Phillipsville Community Services District Water System Improvements

Initial Study / Mitigated Negative Declaration

Prepared in Cooperation with:
Phillipsville Community Services District
2739 Highway 24 (physical)
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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
AIRFA	American Indian Religious Freedom Act
APE	Area of Potential Effects
BACT	Best Available Control Technology
BCF	billion cubic feet per year
BOF	California Board of Forestry and Fire Protection
BMP	Best Management Practices
CAL FIRE	California Department of Forestry and Fire Protection
Cal OES	California Governor's Office of Emergency Services
Cal/OSHA	California Division of Occupational Safety and Health
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CDPR	California Department of Parks and Recreation
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CHL	California Historical Landmarks
CHRIS	California Historical Resources Information System
CIWMB	California Integrated Waste Management Board
CMU	Concrete Masonry Unit
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
DTSC	California Department of Toxic Substances Control
DDW	Department of Drinking Water
EIR	Environmental Impact Report
EO	Executive Order
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FMMP	Farmland Mapping and Monitoring Program
GHG	Greenhouse Gas
GPM	gallons per minute

GWP	Global Warming Potential
GWUDI	Groundwater Under Direct Influence of Surface Water
HDPE	High Density Polyethylene
HTA	Humboldt Transit Authority
IPCC	Intergovernmental Panel on Climate Change
ISMND	Initial Study/Mitigated Negative Declaration
LRA	Local Responsibility Area
MBTA	Migratory Bird Treaty Act
MDD	Maximum Daily Demand
MLD	Most Likely Descendant
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NCAB	North Coast Air Board
NCRWCB	North Coast Regional Water Quality Control Board
NCUAQMD	North Coast Unified Air Quality Management District
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NSR	New Source Review
NWIC	Northwest Information Center
OHP	Office of Historic Preservation
OSHA	Occupational Safety and Health Administration
PCA	Possible Contaminating Activities
PCSD	Phillipsville Community Services District
PG&E	Pacific Gas & Electric
PRC	Public Resources Code
PRV	Pressure Reducing Valve
PSD	Prevention of Significant Deterioration
PSI	pounds per square inch
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SMARA	Surface Mining and Reclamation Act
SR	State Route
SRA	State Responsibility Area
SSC	Species of Special Concern
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	California State Water Resources Control Board
TCR	Tribal Cultural Resource
TPZ	Timber Production Zone
UBC	Uniform Building Code
USGS	United States Geological Survey
UPS	uninterrupted power source
USACE	United States Army Corps of Engineers
USC	United States Code
USCB	United States Census Bureau

USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VHFHZ	Very High Fire Hazard Severity Zone
VMT	Vehicle Miles Traveled
WTP	Water Treatment Plant

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INITIAL STUDY INFORMATION SHEET

1.	Project title:	Phillipsville Community Services District Water System Improvements
2.	Lead agency name and address:	Phillipsville Community Services District 2739 State Route 254 (physical) PO Box 24 (mailing) Phillipsville, CA 95559
3.	Contact person and phone number:	Bonnie Mulanney, General Manager (707) 932-0800
4.	Project location:	The project site is located in the unincorporated community of Phillipsville, Humboldt County.
5.	General plan designation:	Agricultural Exclusive (AE); Public Facility (PF); Residential Agriculture 5-20 Acres (RA5-20); Timberland (T)
6.	Zoning:	Agriculture Exclusive (AE); Agriculture General (5 acre minimum) (AG-B-5(5)); Flood Plain Qualified Combining (FP-Q); Timber Production Zone (TPZ); Unclassified (U)

1.0 INTRODUCTION

This Initial Study addresses proposed improvements to an existing water system by the project applicant, Phillipsville Community Services District (PCSD), on property within the unincorporated Phillipsville area in Humboldt County (County) and whether it may cause significant effects on the environment. The Initial Study has been prepared to satisfy the requirements of the California Environmental Quality Act (CEQA; Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). CEQA requires that all State and local government agencies consider the environmental consequences of projects over which they have discretionary authority before they approve or implement those projects.

The Initial Study is a public document used by the decision-making Lead Agency to determine whether a project may have a significant effect on the environment. In the case of the proposed project, the PCSD is the Lead Agency and will use the Initial Study to determine whether the proposed project has a significant effect on the environment. The State Water Resources Control Board (SWRCB) is identified as a Responsible Agency under CEQA for issuance of a Water Supply Permit and for providing funding in support of project implementation.

This Initial Study relies on CEQA Guidelines Sections 15064 and 15064.4 in its determination of the significance of the environmental impacts. Per Section 15064, the finding as to whether a project may have one or more significant impacts shall be based on substantial evidence in the record, and that controversy alone, without substantial evidence of a significant impact, does not trigger the need for an Environmental Impact Report (EIR).

2.0 PROJECT BACKGROUND

The PCSD was formed from the Phillipsville Mutual Water Association in 2005. The PCSD is an independent special district that is governed by five Board of Director positions, all elected residents of Phillipsville. The PCSD's operations are regulated by the SWRCB Division of Drinking Water (DDW). The PCSD serves approximately 140 residents through 72 service connections. The PCSD has two water sources – a spring and a well – and the service area is divided into three pressure zones: upper, middle, and lower. The 12 customers in the upper zone and five customers in the middle zone are served by the spring source. The remaining 55 connections in the lower zone are supplied by the well source.

The original two water sources were the spring and an agricultural well. A 2009 improvements project upgraded the spring treatment and system wide storage and distribution infrastructure. In 2017, the original irrigation well was replaced with a new 140-foot deep well with a 29-foot sanitary seal and a 60-gpm well pump. The well water treatment plant (WTP) houses the flow meter and chlorine analyzer. Chlorine equipment is stored in a shed next to the well WTP. The spring, spring water treatment plant, and upper zone storage tanks are on PCSD property. The lower zone tank, pipelines, and well are installed on public easements. The 3,000-gallon tank in the middle zone is located on private property. As of 2020, degradation to the system due to improper construction as well as the presence of natural hazards require immediate upgrade/improvement to the existing system as outlined below.

3.0 PROJECT SETTING

3.1 PROJECT LOCATION

The project site is in the Phillipsville Community Services District (PCSD) in unincorporated Humboldt County. Phillipsville is also a Census Designated Place with a population of 140 as of the 2010 US Census. Project improvements would take place in many locations throughout the district and would not be centralized at a single address. The proposed project would be located in portions of APNs 214-131-016-000, 214-280-001-000, 214-280-006-000, 214-280-008-000, 214-280-016-000, 214-201-037-000, 214-201-025-000, 214-201-033-000, 214-201-023-000, 214-201-022-000, 214-201-042-000, 214-201-024-000, 214-201-031-000, 214-201-014-000, 214-201-040-000, 214-201-039-000, 214-116-006-000, 214-116-008-000, 214-115-013-000, and 214-201-041-000. The project site is located in Sections 12 and 13, Township 3 South, Range 3 East, and Sections 7 and 18, Township 3 South, Range 4 East of the U.S. Geological Survey (USGS) 7.5-minute Miranda quadrangle map. Refer to **Figure 1** for a vicinity graphic of the project site and **Figure 2** for an aerial map of the project site depicting existing infrastructure/proposed improvements. (Note: all figures are located in **Appendix A** for ease of reference).

3.2 ENVIRONMENTAL SETTING

The project site is located in rural, unincorporated Humboldt County and has a diverse topographical profile. The topography of the project roughly divided into two zones: a relatively flat plain adjacent to the South Fork Eel River and west of State Route (SR) 254, and steeply sloping hillsides east of SR 254. Much of the hillsides are densely forested, with redwoods being common in the area.

Most of the proposed project components would be located in Zone X, an area of minimal flood hazard, outside the 100-year flood zone mapped by the Federal Emergency Management Agency (FEMA). However, the well house is located within a 100-year floodplain. The project site is not in an Alquist-Priolo Fault Zone. Refer to **Figure 3** for a site plan of the proposed project.

The General Plan land use designations for the project area are: Agricultural Exclusive (AE); Public Facility (PF); Residential Agriculture 5-20 Acres (RA5-20); and Timberland (T). The zoning codes for properties within the project area are: Agriculture Exclusive (AE); Agriculture General (5 acre minimum) (AG-B-5(5)); Flood Plain Qualified Combining (FP-Q); Timber Production Zone (TPZ); and Unclassified (U). Land uses including and surrounding the project site are in agricultural, residential agricultural, and timber use, with state park land in the vicinity as well.

4.0 PROJECT DESCRIPTION

The project applicant is proposing to improve some of the current water distribution infrastructure that supplies customers served by the PCSD. The project would remedy existing water quality issues from a spring source that serves some customers of the district and provide for necessary system redundancy in case of emergency. The project would also include the installation of new storage tanks and distribution infrastructure to reduce inefficiencies and potentially unsafe conditions due to potential leaks, landslides, and/or contamination of water from the spring source. Most residents in the district are served by an existing well, and the project would include digging a second well to ensure redundancy and a consistent water supply. Further, the project would include a booster pump that

would allow residents served by the spring to also have access to a secondary water source (i.e., the well). The connection of the booster pump and well source to the remaining residents currently served by the spring would also enable the construction of fire hydrants to protect homes, wildlands, and infrastructure on the higher terrain of the district, which is also part of the proposed project. A water supply suitable for fire suppression does not currently exist in the higher-elevation portions of the district. An overview of the proposed improvements is provided in **Figure 3**. Phillipsville's population density has not changed since the 2009 project. The project is not designed for future growth of the district.

Overall System Description

The PCSD is comprised of three distinct pressure zones: the upper, middle, and lower zones. The upper and middle zones are served by the spring source while the lower zone is served by the well source. Twelve service connections exist in the upper zone and five in the middle zone. The spring source system includes the spring, the spring WTP, three 5,000-gallon storage tanks for the upper zone, and one 3,000-gallon storage tank for the middle zone. The upper and middle zone customers are fed by gravity from the storage tanks. The lower zone system includes the well and the lower zone tank. 55 connections are served in the lower zone. The well pumps to the 140,000-gallon tank, which serves the lower zone by gravity.

The following sections describe the facilities and proposed improvements in detail.

4.1 Improve Existing Spring

The spring is located uphill from the spring WTP at an elevation of approximately 900-feet above sea level. The existing spring source collection system would be rebuilt. The spring collection system is a perforated 6-inch C900 PVC collection pipe buried in rock installed below a depressed portion of the hillside. The spring water is collected by the perforated pipe and transported to the WTP by above grade 2 inch piping that runs along the forest floor. After the 2009 Improvements Project, a second 6-inch collection pipe was added above the original 6-inch collection pipe to improve the water collection from the spring. The two C900 PVC collection pipes join at an overflow tee and then transition down to 2-inch-high density polyethylene (HDPE) pipe. A tank is located along the 2-inch pipeline between the spring and the spring WTP. The tank was installed to settle out small rocks and gravels entrained into the spring source water by the spring collection area materials. The tank bypasses spring flows when the hydraulic grade line reaches the tank overflow elevation.

