately adjacent to the study area.

The District provides wastewater collection, treatment, and disposal services to the town of Garberville and the surrounding area. However, this project does not involve wastewater collection, treatment, or disposal.

Limited constructed stormwater facilities exist within the project sites. Several drainage inlets were mapped during the wetland delineation between the Hurlbutt/Main Tank sites and U.S. Highway 101 (Figure 9).

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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

The surface water features on the project site include ten wetland features and five streams, as described in the Hydrology and Water Quality Setting. Water quality in the South Fork Eel River watershed is influenced by stormwater runoff from a variety of land uses. The South Fork Eel River Watershed is listed as impaired for sediment and temperature (NCRWQCB, 2023).

Construction

Construction of the proposed project would include demolition, site preparation, grading, water tank and building construction, trenching, paving, architectural coating, and revegetation activities, which have 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 (Section 2.3 – Proposed Project) which would serve to avoid and minimize potential water quality impacts.

Also, because construction is anticipated to involve work in or near jurisdictional waters (Stream #4 ordinary high-water mark near proposed Main Tank and/or Wetland #3 near proposed Alderpoint Pump Station), the proposed project would require a CWA Section 404 Permit from the USACE, a Section 401 Certification and/or Waste Discharge Requirements from the NCRWQCB, and/or an LSA Agreement from CDFW, and would need to comply with all permit conditions. Permit conditions would include measures and protocols to minimize the degradation of surface water and groundwater quality.

Additionally, because the project would involve more than one acre of ground disturbance, GSD would need to obtain coverage under State Water Resources Control Board National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit). In compliance with the NPDES requirements, a Notice of Intent (NOI) would be prepared and submitted to the NCRWQCB, providing notification and intent to comply with the State of California Construction General Permit (CGP). In addition, a Construction SWPPP would be prepared for pollution prevention and control prior to initiating site construction activities. The Construction SWPPP would identify and specify the use of appropriate BMPs for control of pollutants in stormwater runoff during construction-related activities, and would be designed to address water erosion control, sediment control, offsite tracking control, wind erosion control, non-stormwater management control, and waste management and materials pollution control. A sampling and monitoring program would be included in the Construction SWPPP that meets the requirements of the NCRWQCB to ensure the BMPs are effective. A Qualified SWPPP Practitioner would oversee implementation of the SWPPP, including visual inspections, sampling and analysis, and ensuring overall compliance. Implementation of the SWPPP, as required by law, would ensure that water quality is protected during construction activities.

Adherence to the SWRCB regulatory requirements of the CGP, the BMPs included in the project description, and the permit conditions would ensure construction of the proposed project would not result in substantial degradation of surface or ground water quality.

Operation

The proposed project would alter the location of and improve the District'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 would include energy dissipators for the tank drains and overflow pipes 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 would result in a small increase in impervious surface area associated with tank removals and replacements. Three water tanks would be removed, and two water tanks would be constructed, resulting in an increase of approximately 1,125 square feet (sf) of impervious surface area. The associated increase in stormwater runoff would be negligible. The project would also decrease non-stormwater runoff because it would replace the existing Hurlbutt and Wallan Tanks, which are both currently leaking (SHN, 2023b). This would improve water quality in those locations by reducing sedimentation/siltation.

During the operation of the proposed project, maintenance, cleaning, and landscaping products may be stored and used 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. 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 would be used in adherence to warning labels and storage recommendations from the individual manufacturers.

In compliance with the SWRCB regulatory requirements of the CGP, the BMPs included in the project description, and the permit conditions, the proposed project would 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?* No Impact

The District's primary water source is surface water from the South Fork Eel River and a backup water source is groundwater from the Tobin Well. Garberville and its water sources are located in the Garberville Town Area (1-032) Groundwater Basin. The California Department of Water Resources (DWR) has ranked the basin as a "Very Low" priority groundwater basin because of the condition of the basin and the minimal risk of overdraft and other impacts indicating that the basin is not at risk of overdraft (DWR, 2023). The proposed project would reduce water losses associated with leaks and water main breaks. As such, it would not interfere with the implementation of a sustainable groundwater management plan. The proposed project is not of the nature to substantially decrease groundwater supplies or interfere with groundwater recharge.

Based on the information provided above, it has been determined the proposed project would 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 have no 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 surface water features on the project site include ten wetland features and five streams, as described in the Hydrology and Water Quality Setting. The proposed project does not propose an alteration of the course of a stream or river, although it does involve temporary disturbance in or near Stream #4 for water line construction (Figure 9). The proposed project would result in a small increase in impervious surface area associated with tank removals and replacements. Three water tanks would be removed, and two water tanks would be constructed, resulting in an increase of approximately 1,125 sf of impervious surface area. The associated increase in stormwater runoff would be negligible. The project would also decrease non-stormwater runoff because it would replace the existing Hurlbutt and Wallan Tanks, which are both currently leaking (SHN, 2023b). This would improve water quality in those locations by reducing sedimentation/siltation. Construction of the proposed project has the potential to result in erosion and discharge of sediment to nearby drainage features. However, the project description includes various best management practices (Section 2.3 – Proposed Project) which would serve to avoid and minimize potential water quality impacts.

Also, because construction is anticipated to involve work in or near jurisdictional waters (Stream #4 ordinary high-water mark near proposed Main Tank and/or Wetland #3 near proposed Alderpoint Pump Station), the proposed project would require a CWA Section 404 Permit from the USACE, a Section 401 Certification and/or Waste Discharge Requirements from the NCRWQCB, and/or an LSA Agreement from CDFW, and would need to comply with all permit conditions. Permit conditions would include measures and protocols to minimize erosion and siltation.

Additionally, because the project would involve more than one acre of ground disturbance, GSD would need to obtain coverage under State Water Resources Control Board NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit). In compliance with the NPDES requirements, a NOI would be prepared and submitted to the NCRWQCB, providing notification and intent to comply with the State of California CGP. In addition, a Construction SWPPP would be prepared for pollution prevention and control prior to initiating site construction activities. The Construction SWPPP would identify and specify the use of appropriate BMPs for control of pollutants in stormwater runoff during construction-related activities, and would be designed to address water erosion control, sediment control, offsite tracking control, wind erosion control, non-stormwater management control, and waste management and materials pollution control. A sampling and monitoring program would be included in the Construction SWPPP that meets the requirements of the NCRWQCB to ensure the BMPs are effective. A Qualified SWPPP Practitioner would oversee implementation of the SWPPP, including visual inspections, sampling and analysis, and ensuring overall compliance. Implementation of the SWPPP, as required by law, would ensure that construction of the proposed project would not result in substantial erosion or siltation on- or off-site.

Adherence to the SWRCB regulatory requirements of the CGP, the BMPs included in the project description, and the permit conditions would ensure construction of the proposed project would not result in substantial erosion or siltation on- or off-site.

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 would result in a small increase in impervious surface area associated with tank removals and replacements. Three water tanks would be removed, and two water tanks would be constructed, resulting in an increase of approximately 1,125 sf of impervious surface area. The associated increase in stormwater runoff would be negligible. The project would also decrease non-stormwater runoff because it would replace the existing Hurlbutt and Wallan Tanks, which are both currently leaking (SHN, 2023b). This would improve water quality in those locations by reducing sedimentation/siltation.

As such, the proposed project would 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 would result in a small increase in impervious surface area associated with tank removals and replacements. Three water tanks would be removed, and two water tanks would be constructed, resulting in an increase of approximately 1,125 sf of impervious surface area. The associated increase in stormwater runoff would be negligible. The project would also decrease non-stormwater runoff because it would replace the existing Hurlbutt and Wallan Tanks, which are both currently leaking (SHN, 2023b). This would improve water quality in those locations by reducing sedimentation/siltation. Limited constructed stormwater facilities exist within the project sites. Several drainage inlets were mapped during the wetland delineation between the Hurlbutt/Main Tank sites and U.S. Highway 101 (Figure 9). The project does not propose drainage alterations that would substantially affect existing stormwater facilities.

As such, the proposed project would 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 06023C1985F, the project site is located in an area of minimal flood hazard, (Zone X; FEMA, 2023). The proposed project would result in a small increase in impervious surface area associated with tank removals and replacements. Three water tanks would be removed, and two water tanks would be constructed, resulting in an increase of approximately 1,125 sf of impervious surface area. The associated increase in stormwater runoff would be negligible. Therefore, the potential for the proposed project to impede or redirect flood flows is negligible.

For the reasons explained above, it has been determined the proposed project would 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 06023C1985F, the project site is located outside of a regulated flood hazard zone (FEMA, 2023). The California Department of Conservation's Tsunami Hazard Area Map shows the project site as being located outside of a tsunami hazard zone (DOC, 2023b). There is no body of water near the project site that has the potential for the generation of a seiche. Therefore, the proposed project would not result in the release of pollutants due to project inundation.

Based on the information provided above, it has been determined the proposed project would not be located in a flood hazard, tsunami, or seiche zone, and would 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, South Fork 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. The South Fork Eel River Watershed is listed as impaired for sediment and temperature (NCRWQCB, 2023).

As discussed under the subsections above, potential water quality impacts from construction and operation of the proposed project would be less than significant due to the project design elements, compliance with existing regulatory requirements (SWRCB CGP), and compliance with the permit conditions from the USACE, North Coast RWQCB, and/or CDFW. See subsections a), c.i), and c.iii) for further information. Therefore, the proposed project would not conflict with or obstruct a water quality control plan.

Sustainable Groundwater Management Plan

The DWR has ranked the Garberville Town Area (1-032) Groundwater Basin as a "Very Low" priority groundwater basin because of the condition of the basin and the minimal risk of overdraft and other impacts indicating that the basin is not at risk of overdraft (DWR, 2023). As discussed under subsection b), the proposed project would result in a negligible (approximately 1,000 sf) increase in impervious surface area. This has little to no potential to alter existing groundwater recharge patterns. The project would not affect the implementation of a sustainable groundwater management plan as it would not change the type of ongoing operations nor increase the water service area, water withdrawals, or water entitlements. As such, the proposed project would not interfere with the implementation of a sustainable groundwater management plan.

The proposed project and GSD's water source are located in the Garberville Town Area (1-032) Groundwater Basin. The California Department of Water Resources (DWR) has ranked the basin as a "Very Low" priority groundwater basin because of the condition of the basin and the minimal risk of overdraft and other impacts indicating that the basin is not at risk of overdraft (DWR, 2023). No increase in the permitted or actual amount of diversion from the South Fork Eel River is proposed. Therefore, the proposed project would not interfere with the implementation of a sustainable groundwater management plan.

For the reasons explained above, it has been determined that the proposed project would 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 Garberville in Humboldt County, east of U.S. Highway 101. The Humboldt County General Plan (Humboldt County, 2017) serves as the basis for land use planning within this portion of Humboldt County. See Table 1 for zoning of the project parcels, which includes Residential Suburban, Agriculture Exclusive, and Residential One-Family. Table 1 also provides the general plan land use designations of the project parcels, which include Public Lands, Residential Low Density, Residential Estates, Residential Agriculture, and Public Facilities. The Main/Hurlbutt Tank and Upper Maple Lane Pump Station site is developed with rural residential uses and existing District water system infrastructure. It is surrounded by timberlands to the east, the urbanized Garberville downtown to the north, and U.S. Highway 101 to the west and south. The Wallan Tank and Wallan Pump Station site is developed with rural residential uses and existing District water system infrastructure. It is surrounded by rural residential and agricultural uses. The Arthur/Alderpoint Pump Stations sites are developed with the existing Arthur Pump Station and a CALFIRE station respectively and are surrounded by rural residential and agricultural uses, as well as forested areas. The Robertson Tank site is developed with existing District water system infrastructure and is surrounded by rural residential and agricultural uses, as well as forested areas. The Tobin Well site is developed with existing District water system infrastructure and is surrounded by single-family residential development.

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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 project is located in the unincorporated community of Garberville in Humboldt County, east of U.S. Highway 101. The project parcels are developed with rural residential uses, a CALFIRE station, and existing District water infrastructure, and are surrounded by the land uses described above in Setting. Access to the project sites is provided by existing roadways including U.S. Highway 101, Melville Road, Hillcrest Drive, Redwood Drive, Wallan Road, Alderpoint Road, Arthur Road, and Pine Lane. The project does not propose large infrastructure improvements (for example, highway, canal, etc.) that have the potential to physically divide the community of Garberville. The proposed project would improve water storage and distribution infrastructure that is an integral part of the local community.

Based on the information provided above, it has been determined that the proposed project would 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 improvements to the District's community water system including replacing water tanks, replacing/upgrading booster pump stations, installing new segments of distribution piping, and replacing/upgrading backup generators, instrumentation, and controls.

See Table 1 for zoning of the project areas, which includes Agriculture Exclusive (AE), Residential Suburban (RS), and Residential One Family (R-1). Per Humboldt County Code Section 314-58.1 (Public Uses), "Public uses as defined in this Code, shall be permitted in any zone without the necessity of first obtaining a Use Permit. However, the locations of proposed public uses shall be submitted to the Planning Commission for recommendation at least thirty (30) days prior to the acquisition of sites or rights-of-way for the public use." The project would require a General Plan Conformance Review from Humboldt County to ensure zoning/general plan consistency and the locations of proposed public uses would be submitted to the County as part of that process. As discussed under Section IV (Biological

Resources), the project is anticipated to potentially require a Special Permit from Humboldt County for work within a streamside management area and/or for removing trees greater than 12 inches diameter within a residential-zoned parcel. The project would need to comply with all permit conditions to ensure zoning and general plan consistency.

Additionally, because construction is anticipated to involve work in or near jurisdictional waters (stream ordinary high-water mark near proposed Main Tank and/or wetland near proposed Alderpoint Pump Station), the proposed project would require a CWA Section 404 Permit from the USACE, a Section 401 Certification and/or Waste Discharge Requirements from the NCRWQCB, and/or an LSA Agreement from CDFW, and would need to comply with all permit conditions.