The spring source is located up a steep incline from the spring WTP. The slope stability of the spring is in jeopardy of land movement as shown by recent tree fall and damages to the spring collection system. The spring source was placed under a boil water notice in February of 2018 for inadequate filtration and not meeting chlorine contact time requirements. The source has been classified as groundwater under direct influence of surface water (GWUDI). The upper zone customers have no secondary source of water. The spring source can be tied into the lower zone storage; however, the intertie is currently valved off to prevent the lower zone customers from being placed on the boil water notice.

The spring would be rebuilt according to the recommendations made in the Preliminary Engineering Report (Water Works Engineers 2021, **Appendix B**). In sum, the effluent end of the spring would be sealed with a bentonite cut-in wall placed around the collection pipeline. A spring liner would be installed to protect the spring source from influence from surface water. The hillside around the spring

would be re-graded to direct surface water runoff away from the spring. The spring backfill source material would be the spoil pile remnants from the original spring construction. Multiple spoil piles left over from the previous construction project surround the spring site. This solution would protect the spring from surface water intrusion and would return the hillside to its original slope profile.

4.2 Spring Access Road

Access to the spring by large excavation equipment would be via the estimated 1-mile off-road path from Rock Pit Lane from the east. The road contains felled trees/vegetation and may require clearing and minor grading to provide access for large equipment.

4.3 Spring Water Treatment System Improvements

The influent piping enters the spring WTP through piping on the rear side of the WTP building. There are no pipe supports, and the connections are held together with duct tape. This piping arrangement was installed after the 2009 improvements project to bypass the pressure reducing valve (PRV) located in the valve box. The 2009 construction drawings show the PRV was designed to reduce pressure into the filters and bypass excess flows to Tank C. The treatment train consists of two parallel trains of cartridge filters; each train has a pre-filter and a polishing filter.

Although the planned spring improvements should improve the water quality to remove the groundwater influence, there will always be a long-term need to be able to provide GWUDI treatment if the spring conditions deteriorate. Pathogen removal and inactivation requirements must be accomplished through a 2-barrier system. The use of filtration and disinfection at the spring WTP gives an appropriate amount of redundancy in protection of the customers from the potential for bacterial or virus contamination of the source. A third filter assembly would be installed to accommodate 30 percent greater spring flows, up to a presumed peak flow of 60 gallons per minute (gpm) with all systems online. The third filter train would also provide redundancy for flows up to 40 gpm with one train offline. Flow control valves would be installed at each filter to limit the influent flow to each filter to 20 gpm. A pressure reducing valve (PRV) would be installed on the spring supply line to limit the inlet pressure to the filters to 25 pounds per square inch (psi). A chlorine contact pipeline would be installed between the spring WTP and the storage tanks to ensure adequate chlorine contact time.

With standby power and an uninterrupted power source (UPS) battery, the chemical feed pump could continue to chlorinate the treated water during times of power loss. An issue regarding contact time for water treatment would be solved by installing a buried large diameter contact pipeline between the spring WTP and the upper zone storage tanks. The contact pipeline would be installed with the passes extending between the spring WTP and the upper zone tanks. A 3-inch diameter pipeline on the inlet and outlet of the contact pipeline would be installed in a serpentine arrangement to accommodate slope movement due to the landslide formations of the underlying soils.

A generator would be installed at the spring WTP. The generator would be trailer mounted so that it could be relocated to another site if the spring source were no longer viable and the spring WTP were no longer in use. The trailer would be installed on a concrete pad with a locking mechanism so it could not be relocated without permission. The site would be secured with fencing to prevent intruders. The generator would have a manual transfer switch to allow the operator to switch over to generator power when grid power is lost. The chlorine pump would have an UPS to provide power between electrical service and generator power switch over.

4.4 Upper/Middle Zone Storage

The upper zone storage is provided by three 5,000-gallon plastic storage tanks named Tanks A, B, and C. The middle zone is supplied by a 3,000-gallon plastic storage tank. The tanks are all plastic agricultural water storage tanks, and therefore the material may not be NSF 61 certified for potable water use. The tanks are not installed on concrete pads and are not anchored, and there are no seismic restraints on the tanks.

Tanks A, B, and C are located adjacent to the WTP building. The tanks are supplied by the spring WTP finished water pipeline. Tanks A and B were designed to operate in series, with the overflow from Tank A supplying Tank B, to provide adequate contact time for disinfection. Tank C was designed to be supplied from the overflow from Tank B. The 3,000-gallon tank connection was designed to be supplied from Tank C overflow. In response to system needs for storage serving the upper zone, the site plumbing has been modified to eliminate the overflow tank connections; instead, the tanks are operated in parallel to maximize storage.

Tanks A and B are operated in parallel, not in series. The tank draw lines exit from the bottom of the tanks and connect to a common header that supplies Tank C. Two distribution lines are connected to Tank C's fill line. Tank C supplies the 2-inch distribution main and the 3-inch dedicated 3,000-gallon tank fill line. Flow is metered on the 1-inch, 2-inch, and 3-inch lines existing the site. Overflow from Tank B is discharged just offsite down a hillside. There is no dechlorination of the overflow. The 3,000-gallon tank serves five customers in the middle zone. The customer connections in the middle zone have a tendency for leaks due to aging plumbing infrastructure. Because the 3,000-gallon tank connection is supplied from the bottom of Tank C, excessive water use in the middle zone drains the upper zone tanks. To prevent this, the ball valve on the 3,000-gallon tank fill line is partially closed. A float valve on the influent line to the 3,000-gallon tank closes when the tank is full.

According to the geotechnical report (Bajada Geosciences 2020, included as Appendix D of the Preliminary Engineering Report located in **Appendix B**), the upper zone storage site is located on a landslide. Evidence of slope movement is visible onsite. Because of the site conditions, a permanent tank solution would not be considered for the site. Instead, a temporary solution is proposed (crosslinked polyethylene plastic tanks). The tanks would be approximately 12-feet in diameter and 16-feet tall and would have a nominal volume of 12,150 gallons. Two tanks would provide sufficient maximum daily demand (MDD) storage volume for the upper and middle zones with an additional 46 percent of MDD as emergency storage volume. The two-tank arrangement allows for one tank to be taken offline for maintenance while the other would continue to provide water storage.

The existing tanks at the upper zone tank site would be demolished. The ground surface around Tank C is showing evidence that the tank is slowly sliding downhill. The ground surface near Tanks A and B does not show the same movement signs. The new tanks would be installed on the northern edge of the site near the uphill slope where Tanks A and B are currently installed.

The existing site plumbing would be demolished to prepare for the contact pipeline installation and new yard piping for the new tanks. The tanks would be filled by a common header; separate fill and draw lines would be installed to the tanks. The tank draw lines would combine before being tied into the existing 3-inch distribution main. Tank drains would be plumbed from the tank draw lines to an onsite drainage swale. The customer connection located onsite would be tied into the common tank discharge line.

Gravel road surfacing and gravel pathways would be installed at the tank site for access to the spring WTP and walking access around the tanks. Fencing (chain link) would be installed around the site to prevent unpermitted access. Security alarms would be provided for the site access gate. Exterior building lighting would be installed at the spring WTP.

4.5 Middle Zone Tank Site

The 3,000-gallon middle zone tank is located on private property. Improvements at the middle zone tank are not proposed for this project because the District does not have property rights. The tank is required under current operating methods to reduce the service pressures to acceptable amounts in the middle zone. A PRV bypass line would be installed to connect the upper zone distribution main to the middle zone distribution main. The PRV would reduce the maximum allowable service pressure in the middle zone. PCSD could continue to operate the middle zone tank once the improvements project is complete. If the middle zone tank fails, or if the owner claims rights to the property, the bypass line could be opened, and the middle zone tank site would be isolated from the system. The middle zone customers would then be supplied from the upper zone tanks or the booster pump station, with appropriate service pressure.

4.6 Booster Pump Station and 140,000 Gallon Tank

The 140,000-gallon welded steel tank that currently provides lower zone storage was constructed in 2009. The tank is located on a public easement on private property. It is supplied by the well pump and serves the lower zone customers. High and low-level floats in the tank control the well pump. Two PRVs are located on the 6-inch distribution piping to the lower zone; a 2-inch valve is sized for low flow and a 6-inch valve is sized for high flow. The 6-inch valve is out of service and is valved off. This prevents adequate flow into the lower zone for fire suppression and high flow demands.

The California Code of Regulations requires public water systems to have a secondary water source. The PCSD has two water sources, the spring and the well, but all pressure zones cannot be served by either source. The well source would be connected to the upper and middle zones by a booster pump station located at the lower zone tank site.

The booster pump would be supplied by the lower zone tank. The pump station discharge would be tied into the existing 3-inch main that connects the upper zone tank site to the middle zone and the lower zone tanks. The main runs beneath Spring Canyon Road, which is a gravel road that provides access to the 12 customers in the upper zone. The 3-inch main would be tied into the 1-inch and 2-inch distribution mains and the middle zone tank fill line. The 1-inch line would be demolished between the upper zone tank site and the 3-inch main connection.

The system pressures for the upper and middle zones are set by the respective tank operating water levels. The booster pump station operation would increase the service pressures at the customer connections. The booster pump station capacity would be 50 gpm to balance the fill time for the upper zone tanks (8 hours) while not drawing down the volume in the lower zone tank faster than the well pump can refill the tank (60 gpm).

The pump station would be installed inside a concrete masonry unit (CMU) block building. The CMU building would also house the pump station control panel and motor control center. The building would

have electric cooling and heating systems to satisfy the needs of the electrical and mechanical equipment in the building.

The centrifugal pump arrangement would include two 50 gpm supply pumps, one duty and one standby, and a single 500 gpm high flow pump to supply the hydrant pipeline. The pump would provide a minimum of 20 psi to the uppermost hydrant at the upper zone tank site (see Section 4.7, below). The supply pumps would be designed to operate in either a manual or automatic configuration. The high flow pump would be enabled in normal operation and would start and stop based on system pressure.

The 3-inch gravity main is connected to the 3-inch well pump discharge line and tank fill line at the lower zone tank site. The gravity line tie-in to the 3-inch well pump discharge line would be removed, and the well discharge line would be reconnected to the tank fill line with a straight run of pipe.

One 8-inch suction line would be installed in the tank sidewall of the lower zone tank. The discharge header for the supply pumps will connect to the 3-inch distribution main. The high flow pump discharge would tie into the 8-inch fire suppression service main (see Section 4.7, below). A flexible expansion joint would be installed above grade between the exposed and buried suction lines to the pump station to allow for ground movement due to slope instability since the lower zone tank is also located on a landslide formation, although the formation is not as active at the upper zone tank site.

A bypass line would be installed between the supply pump suction and the pump discharge lines. The bypass line would have a gate valve and an altitude valve. The gate valve would be closed when the pump station is in manual or automatic operation. When the gate valve is open, flows from the spring site could be transmitted to the lower zone tank. The altitude valve would close when the lower zone tank is at the maximum operating level.

The pump station and tank site would be enclosed with site fencing, and parking and exterior building lights would be installed.