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 (Humboldt County, 2017). 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), and Noise (Section XVIII). 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 would 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:

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

Mitigation Measure AQ-1 (Fugitive Dust Control Measures)

Mitigation Measure BIO-1 (Nesting Bird Surveys)

Mitigation Measure BIO-2 (Protect Special Status Bats)

Mitigation Measure BIO-3 (Avoidance and Minimization Measures to Protect Sensitive Natural Communities)

Mitigation Measure BIO-4 (Mitigation for Sensitive Natural Communities)

Mitigation Measure BIO-5 (Avoidance and Minimization Measures to Project Wetlands/Waters)

Mitigation Measure BIO-6 (Mitigation for Loss of Wetlands and Waters)

Mitigation Measure CR-1 (Protocols for Inadvertent Discovery of Cultural Resources)

Mitigation Measure GEO-1 (Adherence to Engineering Geologic and Geotechnical Investigation Report Recommendations)

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

Mitigation Measure NO-1 (Construction Noise Limitations)

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.

Mineral resources in the vicinity of Garberville are primarily aggregate deposits found along the Eel River (outside the project area). 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.

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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

There are no known deposits of commercially viable mineral or aggregate on the project site.

For these reasons, it has been determined that the proposed project would 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. 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

There are no known deposits of commercially viable mineral or aggregate on 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.

The Humboldt County General Plan (Humboldt County, 2017) Noise Element identifies prominent sources of noise in Garberville as being from vehicle traffic along U.S. Highway 101, the Garberville Airport, and gravel operations. In the vicinity of the project, other noise generating sources include vehicle traffic along Alderpoint Road, Wallan Road, Redwood Drive, and other local roadways, day-to-day activities at CALFIRE's Northern Region Garberville Station (324 Alderpoint Road, on one of the project parcels [APN 223-183-003] where the new Alderpoint pump station is proposed), and nearby agricultural and rural residential land uses. The only airport or airstrip within two miles of the project is Garberville Airport. The project is located approximately 1-mile northeast of Garberville Airport but is not within the boundaries of the airport land use plan (Humboldt County, 2023). No use or height limitations related to the airport apply to the project. 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 receptors to the proposed project are residences in close proximity to the project. At the Main/Hurlbutt Tank and Upper Maple Lane Pump Station site (Figure 5A), the nearest sensitive receptor is a residence located approximately 50 feet from the existing tank. At the Wallan Tank Site (Figure 5B), the nearest sensitive receptor is a residence located approximately 60 feet from the proposed tie-in to existing distribution piping. At the Arthur/Alderpoint Pump Station site (Figure 5C), the nearest sensitive receptors are two residences located approximately 50 feet from the existing Arthur Pump Station to be demolished and the proposed Alderpoint Pump Station to be constructed. At the Robertson Tank site (Figure 5D), the nearest sensitive receptor is a residence located approximately 250 feet from the existing tank. At the Wallan Pump Station site (Figure 5), the nearest sensitive receptor is a residence located approximately 200 feet from the existing booster pump station. At the Tobin Well site (Figure 5E), the nearest sensitive receptors are the surrounding residences (directly adjacent).

The nearest schools to the project are Redway Elementary School, Redway Head Start, and Little Redwoods Preschool which are located approximately two miles northwest of the project.

The Humboldt County General Plan Noise Element (Chapter 13) contains noise compatibility standards, which are found in Table 13-C (Land Use/Noise Compatibility Standards). The noise standards in Table 13-C are based on the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level (Ldn). CNEL is a 24-hour energy equivalent level derived from a variety of single-noise events, with weighting factors of 5 and 10 A-weighted Decibels (dBA) applied to the evening (7 p.m. to 10 p.m.) and nighttime (10 p.m. to 7 a.m.) periods, respectively, to allow for the greater sensitivity to noise during those hours. Ldn is the average sound level in decibels, excluding frequencies beyond the range of the human ear, during a 24-hour period with a 10 dB weighting applied to nighttime sound levels. Since CNEL and Ldn are a daily average, allowable noise levels can increase in relation to shorter periods of time. Table 13-C provides the maximum interior and exterior noise levels by land use category. For single-family residences, 60 dBA CNEL/Ldn is considered a normally acceptable exterior noise level. As

stated on page 13-6 of the Noise Element, "*A standard construction wood frame house reduces noise transmission by 15 dBA. Since interior noise levels for residences are not to exceed 45 dBA, the maximum exterior noise level for residences is 60 dBA without requiring additional insulation*" (Humboldt County, 2017).

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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 with Mitigation Incorporated

Construction

Construction of the project would temporarily increase noise in the immediate vicinity of the project's various construction sites over an approximately 19-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. 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 project would include cranes, excavators, backhoes, loaders, small skid-steer loaders, flatbed semi-trucks, dump trucks, hydraulic lifts, personnel transport vehicles, service trucks, cement trucks, compaction equipment, and paving equipment. Construction access for the Main/Hurlbutt Tank and Upper Maple Lane Pump Station site would be from Melville Road, Hillcrest Drive, the private driveway serving that property, and Redwood Drive. Construction access for the Wallan Tank site and Wallan Pump Station site would be from Wallan Road and the private driveway serving that property. Construction access for the Arthur and Alderpoint Pump Station sites would be from Alderpoint Road and Arthur Road as well as from CALFIRE's Northern Region Garberville Station at 324 Alderpoint Road. Construction access for the Robertson tank site would be from Alderpoint Road and the private driveway serving the tank. Construction access for delivering the backup generator at the Tobin Well site would be from Pine Lane.

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 (Federal Highway Administration [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.

Noise from construction activities would be transitory (occurring intermittently over the construction period), temporary (occurring over an overall timeframe of approximately 19 months), and the location of work at any given time would vary as portions of the project construction get completed. Given its transitory and temporary nature, construction activities would result in a short-term noise impact in the vicinity of the project site. To mitigate the noise impacts from short-term construction activities, **Mitigation Measure NO-1** has been required for the proposed project. **Mitigation Measure NO-1** limits construction activities to the hours between 8:00 a.m. and 5:00 p.m. Monday through Friday, and between the hours of 9:00 a.m. and 5:00 p.m. on Saturdays and Sundays. Additionally, construction activity would not be allowed to occur on holidays. With implementation of **Mitigation Measure NO-1**, impacts to nearby sensitive receptors from construction activities would be less than significant.

Operation

After construction is complete, noise levels from operation of the District's water system would be similar to pre-construction levels. The new Upper Maple Lane backup generator would replace the existing Upper Maple Lane backup generator on the same parcel. The new Alderpoint Pump Station generator would replace the one to be removed at the Arthur Pump Station nearby. All proposed backup generators would be sized to provide backup power

in the event of electric utility outages. The backup generators are only turned on 1) for emergency use during an emergency power loss, and 2) for regular weekly testing which occurs for approximately 30 minutes once per week during daylight hours. The permanent outdoor generators would be provided in sound-attenuated National Electrical Manufacturers Association (NEMA)-rated enclosures. The short duration and intermittent timing of the noise from backup generators would not result in a substantial permanent increase in ambient noise levels above current levels.

With the adoption of **Mitigation Measure NO-1** and based on the information provided above, it has been determined that the proposed project would 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 with mitigation incorporated.