Level transducers would be installed on the upper zone tanks. The control signals from the transducers to the pump station would be transferred by fiber optic cable. The fiber optic cable would be installed parallel to the 8” diameter main.

The high flow pump would also be supplied from the same 8-inch suction line. The high flow pump would be controlled by system pressure of the 8-inch fire suppression service main and would be in automatic control under normal operation. All pumps would lockout when the lower zone tank reaches a low level.

The proposed pump station site does not have electrical service. There is a nearby Pacific Gas & Electric (PG&E) power pole with 12-kilovolt service that could provide 3-phase power to the site. Electric power is often shut down to the area. The pump station would have standby generator power for times when the power service is not available. The generator would have an automatic transfer switch.

4.7 New 8-Inch Transmission Main and Fire Suppression

The system as a whole has adequate storage volume for total MDD and fire flow volume. The upper and middle zones are deficient in fire flow storage. The 50,300-gallons of excess storage above fire flow and MDD in the lower zone tank would be beneficial to the upper and middle zones for fire flow. The District currently has no ability to provide fire flows from the lower zone tank to the upper and middle zones.

The project would provide a pump station and transmission pipeline to serve the upper and middle zone customers fire flow from the lower zone tank.

The maximum pressure rating of the 3-inch main is 250 psi which would accommodate a maximum flow of 145 gpm from the booster pump station. This flow rate is not adequate for fire suppression. The fire suppression system would be designed for 500 gpm, which is the minimum flow rate for municipal fire hydrants. A new 8-inch HDPE fire suppression service pipeline would be installed and would run approximately 1-mile from the booster pump station to the upper zone tank site along the 3-inch main alignment. Trenching for this alignment would also allow for a fiber optic cable to be installed from the upper zone tank site to the booster pump station to transmit level signals from upper zone tanks for the booster pump station control. The gravel road would be restored to pre-construction conditions following the pipeline installation and other system improvements. Ten fire hydrants would be located at approximately 500-foot intervals along the 8-inch fire suppression service pipeline, mostly in the upper zone, targeting driveway locations and including one at the upper and middle tank locations. The section of pipeline between the middle zone tank and the lower zone tank is not along a road or near service connections, so no fire hydrants are required in that section. (Fire hydrants are already in place and have existing water supply in the lower zone).

Level transducers would be installed on the upper zone tanks. The control signals from the transducers to the pump station would be transferred by fiber optic cable. The fiber optic cable would be installed parallel to the 8-inch diameter main.

The middle zone customers have no fire suppression, and they cannot be served by the new 8-inch main. A hydrant would be installed on Rock Pit Road at the south end of town which is in the vicinity of the middle zone customer properties. The hydrant line would be connected to the 6-inch lower zone distribution main along SR 254. The hydrant location would be within 500-feet of the surrounding customers and will be located at an elevation to provide a minimum service pressure of 20 psi.

4.8 Well and Well House

The original well source for the PCSD was a 50-foot deep agricultural well. A 140-foot deep well with a 29-foot sanitary seal was drilled in 2017 to replace the agricultural well. California Well Standards define the requirements for community wells. In particular, the minimum required sanitary seal for a community/public water system well is 50-feet. DDW made a special exception for the depth of the sanitary seal of the existing well because of the unlikelihood of possible contaminating activities (PCA) in the vicinity of the well. The well WTP serves as a storage room and contains the well pump discharge flow meter, raw water sample point, and the chlorine injection point. There is a chlorine analyzer in the building, but it is broken and is offline. The district chlorinates the well source for precautionary reasons as recommended by the DDW.

The shed adjacent to the well house contains the sodium hypochlorite storage drums in 55-gallon capacities, the chlorine solution tank, and the injection pump for the well discharge chlorination. There is no secondary containment for the chlorine storage. The District prefers to use a Stenner brand peristaltic pump for chlorine injection, as previous experience with diaphragm injection pumps was poor.

The well pump is not maintaining the 60 gpm flow rate that it provided at installation in 2017. The capacity has slowly decreased to 35 gpm over time. The well completion report states the screened

portions of the well are installed in sandy gravel and fractured sandstone deposits. The alluvial deposits in the formation are small diameter deposits. Since further information has not been provided on the well construction or the formation sieve analysis, the assumption for the reduced well pump capacity is that the alluvial deposits are clogging the gravel pack and therefore water is not able to enter the well as freely as when the well was first installed. The reduced capacity of the well pump may also be attributed to iron deposits in the gravel pack due to air entrainment in the aquifer. The best solution to revive the well capacity is to re-develop the well. The formation and/or iron deposits may return over time because of the well construction methods, so redevelopment may not be a permanent solution to solve the reduced capacity at the well.

A second well would be drilled in addition to redeveloping the existing well to ensure a secondary source of water for the District, and to provide redundancy to the first well. The new well would be installed approximately 60 feet from the existing well. The well would have similar specifications (140 feet deep with 29-foot sanitary seal, well pump capacity 60 gpm) with a factory slotted 50-slot screen and an 8x12-foot gradation gravel pack. The well would be properly developed after drilling. The two wells would operate in a one plus one operation with one well as a standby well. The operator would manually alternate the well pump in operation on a monthly or bimonthly basis to exercise the pumps.

4.9 Well Water Treatment Plant

The well water treatment plant interior plumbing would be demolished. New well discharge piping, chlorine injection equipment, and a finished water sample station would be provided in the well house. A new roof would be installed on the existing block building. The well site would be enclosed with fencing and exterior building lights would be installed.

The 55-gallon sodium hypochlorite storage containers and mixing tank would be relocated into a secondary containment shed located on a concrete pad adjacent to the well water treatment plant. The existing chemical shed would be demolished. Two new chlorine injection pumps would be provided, one duty and one standby. These would be wall-mounted in the water treatment plant.

The chemical injection pump would be powered by a circuit that is energized when the well pump is running, so the injection pump would only operate when the well pump is operating. The well water treatment plant currently has a generator with a manual transfer switch. When power to the site fails, the well pump and chemical injection pump shut down. When the operator manually transfers power, both pumps are brought back online on generator power. The lower zone tank has adequate storage to compensate for this lapse in operation during a power failure.

The well water treatment plant plumbing would be demolished and replumbed to be supported off the ground. The well WTP piping arrangement would be replaced with new PVC piping. A flow meter with automatic flow totalizer would be installed.

The existing roof is plywood with chicken-wire covered ventilation gaps. Evidence of rodent intrusion is apparent in the well WTP. A permanent roof solution would be installed at the well WTP. The roof design would allow for natural light entry into the building, would have proper ventilation, and would prevent rodent intrusion.

4.10 CONSTRUCTION SCHEDULE

Ninety percent design plans are expected to be completed in July 2021. Pre-construction activities are planned for January 2022 through July 2022 and construction is planned for May 2022 through April 2023.

4.11 WATER SUPPLY PERMIT

In 1994 the SWRCB previously certified that the PCSD drinking water system meets the definition of a public water system under jurisdiction of the DDW. The SWRCB is identified as a Responsible Agency per CEQA Guidelines Sections 15040 through 15045 for the proposed project as this agency has provided State funds and has determined that the previously issued Water Supply Permit (No. 01-01-94P-334) shall be amended following public circulation of the draft ISMND and adoption of the same by the Lead Agency.

5.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

6.0 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 I) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
☐	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

[To be completed by the lead agency]

Elisa Hendershot — Signature

Aril 9, 2021 — Date

Printed Name

For

7.0 ENVIRONMENTAL INITIAL STUDY CHECKLIST

The lead agency has defined the column headings in the environmental checklist as follows:

A. "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.

B. "Less Than Significant with Mitigation Incorporated" applies where the inclusion of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." All mitigation measures are described, including a brief explanation of how the measures reduce the effect to a less than significant level. Mitigation measures from earlier analyses may be cross-referenced.

C. "Less Than Significant Impact" applies where the project does not create an impact that exceeds a stated significance threshold.

D. "No Impact" applies where a project does not create an impact in that category. "No Impact" answers do not require an explanation if they are adequately supported by the information sources cited by the lead agency which show that the impact simply does not apply to projects like the one involved (e.g., 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 (e.g., the project would not expose sensitive receptors to pollutants, based on a project specific screening analysis).

7.1 AESTHETICS

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:					
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c)	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?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Environmental Setting

Humboldt County is an area of diverse visual character, including timberland, range, mountains, rolling hills, and streams. The project site is located in and around the community of Phillipsville, which lays to the east of the South Fork Eel River. A few small side streets provide access to the east bank of the river and to an area of grassy fields and farmland along a small plain adjacent to the river; these streets also host residences and other structures. Isolated large trees and small pockets of trees exist in this area as well. Immediately to the east is State Route (SR) 254, which provides the main thoroughfare through the community. Along SR 254 are some residences, community institutions (such as the local fire department and post office), and businesses (such as markets and small inns). The terrain begins to rise sharply just east of SR 254, and the area consists of steep hillsides covered in Douglas fir and other dense vegetation. A few clearings exist along the hillside, including access roads, scattered residences and outbuildings, and a dormant sand and gravel quarry. Much of the infrastructure of the proposed project is located on this hillside. Terrain continues to rise as one moves east; the highest elevation in the project area is just over 1,200 feet near the northern section of the spring access road. The terrain continues to rise to the north and east.

Part 3, Chapter 10.7 of the 2017 Humboldt County General Plan states that, although there are no "officially designated" scenic highways in Humboldt County, nearby US-101 and SR 254 in the Avenue of the Giants Community Plan Area could be eligible for official designation. The 2017 General Plan defines a scenic highway as one that, in addition to its transportation function, provides opportunities for the enjoyment of natural or scenic resources. The 2017 General Plan states that "[s]cenic highways direct views to areas of exceptional beauty, natural resources or landmarks, or historic or cultural interest."[1]

[1] Humboldt County. 2017. Humboldt County General Plan, page 10-46.

While no there are no officially designated State Scenic or County Scenic highways in the County, Caltrans' list of *eligible* State Scenic Highways include the following near the project site (Caltrans 2020):

- US-101 (includes entire length within Humboldt County);
- CA Route 254 (post mile 0.0 to 46.5) from its split with US 101 just south of Phillipsville to where it rejoins 101 between Redcrest and Scotia;

254 runs directly through the community of Phillipsville and, thus, through the project area, along the east bank of the South Fork Eel River. US 101 runs roughly parallel to SR 254 near the project site, along the west bank of the South Fork Eel River. SR 254 provides direct access to the project site in both directions, and the project area can be accessed from the south via US 101 Exit 654 approximately two miles south of Phillipsville. From the north, the project area can be accessed by travelling directly along SR 254 or by taking exit 650 from US 101 southbound.

Views along both sides of US 101 include heavily forested hillsides, along with grass and brush closer to the highway. Looking west, the land slopes steeply up. Looking east, the land slopes down to the South Fork Eel River, permitting some views of the river and of the forested hillsides on the opposite shore to the east. Some minor portions of the project area, especially those at higher elevations on westward facing slopes, may be visible when looking east from US 101, although no removal of live trees is proposed.