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

The proposed project's construction activity has the potential to result in minor groundborne vibration and noise. The nearest land uses potentially impacted by groundborne vibration and noise are the residences located approximately 50 feet from the proposed construction. Ground vibrations from construction activities do not often reach the levels that can damage structures. Pile-driving and blasting generate the highest levels of vibration; however, neither of these activities would occur during construction of the proposed project. As discussed under subsection a), construction activity must comply with the requirements in **Mitigation Measure NO-1**, which place limitations on the days and hours of construction activity, to ensure that nearby land uses are not disturbed by early morning or nighttime construction activity. In addition to reducing construction noise levels, compliance with these requirements also minimizes the potential impacts of vibration on persons adjacent to the project site. Construction activities would occur for a short duration and during daytime hours and would not result in groundborne noise levels that are excessive.

With the implementation of **Mitigation Measure NO-1** and for the reasons discussed above, it has been determined that the proposed project would not result in the generation of excessive groundborne vibration or groundborne noise levels. Therefore, the proposed project would result in a less-than-significant impact with mitigation.

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?* Less-Than-Significant Impact

The only airport or airstrip within two miles of the project is Garberville Airport. The project is located approximately 1 mile northeast of Garberville Airport but is not within the boundaries of the airport land use plan (Humboldt County, 2023). No use or height limitations related to the airport apply to the project. Due to the distance from the project site, airports are not a source of excessive noise levels affecting the project site. As such, 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 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 *Noise*, the following mitigation measures will be implemented:

Mitigation Measure NO-1. Construction Noise Limitations: The following measures will be implemented during construction activities to reduce noise levels:

- Construction activities shall be restricted to the hours between 8:00 a.m. and 5:00 p.m. Monday through Friday, and between the hours of 9:00 a.m. and 5:00 p.m. on Saturdays and Sundays.
- Construction activity will not occur on holidays.

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: Garberville has a population of 818 people according to the 2020 Decennial Census Program estimate. Section 2.2 Existing Conditions includes a subsection describing the District's Water Demand and Required Tank Storage. Additional information on this topic is included in the Preliminary Engineering Report prepared for the proposed project (SHN, 2023a). To determine necessary water storage capacity during preliminary design, the maximum day demand for all zone service connections served by a tank was added to the estimated fire flow requirement. Because the District does not anticipate an increase in population served, population growth projections were excluded from tank sizing.

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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)?* Less-Than-Significant Impact

The project proposes improvements to the District's community water system including replacing water tanks, replacing/upgrading booster pump stations, installing new segments of distribution piping, and replacing/upgrading backup generators, instrumentation, and controls.

As discussed under Setting, because the District does not anticipate an increase in population served, population growth projections were excluded from tank sizing. 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 a less-than-significant impact on this resource category.

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

The project does not include modification or construction of housing. The proposed project would not displace people or housing or otherwise affect 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 Garberville in Humboldt County, which has the following public facilities and services.

Law Enforcement
Law enforcement services in Garberville are provided by the Humboldt County Sheriff's Department. The Garberville Sub-Station of the Humboldt County Sheriff's Department, located approximately 0.1 mile from the project at 715 Cedar Street, serves the communities of Garberville, Redway, Shelter Cove, Miranda, Phillipsville, Weott, Myers Flat, and Alderpoint.

Fire Protection
The project is located within the boundaries of the Garberville Fire Protection District (GFPD; Humboldt County, 2023). The GFPD station is located at 680 Locust Street, approximately 0.1 mile from the project. In addition to being served by the GFPD, the community of Garberville is within a CALFIRE State Responsibility Zone (SRA). CALFIRE's Northern Region Garberville Station is located at 324 Alderpoint Road, on one of the project parcels (APN 223-183-003 where the new Alderpoint pump station is proposed).

Schools
Redway Elementary School, Redway Head Start, and Little Redwoods Preschool are the nearest schools and are located approximately two miles northwest of the project in Redway. Miranda Junior High School and South Fork High School are located approximately nine miles north of the project in Miranda.

Parks
The nearest park to the project is Tooby Memorial Park, located on the opposite side of U.S. Highway 101 from the project, approximately 0.4 miles away from the Main/Hurlbutt Tank site.

Other Public Facilities
Other public facilities in Garberville include library services. The Garberville branch of the Humboldt County Library is located approximately 0.1 mile from the project at 715 Cedar Street.

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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*? Less-Than-Significant Impact

The project is located within the boundaries of the Garberville Fire Protection District (GFPD; Humboldt County, 2023). The GFPD station is located at 680 Locust Street, approximately 0.1 mile from the project. In addition to being served

by the GFPD, the community of Garberville is within a CALFIRE State Responsibility Zone (SRA). CALFIRE's Northern Region Garberville Station is located at 324 Alderpoint Road, on one of the project parcels (APN 223-183-003 where the new Alderpoint pump station is proposed).

The project would result in an overall benefit to public services including fire protection by replacing substandard water storage and distribution infrastructure with new updated infrastructure. The proposed water system improvements would put the District on more stable footing to more reliably provide customers in their service area with the water needed for fire protection. The new water storage tanks would comply with current seismic and structural codes and provide the District 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 have a less-than-significant 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*? Less-Than-Significant Impact

Law enforcement services in Garberville are provided by the Humboldt County Sheriff's Department. The Garberville Sub-Station of the Humboldt County Sheriff's Department, located approximately 0.1 mile from the project at 715 Cedar Street, serves the communities of Garberville, Redway, Shelter Cove, Miranda, Phillipsville, Weott, Myers Flat, and Alderpoint. The project proposes improvements to the District's community water system including replacing water tanks, replacing/upgrading booster pump stations, installing new segments of distribution piping, and replacing/upgrading backup generators, instrumentation, and controls. The project would not result in an increase in population or result in the need to increase staffing. The proposed project would 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 have a less-than-significant 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*? Less-Than-Significant Impact

Redway Elementary School, Redway Head Start, and Little Redwoods Preschool are the nearest schools and are located approximately two miles northwest of the project in Redway. Miranda Junior High School and South Fork High School are located approximately nine miles north of the project in Miranda. The project proposes improvements to the District's community water system including replacing water tanks, replacing/upgrading booster pump stations, installing new segments of distribution piping, and replacing/upgrading backup generators, instrumentation, and controls. The project would not result in an increase in population, result in the need to increase staffing, or 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 have a less-than-significant 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*? Less-Than-Significant Impact

The nearest park to the project is Tooby Memorial Park, located on the opposite side of U.S. Highway 101 from the project, approximately 0.4 miles away from the Main/Hurlbutt Tank site. The project proposes improvements to the

District's community water system including replacing water tanks, replacing/upgrading booster pump stations, installing new segments of distribution piping, and replacing/upgrading backup generators, instrumentation, and controls. 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 would have a less-than-significant 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?* Less-Than-Significant Impact

The project proposes improvements to the District's community water system including replacing water tanks, replacing/upgrading booster pump stations, installing new segments of distribution piping, and replacing/upgrading backup generators, instrumentation, and controls. The project would not result in an increase in population or result in the need to increase staffing. The project would not result in an increase in population and would have a limited impact on the provision of other public facilities. Therefore, the proposed project would have 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 *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: The project site is located in the unincorporated community of Garberville in Humboldt County. Parks and recreational facilities in Garberville include Tooby Memorial Park, located on the opposite side of U.S. Highway 101 from the project, approximately 0.4 miles away from the Main/Hurlbutt Tank site.