Views from SR 254 in the vicinity of the project site often include dense vegetation. Individual trees and stands of redwoods, Douglas fir, other conifers, some hardwood trees, and leafy shrubs are common on both sides of the road but are more pronounced looking east. Some land immediately to the east of the road also contains visible homes, businesses, and community institutions. Land to the east begins to rise sharply and includes mostly tree-covered hillsides, while views to the west look out over flatter land, which contains some homes and businesses, grassy fields, small roads, and farmlands. Though the South Fork Eel River is generally not visible from SR 254, the tree-covered hillsides on the opposite shore of the river are sometimes visible through clearings. Most project operations would likely not be visible in either direction from SR 254 given their distance from the road, the elevation change, and the presence of obscuring vegetation.

Impact Analysis

a) Have a substantial adverse effect on a scenic vista?

Less than significant impact. A scenic vista is defined as a viewpoint that provides expansive views of a highly-valued landscape (such as an area with remarkable scenery or a resource that is indigenous to the area) for the benefit of the general public. There are no designated scenic vistas in the project area. Though portions of the project site would be visible from eligible scenic routes US 101 and SR 254, work is not generally expected to be visible from either road given the topography of the project area and the density of the vegetation in most locations. A few instances of isolated brush clearing or temporary construction work may be visible from small segments of either road. However, given the lack of officially designated scenic vistas, the small scope of work that would be visible, and the few, if any, locations along either road from which such work would be visible, any impacts would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less than significant impact. Though there are no currently designated scenic highways in the project area, both US 101 and SR 254 are eligible as described above. The proposed project would not damage rock outcroppings, historic buildings, or other scenic resources in the project area. However, isolated tree pruning, and some brush removal, may be required along access roads and work areas to ensure access and safe working conditions. Such work would be isolated in nature and generally not visible from either highway given the topography of the area, the location of such work on the hills and/or in previously disturbed areas, and the obscuring vegetation that generally exists along both highways. Any impacts would be less than significant.

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 a 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. Sensitive viewer groups typically include residents, recreationists, and motorists. The project is in a non-urbanized area. Most work would be concentrated in previously disturbed areas and would not include additional clearing of vegetation beyond the minimum required to ensure site access and safety. Most work would be concentrated in areas of previous disturbance and would mostly include the updating of existing infrastructure. Additionally, most work would be obscured from public view by the topography and dense vegetation of the areas. Therefore, any impacts would be less than significant.

d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Less than significant impact. The proposed project would include updating existing water procurement infrastructure. Lighting requirements are expected to be minimal, given that most work and access would be conducted during daytime hours, however emergency and security lighting would need to be installed in certain areas. These areas would consist mainly of the two water treatment plants and the booster pump. The use of such lighting would be minimized to the extent possible and only the minimum needed to provide security and occasional nighttime maintenance and service would be used. Lighting would be shielded and downward facing to reduce glare and light pollution to the extent practicable. Therefore, impacts would be a less than significant impact, and no mitigation is necessary.

Findings

a) The project would not have a substantial adverse effect on a scenic vista: **Less than significant impact.**

b) The project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway: **Less than significant impact.**

c) The project would not conflict with applicable zoning and other regulations governing scenic quality: **Less than significant impact.**

d) The project will not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area: **Less than significant impact**.

7.2 AGRICULTURE AND FORESTRY RESOURCES

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☒	☐
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐
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?	☐	☐	☒	☐

Environmental Setting

The General Plan land use designations for the project site are: Agricultural Exclusive (AE); Public Facility (PF); Residential Agriculture 5-20 Acres (RA5-20); and Timberland (T). Timberland is primarily on the eastern side of the project site (roughly south and east of the spring site) and would include the unpaved access road to the spring. RA5-20 is the most common designation between the spring site and CA 254. The spring site is designated as Public Facility. The area surrounding the well site is designated AE. The zoning codes for properties affected by the project are: Agriculture Exclusive (AE); Agriculture General (5 acre minimum) (AG-B-5(5)); Flood Plain Qualified Combining (FP-Q); Timber Production Zone (TPZ); and Unclassified (U). TPZ is mostly along the eastern side of the project site (roughly south and east of the spring site) and would include the unpaved access road to the spring; some parcels in this area are also zoned AE. A few parcels east of the spring are zoned U. The parcels including the spring site and associated infrastructure are zoned AG-B-5(5), as are parcels between the spring and SR 254. The parcels including the well and associated infrastructure are zoned FP-Q. Land uses in the project area include residential, agricultural, timber, and light commercial.

The Farmland Mapping and Monitoring Program (FMMP) of the California Department of Conservation (CDC) has not yet mapped farmland in Humboldt County (CDC 2020a). Accordingly, Humboldt County does not display data for the California Important Farmland Finder (CDC 2020b). According to the

Natural Resources Conservation Service (NRCS) Web Soil Survey, the following soil map unit representing prime farmland is present on the site:

- Map Unit 187—Pepperwood-Shivelyflat complex, 0 to 2 percent slopes. This unit is considered prime farmland if irrigated. It is present in APN 214-131-016-000.

As a means of agricultural land preservation, the State Legislature enacted the California Land Conservation Act of 1965 commonly called the "Williamson Act." Under the Act, property owners may enter into contracts with their county to keep their lands in agricultural production for a minimum of 10 years in exchange for property tax relief. Lands covered by Williamson Act contracts are assessed based on their agricultural value instead of their potential market value under non-agricultural uses and are known as "Agricultural Preserves." According to Humboldt County Web GIS mapping there are no portions of the project area that are under Williamson Act contract.

The Z'berg-Warren-Keene-Collier Forest Taxation Reform Action 1979 requires counties to provide for the zoning of land used for growing and harvesting timber as timberland preserve. Portions of the project site are zoned Timber Production Zone; however, no timber activities are currently taking place at the site or on adjacent properties.

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection (CAL FIRE) regarding the State's inventory of forest land, including the Fire and Resource Assessment Program and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board (CARB).

Impact Analysis

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Less than significant impact. As previously mentioned, Humboldt County is not included in the FMMP. Though one parcel of the project site contains soil rated Prime Farmland if Irrigated by the NRCS, it would not be converted from an agricultural to a non-agricultural use. Present intensity and nature of use would remain. Any impact would be less than significant.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

Less than significant impact. As stated above, no portions of the project site are under Williamson Act contract. Some properties within the project site are zoned Agriculture Exclusive (AE) or Agriculture General (5 acre minimum) (AG-B-5(5)) (see section 8.11 for a complete description). However, rural residential, agricultural, and other ancillary uses are allowable under such zoning, and the project would not conflict with any authorized use or current land use. It would not significantly increase built footprint, would not render any additional land unusable for agriculture, and would not have growth

inducing or indirect effects that would conflict with agricultural use. Any impact would be less than significant.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

Less than significant impact. Some parcels on the project site are zoned as Timber Production Zone (TPZ) and are currently forested. No aspect of the proposed project would interfere with the required characteristics of TPZ nor with the ability to grow trees now or in the future; all proposed construction of new facilities would occur in within or immediately adjacent to the existing disturbance footprint and would not require any tree removal. The proposed project does not require a rezone, and any impacts would be less than significant.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

Less than significant. Portions of the project site are zoned Timber Production Zone (TPZ) and currently contain forest cover. No removal of trees is proposed, and clearance of existing roadways would be limited to removing dead and downed trees. A shallow trench approximately 1-3’ deep by 400’ long may be excavated to accommodate a new 1-2” water pipeline; this trench has the potential to disturb some surface roots of nearby redwoods and Douglas fir, but this not expected to significantly impair the health of any of the trees. Final design of the trench placement would make accommodations for the presence of trees to the maximum extent practicable and thus avoid most root systems. These potential impacts would be less than significant.

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. Improvements related to the proposed project would take place within or immediately adjacent to the existing footprint of disturbance. The improvements would not conflict with any existing, planned, or ongoing agriculture or timber growing or harvesting. To ensure that the one-mile gravel road to the spring is accessible for construction equipment, no removal of live trees would be required. Only removal of downed trees is proposed. Therefore, the project would not lead to the conversion of farmland to non-agricultural use or forest land to non-forest use in the surrounding project area. Any impacts would be less than significant.

Findings

a) The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use: **Less than significant impact.**

b) The project would not conflict with existing zoning for agricultural use, or a Williamson Act contract: **Less than significant impact**.

c) The project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526): **Less than significant impact**.

d) The project would not result in the loss of forest land or conversion of forest land to non-forest use: **Less than significant impact**.

e) The project would not 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.**

7.3 AIR QUALITY

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance 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:					
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Environmental Setting

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

Project activities are subject to the authority of the North Coast Unified Air Quality Management District (NCUAQMD) and the California Air Resources Board (CARB). NCUAQMD is listed as "attainment" or "unclassified" for all the federal and state ambient air quality standards except for the state 24-hour particulate (PM_{10}) standard, which relates to concentrations of suspended airborne particles that are 10 micrometers or less in size.

In determining whether a project has potentially significant air quality impact on the environment, agencies often apply their local air district's thresholds of significance to project impacts in the review process. The District has not formally adopted specific significance thresholds, but rather utilizes the Best Available Control Technology (BACT) emissions rates for stationary sources as defined and listed in the NCUAQMD Rule and Regulations, Rule 110 – New Source Review (NSR) and Prevention of Significant Deterioration (PSD), Section 5.1 – BACT (pages 8-9)[2].

[2] North Coast Unified Air Quality Management District. 2021. District Rules and Regulations. Available at: http://www.ncuaqmd.org/index.php?page=rules.regulations. Accessed 2/17/21.

Sensitive receptors, including residences, are scattered throughout the project site. Project improvements would be disbursed throughout PCSD, as would any potential air quality impacts from construction. However, any potential air quality impacts during project operation would stem from operation of the one existing and two proposed backup generators during times of power failure. The nearest sensitive receptors to the well WTP and its associated backup generator are residences approximately 700 feet to the south. The nearest sensitive receptors to the proposed booster pump site and its proposed associated backup generator are residences approximately 400 feet away and a motel approximately 400 feet to the west. The nearest sensitive receptors to the spring WTP and its proposed backup generator are residences approximately 1,000 feet to the west.

Impact Analysis

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than significant impact. A potentially significant impact to air quality would occur if the project would conflict with or obstruct the implementation of the applicable air quality management or attainment plan. Therefore, it is necessary to assess the project's consistency with these plans.

The California Clean Air Act (CCAA) requires the NCUAQMD to achieve and maintain state ambient air quality standards for PM_{10} by the earliest practicable date. The NCUAQMD prepared the Particulate Matter Attainment Plan, Draft Report, in May 1995. This report includes a description of the planning area (North Coast Unified Air District), an emissions inventory, general attainment goals, and a listing of cost-effective control strategies. The NCUAQMD's attainment plan established goals to reduce PM_{10} emissions and eliminate the number of days in which standards are exceeded. The plan includes three areas of recommended control strategies to meet these goals: (1) transportation, (2) land use, and (3) burning. Control measures for these areas are included in the Attainment Plan. The project design incorporates control measures identified in the PM_{10} Attainment Plan appropriate to this type of project, such as:

1) The project would be located on a site with existing water procurement, treatment, and distribution infrastructure. As the project would consist of updating existing infrastructure and maintain current employment levels and hours, vehicle miles traveled are not anticipated to increase.

2) The project would apply water in construction areas to control dust. Paved and gravel access roads would control dust.

3) The project involves upgrading existing water procurement, treatment, and distribution infrastructure. The intensity of use, built footprint, and amount of water delivered would not change significantly from existing conditions. Land use would not change, and no other uses of the land would be impaired. Particulate emissions from the proposed project would be appropriate for its General Plan Designations.

4) The proposed project's operation does not include any burning and would not employ wood stoves for heat or burn piles to dispose of biomass.

The proposed project would not obstruct implementation of the NCUAQMD Attainment Plan for PM_{10}. Any impact would be less than significant.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard?

Less than significant impact. Air quality standards within the NCUAQMD are set for emissions that may include, but are not limited to: visible emissions, particulate matter, and fugitive dust. Pursuant to Air Quality Regulation 1, Chapter IV, Rule 400 – *General Limitations*, a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, endanger the comfort, repose, health or safety of any such persons or the public, or have a natural tendency to cause injury or damage to business or property. Visible emissions include emissions that are visible to the naked eye, such as smoke from a fire. The proposed project involves upgrading existing water procurement, treatment, and distribution infrastructure. No activities resulting in visible emissions, including intentional fire/burn, would be associated with the project.

Air quality impacts can be divided into two phases for a project: construction and operation.

Mobile sources of emissions include equipment used during short-term construction and vehicle/truck traffic and light-duty equipment from long-term operation. According to NCUAQMD Rule 102, the Air District does not currently require permits for the operation of heavy equipment used for construction (except pavement burners) or agricultural operations.[3] There are no "target" air quality standards/limits in this area; however, heavy equipment is generally subject to off-road equipment emission standards from CARB and exceeding those standards may constitute a "nuisance" condition and can be mitigated by proper equipment maintenance.

The project proposes to update existing infrastructure and would include improvements to the spring, drilling a secondary well, installing a booster pump, replacing existing tanks, installing two backup generators, and upgrading and adding new water distribution piping and fire hydrants. Emissions from construction equipment would occur for a limited period, and the equipment would be maintained to meet current emissions standards as required by CARB and the NCUAQMD. The anticipated average daily trips would be up to 4 (2 in/2 out) on weekdays during normal project operation. This may be an overestimate, since only two part time employees are typically involved in day-to-day operations, and both employees would not necessarily travel to and from work on each weekday. The current level of employment and hours (i.e., those under existing conditions) would be maintained with implementation of the proposed project.

Stationary sources of emissions from the project would include one existing and two proposed backup generators. The backup generators would be maintained in good working order and would only be used for short durations during times of power failure.

The project has the potential to generate particulate matter (dust) during construction activities. All activities at the project site are required to meet NCUAQMD Air Quality standards, including Regulation 1, which prohibits nuisance dust generation and is enforceable by the District. The NCUAQMD currently enforces dust emissions according to the CA Health and Safety Code (Section 41701) which limits visible dust emissions that exceed 40% density to a maximum of 3 minutes for any one-hour period. NCUAQMD District Rule 104 states that "*reasonable precautions shall be taken to prevent particulate matter from becoming airborne*." The US Environmental Protection Agency (USEPA) has determined that dust

[3] North Coast Unified Air Quality Management District. 2021. District Rules and Regulations. http://www.ncuaqmd.org/index.php?page=rules.regulations. Accessed 2/17/21.

generally settles out of the atmosphere within 300 feet of the source. The closest sensitive receptors are approximately 400 feet away from project improvements, and because of the limited activity that would occur, the rapid dissipation of the dust, and the distance and low density of residences, potential impacts would be less than significant.

The project has the potential to generate particulate matter (dust) during construction activities. All activities at the project site are required to meet NCUAQMD Air Quality standards, including Regulation 1, which prohibits nuisance dust generation and is enforceable by the District.[4] Rule 104 states that:

1. No person shall allow handling, transporting, or open storage of materials in such a manner which allows or may allow unnecessary amounts of particulate matter to become airborne

2. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne, including, but not limited to, the following provisions:

    a. Covering open bodied trucks when used for transporting materials likely to give rise to airborne dust.

    b. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Containment methods can be employed during sandblasting and other similar operations.

    c. Conduct agricultural practices in such a manner as to minimize the creation of airborne dust.

    d. The use of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.

    e. The application of asphalt, oil, water or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dusts.

    f. The paving of roadways and their maintenance in a clean condition.

    g. The prompt removal of earth or other track out material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

The proposed project would comply with NCUAQMD regulations, thus potential impacts would be minimal.

Carbon monoxide (CO) hot spots are typically associated with idling vehicles at extremely busy intersections (i.e., intersections with an excess of 100,000 vehicle trips per day). There are no projected CO hot spot intersections in Humboldt County or in the general project area which exceed the 100,000 vehicles per day threshold typically associated with CO hot spots. In addition, the NCAB is currently in attainment for CO. As such, project-related vehicular emissions would not create a hot spot nor contribute to an existing one.

[4] North Coast Unified Air Quality Management District. 2015. 2015. General Provisions, Permits & Prohibitions. Adopted July 9, 2015.

Therefore, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Additionally, the project would not 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. Impacts would be less than significant, and no mitigation would be necessary.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact. Sensitive receptors (e.g., 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. Sensitive receptors include residences throughout the District. The closest sensitive receptors to one of the major project improvement sites are residences 400 feet away.

As indicated by the air quality impact analysis under subsection b), the proposed project would not produce significant quantities of criteria pollutants (e.g., PM_{10}) during short-term construction activities or long-term operation. In addition, the proposed project would not create a CO hot spot.

Any pollutant emissions from construction would be short term and temporary. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant, and no mitigation would be necessary.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than significant impact. Odors during the construction phase would consist primarily of diesel truck fumes; however, these impacts would be temporary and less than significant. Odors from operations would be limited to diesel fumes from the three backup generators and would be limited to periods of power failure. The proposed project would not result in substantial other emissions (such as those leading to odors) affecting a substantial number of people. Impacts would be less than significant, and no mitigation would be necessary.

Findings

a) The project would not conflict with or obstruct implementation of the applicable air quality plan. **Less than significant impact.**

b) The project would have a less than significant impact on 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.**

c) The project would not expose sensitive receptors to substantial pollutant concentrations. **Less than significant impact.**

d) The project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. **Less than significant impact**.

7.4 BIOLOGICAL RESOURCES

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
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?	☐	☐	☒	☐

A Biological Resources Evaluation was prepared for this project by HELIX Environmental Planning, Inc. (HELIX 2021a) and is included as **Appendix C** to this ISMND. The discussion of biological resources in this section is based on the results of that evaluation.

Regulatory Setting

Policies, regulations, and plans pertaining to the protection of biological resources on the project site are summarized in the following subsections.

Federal Requirements

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) enforce the provisions stipulated within the Federal Endangered Species Act of 1973 (FESA; 16 USC 1531 et seq.). Species identified as federally threatened or endangered (50 CFR 17.11, and 17.12) are protected from take, defined as direct or indirect harm, unless a Section 10 permit is granted to an entity other than a federal agency or a Biological Opinion with incidental take provisions is rendered to a federal lead agency via a Section 7 consultation. Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed species may be present in the study area and determine whether the proposed project will jeopardize the continued existence of or result in the destruction or adverse modification of critical habitat of such species (16 USC 1536 (a)[3], [4]). Other federal agencies designate species of concern (species that have the potential to become listed), which are evaluated during environmental review under the National Environmental Policy Act (NEPA) or CEQA although they are not otherwise protected under FESA.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 established federal responsibilities for the protection of nearly all species of birds, their eggs, and nests. The Migratory Bird Treaty Reform Act of 2004 further defined species protected under the act and excluded all non-native species. Section 16 U.S.C. 703–712 of the Act states "unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill" a migratory bird. A migratory bird is any species or family of birds that live, reproduce or migrate within or across international borders at some point during their annual life cycle. Currently, there are 836 migratory birds protected nationwide by the MBTA, of which 58 are legal to hunt. The US Court of Appeals for the 9th Circuit (with jurisdiction over California) has ruled that the MBTA does not prohibit incidental take (952 F 2d 297 – Court of Appeals, 9th Circuit 1991).

Clean Water Act

Any person, firm, or agency planning to alter or work in waters of the US, including the discharge of dredged or fill material, must first obtain authorization from the US Army Corps of Engineers (USACE) under the Clean Water Act (CWA; 33 USC 1344). Permits, licenses, variances, or similar authorization may also be required by other federal, state, and local statutes. Section 10 of the Rivers and Harbors Act prohibits the obstruction or alteration of navigable waters of the US without a permit from USACE (33 USC 403).

Waters of the U.S. include certain wetlands; wetlands are defined in 33 CFR Part 328 as:

> those areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Section 401 of the CWA requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the US also obtain a state certification that the discharge complies with all applicable water quality standards, limitations, and restrictions. The Regional Water Quality

Control Board (RWQCB) administers the certification program in California and no license or permit may be issued until certification has been granted.

Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the US.

Section 404 establishes a permit program administered by USACE that regulates the discharge of dredged or fill material into waters of the U.S. (including wetlands). Implementing regulations by USACE are found at 33 CFR Parts 320-332. The Section 404 (b)(1) Guidelines were developed by the USEPA in conjunction with USACE (40 CFR Part 230), allowing the discharge of dredged or fill material for non-water dependent uses into special aquatic sites only if there is no practicable alternative that would have less adverse impacts.

State Requirements

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code Sections 2050 to 2097) is similar to the FESA. The California Fish and Game Commission is responsible for maintaining lists of threatened and endangered species under CESA. CESA prohibits the take of listed and candidate (petitioned to be listed) species. “Take” under California law means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill (California Fish and Game Code, Section 86). The California Department of Fish and Wildlife (CDFW) can authorize take of a state-listed species under Section 2081 of the California Fish and Game Code if the take is incidental to an otherwise lawful activity, the impacts are minimized and fully mitigated, funding is ensured to implement and monitor mitigation measures, and CDFW determines that issuance would not jeopardize the continued existence of the species. A CESA permit must be obtained if a project will result in the “take” of listed species, either during construction or over the life of the project. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

California Code of Regulations Title 14 and California Fish and Game Code

The official listing of endangered and threatened animals and plants is contained in the California Code of Regulations Title 14 §670.5. A state candidate species is one that the California Fish and Game Code has formally noticed as being under review by CDFW to include in the state list pursuant to Sections 2074.2 and 2075.5 of the California Fish and Game Code.

Legal protection is also provided for wildlife species in California that are identified as “fully protected animals.” These species are protected under Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species at any time. CDFW is unable to authorize incidental take of fully protected species unless any such take authorization is issued in conjunction with the approval of a Natural Community Conservation Plan that covers the fully protected species (California Fish and Game Code Section 2835).