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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 improvements to the District's community water system including replacing water tanks, replacing/upgrading booster pump stations, installing new segments of distribution piping, and replacing/upgrading backup generators, instrumentation, and controls. 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 Garberville area such that substantial physical deterioration of these facilities would occur or be accelerated. Therefore, the proposed project would have no impact on this resource category.

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

The project proposes improvements to the District's community water system including replacing water tanks, replacing/ upgrading booster pump stations, installing new segments of distribution piping, and replacing/upgrading backup generators, instrumentation, and controls. 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 would 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 with 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 within the boundaries of the Garberville Sanitary District in the unincorporated community of Garberville in Humboldt County, approximately 52 miles south-southeast of Eureka and east of U.S. Highway 101 (Figure 1). The project is located in several separate areas in and around the town of Garberville:

- the Main/Hurlbutt Tank and Upper Maple Lane Pump Station site (Figures 1, 2, 5, 5A),
- the Wallan Tank and Wallan Pump Station site (Figures 1, 2, 5, 5B),
- the Arthur/Alderpoint Pump Stations site and (Figures 1, 2, 5, 5C),
- the Robertson Tank site (Figures 1, 2, 5, 5D), and
- the Tobin Well site (Figures 1, 5, 5E).

Construction access for the Main/Hurlbutt Tank and Upper Maple Lane Pump Station site would be from Melville Road (County Road Number 6B110; classification Local), Hillcrest Drive (no County Road Number or classification), Redwood Drive (County Road Number C6B105; classification Major Collector), and the private driveway serving that property. Construction access for the Wallan Tank site and Wallan Pump Station site would be from Wallan Road (County Road Number 6B166; classification Local) and the private driveway serving that property. Construction access for the Arthur and Alderpoint Pump Station sites would be from Alderpoint Road (County Road Number F6B165; classification Major Collector) and Arthur Road (County Road Number 6B161; classification Local), as well as from CALFIRE's Northern Region Garberville Station at 324 Alderpoint Road. Construction access for the Robertson tank site would be from Alderpoint Road and the private driveway serving the tank. Construction access for delivering the backup generator at the Tobin Well site would be from Pine Lane.

As with the District's existing water tanks, proposed water tanks would be protected by security fencing and locked gates.

New or modified easements would be required at the following sites:

- New Main Tank and Upper Maple Lane Pump Station—The District currently owns the parcel where the existing Hurlbutt Tank is located, therefore, the transfer of ownership and easements associated with replacing the Hurlbutt Tank with the new Main Tank would need to be coordinated between the District and the landowner.

- New Main Tank Distribution Main—With the installation of the transmission main alignment that encroaches into the Caltrans right of way, new easements and Caltrans approval would be required for the new distribution piping from the Main Tank and down to the shoulder of the U.S. Highway 101 offramp to tie-in to the existing distribution system. Replacement of the water main in areas where there is already existing infrastructure, such as in the downtown area, is not expected to require additional easements, just an encroachment permit from the County.

- New Alderpoint Pump Station and Distribution Main—New easements would be required for the new pump station at the CALFIRE site and an encroachment permit from the County for the new segment of distribution main along Alderpoint Road.

The project would not result in an increase in population or result in the need to increase staffing. The District's water system is operated by a Water-Wastewater Treatment Operator and a Chief Plant Operator.

There are currently little to no pedestrian or bicycle facilities in the community of Garberville, other than in the urbanized town center area where sidewalks are common. No specific plans are known for improvements to the roadways in the vicinity of the project. Redwood Transit System provides transit service to Garberville, with several bus stops located along Redwood Drive.

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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 U.S. Highway 101, Melville Road, Hillcrest Drive, Redwood Drive, Wallan Road, Alderpoint Road, Arthur Road, Pine Lane, and other local roadways. 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 water system improvements would not involve any new permanent encroachments within County rights-of-way (ROWs). Project construction would require temporary encroachments at a number of locations within County ROW. Encroachment permits would be required for any work completed within County ROW. Construction of the Zone 1 distribution main connection between the Main/Hurlbutt Tank site and the downtown area (Figure 5A) would also require temporary encroachment within the California Department of Transportation (Caltrans) ROW. An encroachment permit would be required for any work completed within the Caltrans highway ROW. The encroachment permit application(s) for Caltrans and Humboldt County require preparation of traffic control plans for work that would block the ROW, 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 ROW improvements. Through compliance with Caltrans and County requirements, construction activities would not result in substantial adverse effects or conflicts with the circulation system.

Operation
Transportation related to project operation would be essentially the same as the existing conditions. As with the current water system operation, the District's water operators would continue to make regular operation- and maintenance-related visits to the water system facilities. No increase in operations-related traffic is anticipated. Vehicular access to the facilities would be substantially similar. Pedestrian, bicycle, and transit access to the project site would be unaffected.

Based on the information provided above, it has been determined that the proposed project would 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 with 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 U.S. Highway 101, Melville Road, Hillcrest Drive, Redwood Drive, Wallan Road, Alderpoint Road, Arthur Road, and other local roadways. 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. Because construction of the proposed improvements would be temporary, construction activities would not be expected to result in significant impacts related to VMT.

Operation

As described under a) above, transportation related to project operation would be essentially the same as the existing conditions. As with the current water system operation, the District's water operators would continue to make regular operation- and maintenance-related visits to the water system facilities. No increase in operations-related traffic is anticipated.

Based on the information provided above, it has been determined that the proposed project would not conflict with 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 does not include any element that would change roadway geometrics that could increase hazards related to design features. The project would not change the existing land uses of the site in a way that would result in use of vehicles or equipment, such as farm equipment or tractors, that would be incompatible with existing land uses in the surrounding area.

Based on the information provided 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 would be accessed by way of U.S. Highway 101, Melville Road, Hillcrest Drive, Redwood Drive, Wallan Road, Alderpoint Road, Arthur Road, and other local roadways 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 ROW (along Melville Road, Wallan Road, Alderpoint Road, Arthur Road, etc.) and Caltrans ROW (along U.S. Highway 101), the proposed project would 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 ROW, 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.

Based on the information provided 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**		

Archaeological and other resources can be damaged through uncontrolled public disclosure. Archeological site locations and culturally sensitive information is considered confidential and public access to such information is restricted by State and federal law, therefore this information has been redacted for use in the Mitigated Negative Declaration (MND). Professionally qualified individuals, as determined by the California Office of Historic Preservation, may contact the lead agency in order to inquire about its availability.

Information regarding the location, character, or ownership of a historic resource is exempt from the Freedom of Information Act pursuant to 16 U.S.C. 470w-3 (National Historic Preservation Act) and 16 U.S.C. § 470hh (Archaeological Resources Protection Act) and California State Government Code, Section 6254.10.

Setting: CEQA requires lead agencies to determine if a proposed project would have a significant effect on tribal cultural resources. The CEQA Guidelines define tribal cultural resources as: 1) a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American Tribe that is listed or eligible for listing on the California Register of Historical Resources, or on a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or 2) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant according to the historical register criteria in Public Resources Code Section 5024.1(c), and considering the significance of the resource to a California Native American tribe.

A Cultural Resources Investigation was completed for the proposed project by William Rich and Associates (WRA). The purpose of this cultural resources investigation was to document the presence of historical and precontact era sites and other cultural resources, that according to Section 15064.5 of CEQA and Section 106 of the National Historic Preservation Act would qualify as either an historic property or an historical resource and therefore be eligible for listing to the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR). The methods used to complete this investigation included a record search of existing survey reports and resource records at the Northwest Information Center; 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 and adjacent terrain (WRA, 2023). The Cultural Resources Investigation found that tribal cultural resources (PRC 21074) do not appear to be present.

The District requested a list of regional tribes from the Native American Heritage Commission (NAHC). Under Assembly Bill (AB) 52, the District sent notification letters to local Native American tribes on July 25, 2023 (Bear River Band of the Rohnerville Rancheria, Round Valley Reservation/Covelo Indian Community, and Wailaki Tribe). No responses were received.

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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 with Mitigation Incorporated

As discussed above under Tribal Cultural Resources Setting, the Cultural Resources Investigation (WRA, 2023) found that tribal cultural resources (PRC 21074) do not appear to be present.

The District requested a list of regional tribes from the NAHC. Under Assembly Bill (AB) 52, the District sent notification letters to local Native American tribes on July 25, 2023 (Bear River Band of the Rohnerville Rancheria, Round Valley Reservation/Covelo Indian Community, and Wailaki Tribe). No 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, Protocols for Inadvertent Discovery of Cultural Resources have been included as **Mitigation Measure CR-1** for the proposed project (see Section V – Cultural Resources).

With the implementation of **Mitigation Measure CR-1**, it has been determined that the proposed project would 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 with Mitigation Incorporated

As discussed above under Tribal Cultural Resources Setting, the Cultural Resources Investigation (WRA, 2023) found that tribal cultural resources (PRC 21074) do not appear to be present.

The District requested a list of regional tribes from the NAHC. Under Assembly Bill (AB) 52, the District sent notification letters to local Native American tribes on July 25, 2023 (Bear River Band of the Rohnerville Rancheria, Round Valley Reservation/Covelo Indian Community, and Wailaki Tribe). No 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, Protocols for Inadvertent Discovery of Cultural Resources have been included as **Mitigation Measure CR-1** for the proposed project (see Section V – Cultural Resources).

With the implementation of **Mitigation Measure CR-1**, it has been determined that the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource that is 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:

Mitigation Measure CR-1 (Protocols for Inadvertent Discovery of Cultural Resources) – See Cultural Resources (Section V)

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 is located within the boundaries of the Garberville Sanitary District in the unincorporated community of Garberville. The project proposes improvements to the District's community water system including replacing water tanks, replacing/upgrading booster pump stations, installing new segments of distribution piping, and replacing/upgrading backup generators, instrumentation, and controls.

Electricity
Electricity in Garberville is provided through the Redwood Coast Energy Authority (RCEA) Community Choice Energy (CCE) program. The electricity is distributed and delivered over the existing power lines by PG&E (RCEA, 2023a). The water treatment plant has a permanent backup generator, which has the capacity to provide full electrical backup of the treatment plant during utility outages. The raw water pump station also has a permanently installed backup generator. No other pump stations have a stationary backup generator. The District has a single trailer-mounted generator that the operations staff moves from location to location to back up the other pump stations in the system during power outages.

Wastewater
The project does not include any wastewater facilities.

Water
The project site includes existing water storage and distribution infrastructure, including existing water storage tanks, booster pump stations, and appurtenances as well as water main piping.

Stormwater
Limited constructed stormwater facilities exist within the project sites. Several drainage inlets were mapped during the wetland delineation between the Hurlbutt/Main Tank sites and U.S. Highway 101 (Figure 9). The project does not propose drainage alterations that would substantially affect existing 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 Transfer Station in Redway, 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 with GSD staff, existing information available to GSD, 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 with Mitigation Incorporated

The project proposes improvements to the District's community water system including replacing water tanks, replacing/upgrading booster pump stations, installing new segments of distribution piping, and replacing/upgrading backup generators, instrumentation, and controls. 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), and Noise (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 update and improve the District'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 described in Section 2.3 Proposed Project and the subsection regarding Water Efficiency, this project would replace the existing Hurlbutt/Main Tank and the existing Wallan Tank. Both of these existing tanks are significantly leaking, which currently results in water losses in the distribution system and additional diversions of water from the South Fork of the Eel River. By replacing these tanks with new tanks, the water losses associated with leaking tanks would be eliminated from the system and would leave more water in the river. Also, by replacing aged distribution piping, water losses associated with leaks and water main breaks would be significantly reduced in areas where new distribution piping is installed and would eliminate the additional diversion of water from the river associated with these leaks. By eliminating or reducing sources of water loss in the water storage tanks and distribution piping, the demand for raw water from the river would be reduced since less water would be wasted through leaks and breaks in the system. The primary upper constraint to the District's water system capacity are the limitations associated with the water diversion permit from the State Water Resources Control Board for appropriation of water from the South Fork Eel River, which the project would not change. As such, the project would not affect the amount of water supply available to the District. 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?* No Impact

No wastewater facilities are existing or proposed at the project site. As such, it has been determined that the proposed project would 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 no 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. Waste generated from construction activities may include substandard soil/surface materials from grading, materials and spoils from demolition (such as fencing, building materials, etc.), and excess construction materials. 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 Transfer Station in Redway, 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 would 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 pump stations and incidental trash from staff. Proposed solid waste generation rates are assumed to be consistent with the existing solid waste generation rates. A less-than-significant operational impact would occur.

For the reasons explained above, it has been determined that the proposed project would 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

The California Integrated Waste Management Act of 1989 (Public Resources Code Division 30), enacted through Assembly Bill (AB) 939 and modified by subsequent legislation, required all California cities and counties to implement programs to divert waste from landfills (Public Resources Code Section 41780). Compliance with AB 939 is determined by the California Department of Resources, Recycling, and Recovery (CalRecycle). State law (SB 1018) mandates recycling for all businesses that generate four or more cubic yards of solid waste per week, which does not apply to the project.

The construction and operational activities from the proposed project would be required to comply with all federal, State, and local statutes related to solid waste, including AB 939. This would include compliance with recycling, hazardous waste, and composting programs in the County to comply with AB 939. Solid waste from the District's operational activities is delivered by District staff to the Recology Redway Transfer Station.