California Environmental Quality Act

Under the California Environmental Quality Act of 1970 (CEQA; Public Resources Code Section 21000 et seq.), lead agencies analyze whether projects would have a substantial adverse effect on a candidate, sensitive, or special-status species (Public Resources Code Section 21001(c)). These "special-status" species generally include those listed under FESA and CESA, and species that are not currently protected by statute or regulation, but would be considered rare, threatened, or endangered under the criteria included CEQA Guidelines Section 15380. Therefore, species that are considered rare are addressed under CEQA regardless of whether they are afforded protection through any other statute or regulation. The California Native Plant Society (CNPS) inventories the native flora of California and ranks species according to rarity; plants ranked as 1A, 1B, 2A, 2B, and 3 are generally considered special-status species under CEQA.[5]

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare if it can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals. Section 15380(d) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (i.e., candidate species) would occur.

California Native Plant Protection Act

The California Native Plant Protection Act of 1977 (California Fish and Game Code Sections 1900-1913) empowers the Fish and Game Commission to list native plant species, subspecies, or varieties as endangered or rare following a public hearing. To the extent that the location of such plants is known, CDFW must notify property owners that a listed plant is known to occur on their property. Where a property owner has been so notified by CDFW, the owner must notify CDFW at least 10 days in advance of any change in land use (other than changing from one agricultural use to another), in order that CDFW may salvage listed plants that would otherwise be destroyed. Currently, 64 taxa of native plants have been listed as rare under the act.

Nesting Birds

California Fish and Game Code Subsections 3503 and 3800 prohibit the possession, take, or needless destruction of birds, their nests, and eggs, and the salvage of dead nongame birds. California Fish and Game Code Subsection 3503.5 protects all birds in the orders of Accipitriformes, Falconiformes, and Strigiformes (birds of prey). Fish and Game Code Subsection 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA. The Attorney General of California has released an opinion that the Fish and Game Code prohibits incidental take.

Porter Cologne Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act, Water Code Section 13000 et seq.) is California's statutory authority for the protection of water quality in conjunction with the federal CWA.

[5] The California Rare Plant Rank system can be found online at https://www.cnps.org/rare-plants

The Porter-Cologne Act requires the State Water Resources Control Board (SWRCB) and RWQCBs under the CWA to adopt and periodically update water quality control plans, or basin plans. Basin plans are plans in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The Porter-Cologne Act also requires dischargers of pollutants or dredged or fill material to notify the RWQCBs of such activities by filing Reports of Waste Discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, National Pollution Discharge Elimination System (NPDES) permits, Section 401 water quality certifications, or other approvals. The RWQCB will assert jurisdiction over any waters of the state, including wetlands, regardless of whether or not the feature qualifies as waters of the U.S.

California Fish and Game Code Section 1602 – Lake and Streambed Alteration Program

Diversions or obstructions of the natural flow of, or substantial changes or use of material from the bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by CDFW, pursuant to Section 1602 of the California Fish and Game Code. The CDFW requires notification prior to commencement of any such activities, and a Streambed Alteration Agreement (SAA) pursuant to Fish and Game Code Sections 1601-1603, if the activity may substantially adversely affect an existing fish or wildlife resource. A lake under CDFW jurisdiction is defined as "a permanent natural body of water of any size or an artificially impounded body of water of at least one acre, isolated from the sea, and having an area of open water of sufficient depth and permanency to prevent complete coverage by rooted aquatic plants" (CCR Vol. 18 Title 14, Section 1562.1). Streambeds within CDFW jurisdiction are based on the definition of a stream as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life" (CCR Vol. 18 Title 14, Section 1.72).

Environmental Setting

Reconnaissance Survey

A biological resources reconnaissance survey was conducted by HELIX Wildlife Biologist Stephanie McLaughlin, M.S. on November 11, 2020 between the hours of 0900 and 1400 hours. Weather during the reconnaissance survey was foggy in the morning, eventually clearing in the afternoon, with temperatures ranging from 55 to 65 degrees Fahrenheit. A complete list of plant and animal species observed in the study area was prepared during the biological resources reconnaissance and is included in **Appendix C**. The project site was assessed to identify the habitat type(s) present and its potential to support special-status plant and wildlife species. The survey consisted of a pedestrian survey of the project site and the surrounding area.

Habitat Types/Vegetation Communities

There are two natural habitat types/vegetation communities on the site: developed and north coast coniferous forest. A list of all plant and animal species observed during the site reconnaissance and representative site photographs taken on November 11, 2020 are included in **Appendix C.**

Developed

Developed areas in the project site include existing facilities and access roads as well as habitat along the dirt access roads and at the proposed tank locations. These areas are all moderately disturbed and

are dominated by a mix of native and non-native species. Vegetation cover varies from sparse to moderate. Dominant shrubs include coyote bush (*Baccharis pilularis*), Himalayan blackberry (*Rubus armeniacus*), scotch broom (*Cytisus scoparius*), and hairy manzanita (*Arctostaphylos columbiana*). Herbaceous species consist of sweet vernal grass (*Anthoxanthum odoratum*), wild oats (*Avena fatua*), and dogtail grass (*Cynosurus echinatus*).

North Coast Coniferous Forest

This habitat is a tall dense, mixed needle-leaved evergreen forest in dense stands dominated by Douglas fir (*Pseudotsuga menziesii*) and interspersed with canyon live oak (*Quercus chrysolepis*), Pacific madrone (*Arbutus menziesii*), bigleaf maple (*Acer macrophyllum*), tanoak (*Notholithocarpus densiflorus*) and California bay (*Umbellularia californica*). Dominance by Douglas fir declines with age, but this may require centuries due to this species' extreme longevity. Site factors include well-drained, moist sites that experience summer fog but very little winter snowfall. Precipitation ranges from 50 to 160 inches, with less than 10 percent falling in summer. The understory ranges from sparse with dense leaf litter and small woody debris, to moderately shrub-dominated with hairy honeysuckle (*Lonicera involucrata*), western sword fem (*Polystichum munitum*), Scotch broom (*Cytisus scoparius*) and Himalayan blackberry (*Rubus armeniacus*).

All of the project elements occur within or adjacent to north coast coniferous forest, which generally occurs at the edges of the developed habitat. The spring source is located within north coast coniferous forest habitat. The spring is a subterranean feature that has been encased in a pond liner and outflows through a HDPE pipe. Due to land movement there is some seepage from the spring source onto the soil surface, creating a moist environment without producing any aquatic features.

Special Status Species Evaluation

Regulations pertaining to the protection of biological resources at the project site are summarized above. For the purposes of this discussion, special-status species are those that fall into one or more of the following categories, including those:

- Listed as endangered or threatened under the FESA (including candidates and species proposed for listing);
- Listed as endangered or threatened under the CESA (including candidates and species proposed for listing);
- Designated as rare, protected, or fully protected pursuant to California Fish and Game Code;
- Designated a Species of Special Concern (SSC) by the California Department of Fish and Wildlife (CDFW);
- Considered by CDFW to be a Watch List species with potential to become an SSC;
- Defined as rare or endangered under Section 15380 of the CEQA; or,
- Having a California Rare Plant Rank (CRPR) of 1A, 1B, 2A, 2B, or 3.

In order to evaluate special-status species and/or their habitats with the potential to occur in the project site and/or be impacted by the proposed project, HELIX obtained lists of special-status species known to occur and/or having the potential to occur in the proposed project site and vicinity from the USFWS (USFWS 2020), the California Native Plant Society (CNPS; CNPS 2021), and the California Natural Diversity Database (CNDDB; CDFW 2020). Attachment C to the biological resources report includes these lists of special-status plant and animal species occurring in the project region and Attachment D to the

biological resources report includes an evaluation of the potential for these species to occur in the project site; both attachments are included in **Appendix C** to this ISMND.

Special Status Plant Species

A total of 12 regionally occurring special-status plant species were identified during the database queries and desktop review. The project site provides suitable habitat for two special-status plant species: white-flowered rein orchid and coast fawn lily. These species are discussed below. Special-status species determined to have no potential to occur on the project site or that are not expected to occur in the project site and be impacted by the proposed project are included in **Appendix C** but are not discussed further in this section.

White-flowered Rein Orchid

Federal status – none
State status – none
Other status – CRPR 1B.2

Species Description

White-flowered rein orchid is a perennial herb that occurs in broadleaved upland forests, lower montane coniferous forests, and north coast coniferous forests, sometimes on serpentinite. This species is found in forest duff, on mossy banks, rock outcrops, and muskeg at elevations ranging from 98 – 4,298 feet above mean sea level. White-flowered rein orchid blooms from May-September (sometimes March) (CNPS 2021).

Survey History

No known surveys have been conducted within the project site for this species and the biological reconnaissance survey was conducted outside of the blooming season. There are four reported occurrences of white-flowered rein orchid on the Miranda US Geological Survey (USGS) quad. The closest reported occurrences are approximately 4,000 feet west of the site. All of the occurrences are west of the South Fork Eel River.

Habitat Suitability

Suitable habitat occurs within the north coast coniferous forest on the project site, likely restricted to the area around the spring site.

Coast Fawn Lily

Federal status – none
State status – none
Other status – CRPR 2B.2

Species Description

Coast fawn likely is a perennial bulbiferous herb found on mesic soils and streambanks in bogs and fens, broad-leafed upland forest, and north coast coniferous forest from 0 – 5,249 feet above mean sea level.

Coast fawn lily blooms March – July (occasionally August). Associated species include Douglas fir, tanoak, and Pacific madrone (CNPS 2021).

Survey History

No known surveys have been conducted within the project site for this species and the biological reconnaissance survey was conducted outside of the blooming season. There is one reported occurrence of coast fawn lily on the Miranda USGS quad. This occurrence is located approximately 2 miles north of the site in a streambank along Fish Creek. The area is in commercial timber production.

Habitat Suitability

Suitable habitat occurs within the north coast coniferous forest on the project site, likely restricted to the area around the spring site.

Special Status Animal Species

A total of 14 regionally-occurring special-status wildlife species were identified during the database searches and desktop review. There are no reported occurrences of special-status animal species on or immediately adjacent to the site. The site provides suitable habitat for one special-status wildlife species: Cooper's hawk, as well as habitat for other migratory birds and raptors. These species are discussed briefly below. In addition, although there is no habitat on the project site for either species, northern spotted owl and marbled murrelet are discussed due to the presence of reported occurrences within 0.25 mile of the project site (northern spotted owl) and designated Critical Habitat in the project site (marbled murrelet). The remaining special-status species determined to have no potential to occur on the project site or that are not expected to occur in the project site and be impacted by the proposed project (**Appendix C**) are not discussed further in this section.

Cooper's Hawk

Federal status – none
State status – CDFW watch list
Other status – none

Species Description

Cooper's hawk inhabits open woodlands or forest edges, where it can hunt birds in flight. Nests sites are mainly in riparian stands of deciduous trees, such as are found in canyon bottoms and flood plains, and in live oak trees.

Survey History

Cooper's hawk was not observed in the project site during the biological reconnaissance survey. There is one reported occurrence of Cooper's hawk on the Miranda quad; this reported occurrence is approximately 2 miles north of the site where this species was observed in 2005.