Based on the information provided above, it has been determined that the proposed project would comply with federal, state, and local management and reduction statutes and regulations related to 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 significant impact:

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

Mitigation Measure AQ-1 (Fugitive Dust Control Measures)

Mitigation Measure BIO-1 (Nesting Bird Surveys)

Mitigation Measure BIO-2 (Protect Special Status Bats)

Mitigation Measure BIO-3 (Avoidance and Minimization Measures to Protect Sensitive Natural Communities)

Mitigation Measure BIO-4 (Mitigation for Sensitive Natural Communities)

Mitigation Measure BIO-5 (Avoidance and Minimization Measures to Project Wetlands/Waters)

Mitigation Measure BIO-6 (Mitigation for Loss of Wetlands and Waters)

Mitigation Measure CR-1 (Protocols for Inadvertent Discovery of Cultural Resources)

Mitigation Measure GEO-1 (Adherence to Engineering Geologic and Geotechnical Investigation Report Recommendations)

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

Mitigation Measure NO-1 (Construction Noise Limitations)

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 Garberville, east of the South Fork Eel River and U.S. Highway 101. The project parcels are zoned Agriculture Exclusive with Special Building Site combining zone (AE-B-6) and Residential Suburban with Special Building Site combining zone (RS-B-5(5)). Land use in the project vicinity is characteristic of agricultural and rural residential areas, as well as forested areas and the urbanized Garberville town area. A CALFIRE facility is located on the parcel where the new Alderpoint pump station is proposed. The Wallan Tank site is atop a steep south-southwest-facing slope approximately 1,150 feet above sea level, and the Wallan Pump Station is on a moderately steep south-southwest-facing slope approximately 855 feet above sea level. The Robertson Tank site is atop a south-facing steep slope approximately 780 feet above sea level, uphill from the Arthur Road Pump Station, which is on a generally level hillside bench approximately 615 feet above sea level. The CALFIRE station is downslope from the Arthur Road Pump Station on a larger hillside bench between 550 and 600 feet above sea level. The Wallan and Robertson Tank sites and the CALFIRE station are located within a rural residential area northeast of the town of Garberville. The existing Hurlbutt Tank and proposed Main Tank site are on a west-facing moderately steep slope approximately 700 feet above sea level. This site includes a residence and several associated structures south of the town of Garberville. Downtown Garberville is on a west-facing hillside bench with a gentle slope approximately 550 feet above sea level within an urban residential area.

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 48 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 Garberville range from an average low of 39 degrees Fahrenheit (°F) in December to an average high of 89°F in July/August; extremes in temperatures are relatively uncommon due to the regional maritime influence.

The project is located within the boundaries of the Garberville Fire Protection District (GFPD; Humboldt County, 2023). The GFPD station is located at 680 Locust Street, approximately 0.1 mile from the project. In addition to being served by the GFPD, the community of Garberville is within a CALFIRE State Responsibility Zone (SRA). CALFIRE's Northern Region Garberville Station is located at 324 Alderpoint Road, on one of the project parcels (APN 223-183-003 where the new Alderpoint pump station is proposed).

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 most of the project locations as "Very High" FHSZ and delineates the Wallan tank site as "High" FHSZ (CALFIRE, 2023). The District's service area includes state wildland urban interface areas where structures intermingle with undeveloped wildlands.

Both of the existing water tanks in operation (Hurlbutt/Main Tank and Wallan Tank) are leaking, at the end of their useful life, and lack sufficient storage capacity for maximum daily consumption and fire suppression; they also do not meet current

seismic design standards. The existing Wallan Tank is vulnerable to wildfires because it is constructed of redwood and is currently operated at reduced capacity to decrease water loss from holes in the side of the tank. The Wallan Tank is within the state wildland interface area. Both the existing Hurlbutt and Robertson Tanks are below-ground concrete tanks that are vulnerable to wildfire because their roof structures consist of old dry redwood. The Hurlbutt Tank site is on the edge of the developed portion of town and is immediately adjacent to hundreds of acres of privately-owned open grasslands and old timber lands. The Wallan Pump Station is constructed of partial wood walls, wood siding, and wood roofing structures. It is surrounded by manzanita, brush, and larger trees that are on private property, and the District is not able remove them and maintain a 100-foot defensible space around the pump station, as is recommended by California Public Resources Code 4291. The Arthur Road Pump Station consists of completely wood walls, wood siding, and wood roof structures that are overhung by large fir trees that are on private property. The District is not able to maintain a 100-foot defensible space around the pump station. Overall, the District does not have sufficient water storage to meet the drinking water and fire protection demands of the District (SHN, 2023a).

Discussion: Based on a field review with GSD staff, existing information available to GSD, 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

The project proposes improvement of the community of Garberville's water system. The project would be designed to meet emergency access standards and accommodate the onsite maneuvering of emergency vehicles as required. This type of project is not of the nature to substantially impact emergency response or evacuation. Development of the proposed water system improvements would not involve any new permanent encroachments within County rights-of-way (ROWs). Project construction would require temporary encroachments at a number of locations within County ROW. Encroachment permits would be required for any work completed within County ROW. Construction of the Zone 1 distribution main connection between the Main/Hurlbutt Tank site and the downtown area (Figure 5A) would also require temporary encroachment within the California Department of Transportation (Caltrans) ROW. An encroachment permit would be required for any work completed within the Caltrans highway ROW. The encroachment permit application(s) for Caltrans and Humboldt County require preparation of traffic control plans for work that would block the ROW, 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 ROW improvements.

For the reasons explained above, it has been determined that the proposed project would 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

Slopes, prevailing winds, and climate are described above in Setting. The project does not include habitable structures, and there would be no project occupants. Occupation of the site would be short-term for operation and maintenance purposes. Further, construction and operation of the project would not exacerbate wildfire risks. The project would improve the community of Garberville's fire protection and response capabilities by replacing substandard water storage infrastructure with new updated infrastructure. The project would solve multiple problems in the District's water system. Two new water storage tanks would be constructed in place of three smaller tanks, which have reached the end of their useful life and are leaking. The project would both remove these leaks from the system, leaving more river water in the river during low flow events, and would more than double the system's existing storage capacity of 400,000 gallons to a new overall storage capacity of approximately 827,000 gallons. This would provide the District with adequate storage for maximum day demand and would also substantially increase fire water storage. The leaking redwood Wallan Tank would be replaced with a 77,000-gallon, bolted steel tank. The leaking 180,000-gallon concrete Hurlbutt Tank would be replaced with a new, 550,000-gallon, pre-stressed concrete Main Tank at a new location on the adjacent property. The construction materials for the new tanks would be substantially more fire-resistant than their predecessors.

All three of the District's distribution system booster pump stations would be upgraded as part of this project.

Permanent backup generators would be installed at the Upper Maple Lane and Alderpoint Pump Stations, and the Tobin Well. Wallan Pump Station would have an electrical connection for a mobile generator. These would substantially increase the reliability of the water system during electric utility power outages.

The proposed water system improvements would put the District on more stable footing to more reliably provide customers in their service area with the water needed for fire protection.

Also, as described in Section 2.3 Proposed Project, the project includes the following adaptive measures in response to climate change vulnerabilities, including wildfire:

- All new tanks for the project would be constructed of steel and concrete with no wood materials.
- The new pump stations would be constructed of fire-resistant materials.
- As part of the construction project, as much clearing and grubbing would be completed around any new pump station structures.
- The increased storage capacity provided by the new tanks would improve firefighting capacity and also improve availability of water for the community during times of drought.
- The project would replace segments of the distribution system with new pipe that would be in better condition than the existing pipe; this would reduce the amount of water that is lost to leaks in the distribution system and generally conserve water, which is particularly important during times of drought.

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

Approximately 500 feet of new gravel access road would be constructed to provide vehicle access to the new Main Tank. The project does not propose any fuel breaks or emergency water sources. As discussed in Section 2.3 – Proposed Project, installation of utility infrastructure (for example, electrical service, water main, telecommunications etc.) is proposed to serve the new water tanks and booster pump stations.

The infrastructure improvements proposed by the project would result in physical impacts to the project site, which have been previously analyzed under the appropriate resource sections of this document. The project has been designed and mitigated to reduce construction and operational impacts to less than significant. Mitigation was required for the proposed project as discussed in the following resource sections of this document:

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

No additional mitigation measures beyond those already identified would be required for the proposed project.

Therefore, the proposed project would 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 category of environmental effect.

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 with Mitigation Incorporated

Slope characteristics of the project area are described above in Setting. The project site is situated between approximately 550- and 1,160- foot elevation, with the highest elevations represented at the Wallan Tank site and the lowest elevations represented at the Tobin Well site. According to FIRM Panel 06023C1985F, the project site is located in an area of minimal flood hazard (Zone X; FEMA, 2023).

As discussed in Section X – Hydrology and Water Quality, the proposed project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. The proposed project would result in a small (1,125 sf) increase in impervious surface area with the removal of the 54-foot diameter Hurlbutt Tank, the 18-foot diameter Wallan Tank, and the 33-foot diameter Robertson Tank, and the addition of the 72-foot diameter Main Tank and the 24-foot diameter Wallan Tank.

This increase in impervious surface area has minimal potential to increase the rate or amount of surface runoff. Also, the existing Hurlbutt and Wallan Tanks are significantly leaking, which results in existing surface water runoff. By replacing these tanks with new tanks, the water losses and surface water runoff associated with leaking tanks would be eliminated.

According to the Humboldt County Geographic Information System (GIS) system, the project is within areas of moderate and high slope instability. The Humboldt County GIS system shows no historic landslides in or directly adjacent to the project areas with the exception of a portion of the proposed replacement water line that would tie in the new Wallan tank to the existing distribution piping (Humboldt County, 2023). As discussed in Section VII – Geology and Soils, subsection c), numerous landslides and areas of unstable ground are shown on available geologic maps. The type and concentration of landsliding is relative to the underlying bedrock; more slides are mapped in areas underlain by Broken Formation bedrock, which does not underlie the improvement sites. Relatively few are mapped (or observed) in areas underlain by Wildcat Group sediments. The Engineering Geologic and Geotechnical Investigation Report did not document any features related to recent landsliding (tension cracks, seeps, springs, rills, or gullies) at the proposed new infrastructure sites, although unstable ground is mapped in the site vicinity. Due to the site location in a seismically active area and the potential for strong seismic ground shaking to occur at the site, there is an ongoing potential for localized co-seismic landsliding to occur along steep slopes throughout the project area (SHN, 2023c). Design and construction of the project would incorporate appropriate engineering practices to ensure seismic stability as required by the CBC. In addition, the proposed project shall adhere to the recommendations of the Engineering Geologic and Geotechnical Investigation Report (SHN, 2023c) relating to the design and construction of the proposed project. This requirement has been included as **Mitigation Measure GEO-1** to minimize potential risks from geologic hazards, including in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

Based on the information provided above, it has been determined that the proposed project would 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: The following mitigation measures have been required in other sections of this document, so that when implemented, the proposed project would have a less significant impact to *Wildfire*:

Mitigation Measure GEO-1 (Adherence to Engineering Geologic and Geotechnical Investigation Report Recommendations)

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: The project information provided for each of the topics above has been reviewed for all actions associated with the proposed project during both temporary construction and long-term operation. Based on the description of the proposed project and its location, the project would not result in any significant impacts with the incorporated project design elements, mitigation measures, as well as compliance with the standards and requirements of other regulating resource agencies. Based on the analysis undertaken as part of this Initial Study, 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

All impacts to the environment, including impacts to habitat for fish and wildlife species, fish and wildlife populations, plant and animal communities, rare and endangered plants and animal species, and historical and prehistorical resources were evaluated as part of the analysis in this document. Where impacts were determined to be potentially significant, mitigation measures have been imposed to reduce those impacts to less-than-significant levels. In other instances, the project design and compliance with existing laws and regulations would reduce impacts of the project to less-than-significant levels. Therefore, the proposed project as designed, mitigated, and in compliance with existing regulatory requirements, would not substantially degrade the quality of the environment and impacts would be less than significant with mitigation incorporated.

Mitigation:

All Mitigation Measures discussed is this document shall apply.

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

As discussed throughout this document, implementation of the proposed project has the potential to result in impacts to the environment that are individually limited, but are not cumulatively considerable, including impacts to Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, and Noise. In most instances where the project has the potential to result in individually limited significant impacts to the environment (including

the resources listed above), mitigation measures have been imposed to reduce the potential effects to less-than-significant levels. In other instances, the project design and compliance with existing laws and regulations would reduce impacts of the project to less-than-significant levels.

Therefore, the proposed project as designed, mitigated, and in compliance with existing regulatory requirements, would not have impacts that are individually limited, but cumulatively considerable. Therefore, impacts would be less than significant with mitigation incorporated.

Mitigation:

All Mitigation Measures discussed is this document shall apply.

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

The proposed project's potential to result in environmental effects that could adversely affect human beings, either directly or indirectly, has been discussed throughout this document. In instances where the proposed project has the potential to result in direct or indirect adverse effects to human beings, including impacts to Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, and Noise, mitigation measures have been applied to reduce the impact to below a level of significance. With required implementation of mitigation measures identified in this document, construction and operation of the proposed project would not involve any activities that would result in environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly. Therefore, impacts would be Less Than Significant with Mitigation Incorporated.

Mitigation:

All Mitigation Measures discussed is this document shall apply.

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:

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

Mitigation Measure AQ-1 (Fugitive Dust Control Measures)

Mitigation Measure BIO-1 (Nesting Bird Surveys)

Mitigation Measure BIO-2 (Protect Special Status Bats)

Mitigation Measure BIO-3 (Avoidance and Minimization Measures to Protect Sensitive Natural Communities)

Mitigation Measure BIO-4 (Mitigation for Sensitive Natural Communities)

Mitigation Measure BIO-5 (Avoidance and Minimization Measures to Project Wetlands/Waters)

Mitigation Measure BIO-6 (Mitigation for Loss of Wetlands and Waters)

Mitigation Measure CR-1 (Protocols for Inadvertent Discovery of Cultural Resources)

Mitigation Measure GEO-1 (Adherence to Engineering Geologic and Geotechnical Investigation Report Recommendations)

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

Mitigation Measure NO-1 (Construction Noise Limitations)

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The following documents were used in preparation of this Initial Study. The reference documents are available from Garberville Sanitary District upon request. Please contact the District's General Manager by e-mail at remerson@garbervillesd.org.

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