Habitat Suitability

North coast coniferous forest in the project site provides some suitable nesting habitat for Cooper's hawk. This species could also forage in the project site.

Northern Spotted Owl

Federal status – Threatened
State status – none
Other status – CDFW Species of Special Concern

Species Description

Northern spotted owl lives in old-growth coniferous forests and rocky canyons, preferring mature forests with large, old trees, multiple canopy layers, and downed woody debris. In the Sierra Nevada the spotted owl is found in Sierran mixed conifer forests at mid-elevations and ponderosa pine forests, blue oak-gray pine woodlands, and valley foothill riparian forests at lower elevations (Shuford and Gardali 2008). Spotted owls also inhabit old growth coastal coniferous forest. Suitable habitat for northern spotted owl consists of dense, multilayer, mature forest with greater than 70 percent canopy closure preferred for nesting and greater than 50 percent canopy closure preferred for foraging (Verner et al. 1992). Nests are placed in tree cavities, broken-topped trees, and platforms, such as abandoned raptor or squirrel nests. Adults do not build their own nests (Zeiner et al. 1990).

Survey History

No northern spotted owl or potential nests for this species were observed in the project site during the biological reconnaissance survey. There is a reported occurrence of northern spotted owl approximately 0.25 mile east of the project site where this species was observed nesting in 2000. The northern spotted owl activity center includes a nest sighting and a sighting of a pair of northern spotted owls.

Habitat Suitability

The north coast coniferous forest in the project site does not provide suitable nesting habitat for northern spotted owl. The project site lacks dense, mature, multi-layer old growth forest and is disturbed.

Marbled Murrelet

Federal status – Threatened
State status – Endangered
Other status – None

Species Description

This species is pelagic, except during nesting season when it uses old-growth, multi-layered canopied forests up to 50 miles inland from the coast. When nesting trees are not present, this species nests on the ground or amongst rocks. In California, nesting typically occurs in coastal redwood forest or Douglas fir forests (USFWS 2016).

Survey History

No marbled murrelet or potential nest sites for this species were observed in the project site during the biological reconnaissance survey. There are no reported occurrences of marbled murrelet on the Miranda USGS quad. The closest reported occurrence of marbled murrelet in the CNDDB is

approximately 7.5 miles northwest of the site along the southern boundary of Humboldt Redwoods State Park.

Habitat Suitability

The north coast coniferous forest in the project site does not provide suitable nesting habitat for marbled murrelet. The project site lacks dense, mature, multi-layer old growth forest and is disturbed. The very northern portion of the project site along Spring Canyon Road overlaps designated Critical Habitat for this species; however, the site lacks the primary constituent elements of critical habitat including old growth trees with the presence of deformities and/or large branches to use as a nesting platform.

Migratory Birds and Raptors

As noted above, migratory and non-game birds are protected during the nesting season by the California Fish and Game Code. The project site and immediate vicinity provide nesting and foraging habitat for a variety of native birds such as mourning dove (*Zenaida macroura*), black phoebe (*Sayornis nigricans*), and northern flicker (*Colaptes auratus*). Nests were not observed during surveys; however, the survey was conducted outside of the bird nesting season and a variety of migratory birds have the potential to nest in and adjacent to the site, in trees, shrubs and on the ground in vegetation.

Impact Analysis

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Less than significant with mitigation. Of the sensitive species known or thought to utilize the region around Phillipsville, the species determined to potentially utilize the site or immediately adjacent areas are the white-flowered rein orchid, coast fawn lily, Cooper's hawk, northern spotted owl, marbled murrelet, and other migratory birds and raptors. These organisms are discussed individually below.

White-flowered Rein Orchid

Although white-flowered rein orchid is not known to occur in the project site there is a potential that it could occur due to the presence of suitable habitat. If this plant species were to occur in the project site, project activities would have the potential to result in adverse impacts. Adverse impacts could occur if mechanical equipment or workers directly crushed, trampled, or uprooted sensitive plants and indirect impacts could occur through soil compaction, alteration of hydrology, and increased erosion and sedimentation resulting from ground disturbance. **Mitigation Measure BIO-01** would reduce potential impacts to this species to less than significant.

Coast Fawn Lily

Although coast fawn lily is not known to occur in the project site there is a potential that it could occur due to the presence of suitable habitat. If this plant species were to occur in the project site, project activities would have the potential to result in adverse impacts. Adverse impacts could occur if mechanical equipment or workers directly crushed, trampled, or uprooted sensitive plants and indirect impacts could occur through soil compaction, alteration of hydrology, and increased erosion and

sedimentation resulting from ground disturbance. **Mitigation Measure BIO-01** would reduce potential impacts to this species to less than significant.

Cooper's Hawk

Foraging hawks are highly mobile and would move away from any disturbance associated with the project activities and would not be affected. If Cooper's hawk were to nest in the project site, project activities such as grading or downed tree removal during the breeding season (February 1 through August 31) could result in injury or mortality of eggs and chicks directly through destruction or indirectly through forced nest abandonment due to noise and other disturbance. **Mitigation Measure BIO-02** would reduce potential impacts to this species to less than significant.

Northern Spotted Owl

No impacts to northern spotted owl are anticipated as a result of the proposed project. Suitable nesting habitat is not present in or adjacent to the project site. Project activities would not be expected to disrupt northern spotted owl activity centers east of the site due to the limited ground disturbance and nature of the activity. Pre-construction surveys will be conducted for migratory birds and raptors. If northern spotted owl is observed, coordination will be conducted with USFWS and CDFW to determine the appropriate nest buffer based on the location of the nest and the type of construction activity occurring within 0.25 mile of the nest. **Mitigation Measure BIO-02** would reduce potential impacts to this species to less than significant.

Marbled Murrelet

No impacts to marbled murrelet or designated Critical Habitat are anticipated as a result of the proposed project. Suitable nesting habitat is not present in or adjacent to the project site. No tree removal is anticipated to occur within designated Critical Habitat. Pre-construction surveys will be conducted for migratory birds and raptors. If marbled murrelet is observed, coordination will be conducted with USFWS and CDFW to determine the appropriate nest buffer based on the location of the nest and the type of construction activity occurring within proximity to the nest. **Mitigation Measure BIO-02** would reduce potential impacts to this species to less than significant.

Migratory Birds and Raptors

Project activities such as clearing and grubbing during the avian breeding season (February 1 through August 31) could result in injury or mortality of eggs and chicks directly through destruction or indirectly through forced nest abandonment due to noise and other disturbance. Needless destruction of nests, eggs, and chicks would be a violation of the Fish and Game Code and a significant impact. **Mitigation Measure BIO-02** would reduce potential impacts to these species to less than significant.

Therefore, the project would not have a substantial adverse effect on any sensitive species, and with implementation of **Mitigation Measures BIO-01** and **BIO-02**, any impacts would be less than significant.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Less than significant impact. No riparian habitat or other sensitive natural communities were identified during the biological reconnaissance survey. Any impacts would be less than significant.

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?

No impact. No jurisdictional wetlands were identified during the biological reconnaissance survey of the site. Though the area immediately adjacent to the spring is more moist than surrounding areas, it does not include any wetland vegetation or other wetland features. No impact to protected wetlands would occur.

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 activities would include upgrading water procurement, treatment, and distribution infrastructure within or immediately adjacent to its existing footprint. The amount of disturbed areas would not substantially increase and new infrastructure would not differ substantially from that which currently exists. Though construction activities may temporarily increase the amount of noise, movement, and other disturbance within portions of the project site, these impacts would be short term and temporary, and would abate once construction is completed. Thus, wildlife use of, and movement through, the site would not be substantially changed, and any impacts would be less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than significant impact. No removal of live trees is proposed as part of this project. The project would include upgrading existing infrastructure and would remain largely within the existing footprint of disturbance, and would not increase levels of service. The project would not conflict with any local policies or ordinances protecting biological resources, and any impacts would be less than significant.

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?

Less than significant impact. The proposed project would not alter or disturb a significant amount of habitat, and would focus disturbance mostly to existing footprints. Intensity of use would be maintained around current levels. The project would not conflict with an adopted local regional, or state habitat conservation plan, and any impacts would be less than significant.

Mitigation Measures

BIO-01 Special Status Plants.

Prior to any construction-related ground disturbance occurring in areas of suitable habitat for special-status plants, focused surveys shall be completed to determine the presence or absence of these species on the project site. The surveys shall be floristic in nature and shall be seasonally timed to coincide with the blooming period of these species (May to September; white-flowered rein orchid) and (March to July; coast fawn lily). If special-status species are not found during the focused surveys, then no further action is required.

- If special-status plants are documented on the site, a report shall be submitted to CNDDB to document the status of the species on the site. If the project is designed to avoid impacts to special-status plant individuals and habitat, no further mitigation for these species would be necessary.

- If special-status plants are documented on the site and project impacts to these species are anticipated, consultation with CDFW shall be conducted to develop a mitigation strategy. The proponent shall notify CDFW, providing a complete description of the location, size, and condition of the occurrence, and the extent of proposed direct and indirect impacts to it. The project proponent shall comply with any mitigation requirements imposed by CDFW. Mitigation requirements could include but are not limited to, development of a plan to relocate the special-status plants (seed) to a suitable location outside of the impact area and monitoring the relocated population to demonstrate transplant success or preservation of this species or its habitat at an on or offsite location.

BIO-02 Migratory Birds and Raptors.

If project activities such as vegetation removal activities commence during the avian breeding season (February 1 – August 31), a qualified biologist shall conduct a pre-construction nesting bird survey no more than 7 days prior to initiation of project activities. The survey area shall include suitable raptor nesting habitat within 500 feet of the project boundary (inaccessible areas outside of the project site can be surveyed from the site or from public roads using binoculars or spotting scopes). Pre-construction surveys are not required in areas where project activities have been continuous since prior to February 1, as determined by a qualified biologist. Areas that have been inactive for more than 14 days during the avian breeding season must be re-surveyed prior to resumption of project activities. If no active nests are identified, no further mitigation is required. If active nests are identified, the following measure shall be implemented:

- A suitable buffer (e.g., northern spotted owl and marbled murrelet – coordinate with USFWS and CDFW; 300 feet for common raptors; 100 feet for non-raptors) shall be established by a qualified biologist around active nests and no construction / decommissioning activities within the buffer shall be allowed until a qualified biologist has determined that the nest is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest, or the nest has failed). Encroachment into the buffer may occur at the discretion of a qualified biologist. Any encroachment into the buffer shall be monitored by a qualified biologist to determine whether nesting birds are being impacted.

Findings

a) The project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service. **Less than significant with mitigation.**

b) The project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service. **Less than significant.**

c) The 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. **No impact.**

d) The 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. **Less than significant impact.**

e) The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. **Less than significant impact.**

f) The project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. **Less than significant impact.**

7.5 CULTURAL RESOURCES

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c)	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

A Cultural Resource Investigation was prepared for the proposed project in February 2021 by HELIX Environmental Planning, Inc. Information in this section is summarized from the Cultural Resource Investigation, which is provided as **Appendix D** to this ISMND.

Regulatory Setting

Federal Regulations

National Environmental Policy Act

NEPA and its supporting federal regulations establish certain requirements that must be adhered to for any action "financed, assisted, conducted or approved by a federal agency." In making a decision on the issuance of federal grant monies or a permit or to conduct work on federal lands for components of the proposed action, the federally designated lead agency pursuant to NEPA is required to "determine whether the proposed action may significantly affect the quality of the human environment." NEPA requires the systematic evaluation of potential environmental impacts of a proposed action and alternative actions, the identification of adverse effects, and consultation with any federal agency that has jurisdiction by law or special expertise with respect to any environmental impact involved. With regard to cultural resources, NEPA states, "It is the continuing responsibility of the Federal Government to use all practicable means . . . to preserve important historic, cultural, and natural aspects of our national heritage." (42 USC 4331). The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places (NRHP), or may cause loss or destruction of significant scientific, cultural, or historical resources, must be considered (40 CFR 1508.27(b)8).

National Historic Preservation Act of 1966 (16 USC 470)

Enacted in 1966, the National Historic Preservation Act (NHPA) declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the NRHP, established the position of SHPO and provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out

the purposes of the NHPA, assisted Native American tribes in preserving their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

Section 106

Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in or eligible for inclusion in the NRHP, and that the ACHP must be afforded an opportunity to comment on such undertakings through a process outlined in 36 CFR Part 800. The Section 106 process involves the identification of significant historic and archaeological resources ("historic properties") within an area of potential effect (APE), the determination of whether the undertaking will cause an adverse effect on historic properties, and the resolution of those adverse effects through execution of a Memorandum of Agreement. In addition to the ACHP, interested members of the public—including individuals, organizations, and agencies (such as the California Office of Historic Preservation)—are provided with opportunities to participate in the process.

National Register of Historic Places

The NRHP was established by the NHPA of 1966 as "an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment" (36 CFR 60.2).

The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history.
- Criterion B: It is associated with the lives of persons who are significant in our past.
- Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

Cemeteries, birthplaces, graves of historic figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain conditions. In general, a resource must be at least 50 years old to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) sets provisions for the inadvertent discovery and/or intentional removal of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for

repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

American Indian Religious Freedom Act of 1978

The American Indian Religious Freedom Act of 1978 (AIRFA) was enacted to protect and preserve the traditional religious rights and cultural practices of Native Americans. These rights include, but are not limited to, access of sacred sites, freedom to worship through ceremonial and traditional rights and use, and possession of objects considered sacred. The AIRFA requires that federal agencies evaluate their actions and policies to determine if changes are needed to ensure that Native American religious rights and practices are not disrupted by agency practices. Such evaluations are made in consultation with native traditional religious leaders.

State Regulations

California Environmental Quality Act

Pursuant to CEQA, a historical resource is a resource listed in, or eligible for listing in, the California Register of Historical Resources (CRHR). In addition, resources included in a local register of historic resources, or identified as significant in a local survey conducted in accordance with state guidelines, are also considered historic resources under CEQA, unless a preponderance of the facts demonstrates otherwise. According to CEQA, the fact that a resource is not listed in, or determined eligible for listing in, the CRHR, or is not included in a local register or survey, shall not preclude a Lead Agency, as defined by CEQA, from determining that the resource may be a historic resource as defined in California Public Resources Code (PRC) Section 5024.1.7.

CEQA applies to archaeological resources when (1) the historic or prehistoric archaeological resource satisfies the definition of a historical resource, or (2) the historic or prehistoric archaeological resource satisfies the definition of a “unique archaeological resource.” A unique archaeological resource is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria (PRC § 21083.2(g)):

1. The archaeological resource contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
2. The archaeological resource has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. The archaeological resource is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is “an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state’s historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change” (PRC § 5024.1(a)). Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks (CHL) numbered 770 and higher, are

automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR.

A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria (PRC § 5024.1(c)):

> Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
> Criterion 2: It is associated with the lives of persons important in our past.
> Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
> Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Resources that have achieved significance within the past 50 years also may be eligible for inclusion in the CRHR, provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.

Native American Heritage Commission

Section 5097.91 of the PRC established the Native American Heritage Commission (NAHC), whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.9 of the PRC, a State policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines located on public property. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner.

Government Code Sections 6254(r) and 6254.10

These sections of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to "Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission." Section 6254.10 specifically exempts from disclosure requests for "records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the Native American Heritage Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency."

Health and Safety Code, Sections 7050 and 7052

Health and Safety Code, Section 7050.5 declares that, in the event of the discovery of human remains outside of a dedicated cemetery, all ground disturbance must cease and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

Penal Code, Section 662.5

Section 622.5 of the Penal Code provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands, but specifically excludes the landowner.

Environmental Setting

Area of Potential Effects

The APE is defined as the geographic area or areas within which a project may directly or indirectly cause alterations in the character or use of significant archaeological or architectural resources. The APE is influenced by the scale and nature of the project as well as by the types of cultural resources in the vicinity. For the purposes of this analysis, the project's primary APE is understood to be the area that would be subjected to ground disturbance during construction and implementation of the proposed project (**Figure 3**).

The APE for the proposed project measures approximately 5.4 acres and corresponds to the project area described above. The APE's vertical dimension is established by the trenching for the 8" fire suppression service pipeline, which would run down the center of an existing dirt road and is estimated to extend approximately 1-3' below the current ground service. Because the project would largely replace existing infrastructure or add new subsurface infrastructure, visual impacts are expected to be negligible and a separate APE to address secondary impacts was considered unnecessary.

Archival Records Search

On December 11, 2020, an archival records search in support of the proposed project was conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System, located at Sonoma State University. The records searches addressed all portions of the APE and a 0.5-mile radius around the APE (hereafter referred to as the study area). Sources of information included previous survey and cultural resources files; the National Register of Historic Places (NRHP); the CRHR; the Office of Historic Preservation (OHP) Archaeological Determinations of Eligibility; the OHP Directory of Properties in the Historic Property Data File; historical topographic maps; and historical aerial photographs.

The records search identified 16 cultural resource studies that have previously been conducted within the study area (**Table 1**).

Table 1. Previous Cultural Resource Studies Conducted within the Study Area

Report	Year	Author(s)	Title	Affiliation
S-000848	1976	Fredrickson, D. A.	A Summary of Knowledge of the Central and Northern California Coastal Zone and Offshore Areas, Vol. III, Socioeconomic Conditions, Chapter 7: Historical & Archaeological Resources	The Anthropology Laboratory, Sonoma State College; Winzler & Kelly Consulting Engineers
S-002458	1981	Ramiller, N., S.Ramiller, R. Werner, and S. Stewart	Overview of Prehistoric Archaeology for the Northwest Region, California Archaeological Sites Survey: Del Norte, Humboldt, Mendocino, Lake, Sonoma, Napa, Marin, Contra Costa, Alameda	Northwest Regional Office, California Archaeological Sites Survey, Anthropological Studies Center, Sonoma State University
S-007888	1973	Fredrickson, D. A.	Early Cultures of the North Coast Ranges, California.	University of California, Davis
S-008226	1986	Parkman, E. B.	Status of Archeological Resources in the Northern Region, California Department of Parks and Recreation	California Department of Parks & Recreation
S-011185	1988	Gmoser, G. J.	Boundary Development in Northwestern California, an Ecological Approach to Culture History	Sonoma State University
S-017442	1995	Sandelin, L.	Phase I Archaeological Study, Beebe, APN 214-051-01 & 214-041-01, Proposed Lot Line Adjustment, Humboldt County, California	Sandelin Archaeology and Forestry
S-020395	1998	Gillette, D. L.	PCNs of the Coast Ranges of California: Religious Expression or the Result of Quarrying?	California State University, Hayward
S-030204	2003	Gillette, D. L.	The Distribution and Antiquity of the California Pecked Curvilinear Nucleated (PCN) Rock Art Tradition.	University of California, Berkeley
S-038865	2011	Leach-Palm, L., P. Brady, P. Mikkelsen, L. Seil, D. Rice, B. Larson, J. Freeman, and J. Costello	Cultural Resources Inventory of Caltrans District 1 Rural Conventional Highways in Del Norte, Humboldt, Mendocino and Lake Counties, Contract No. 01A1056, Expenditure Authorization No. 01-453608	Far Western Anthropological Research Group; JRP Historical Consulting, LLC; Foothill Resources Ltd.
S-042152	2001	Collins, M. D.	Confidential Archaeological Addendum for Timber Operations on Non-Federal Lands in California Kahn; Phillipsville THP 1-01-49 HUM	James Able Forestry Consultants
S-043461	2008	Cohoon, B. C.	An Archaeological Survey Report for the Kahn Phillipsville 2008 Timber Harvesting Plan, Humboldt County, California	Ben Cohoon Logging and Forestry
S-044429	2012	Haney, J., and E. Dwyer	Archaeological Survey Report for a Proposed Bridge Upgrade/Replacement Project along State Route 254, Humboldt County, California	Caltrans District 3
S-044964	2008	Leach-Palm, L., W. R. Hildebrandt, and J. Meyer	Phase I Archaeological Survey of 262 Locations Planned for Metal Beam Guardrail Construction along State Route 101, Humboldt County, 01-HUM-101, PM 0.20-126.00 (KP 032-202.77), EA 01-464000	Far Western Anthropological Research Group, Inc.
S-045088	2007	Lasbury, T.	Final Mitigated Negative Declaration for the Phillipsville Community Services District	Phillipsville Community Services District
S-046715	2014	Cardiff, D., S. Thomas, and D. York	Historic Property Survey Report for Metal Beam Guardrail Repair and Replacement Project, Humboldt County, Var, Var 2014, E-FIS Project Number, 0112000274	Caltrans District 1

Report	Year	Author(s)	Title	Affiliation
S-046715	2014	Cardiff, D., S. Thomas, and D. York	Archaeological Survey Report for the HUM-VAR-MBGR Repair and Replacement Project 2014 01-HUM-VAR, Humboldt County, California, EA 01-46392	Caltrans District 1

One study directly investigated the majority of the current APE. Report S-045088, the Final Mitigated Negative Declaration for the PCSD, was completed in 2007 and addressed the entire alignment that contains the existing 3" pipeline and transmission line, as well as portions of Phillipsville. The study did not find any cultural resources within the current APE.

The other studies found during the records search are generally regional-scale academic and research studies or focused on areas to the west of the current APE. Report S-038865, completed in 2011, was a Cultural Resources Inventory of Caltrans District 1 Rural Conventional Highways in Del Norte, Humboldt, Mendocino and Lake Counties. That inventory resulted in the documentation of the only cultural resource that has previously been recorded within the study area (**Table 2**).

Table 2. Previously Documented Cultural Resources within the Study Area

Primary	Trinomial	Description	Year	Author(s)	Affiliation
P-12-003233	N/A.	Historic Highway	2011	Andrew Hope	Caltrans

Resource P-12-003233 represents SR 254 in Humboldt County, also known as Avenue of the Giants. The resource is a two-lane highway approximately 32 miles in length. Its 2011 documentation recommends that the resource is not eligible for listing in the NRHP or the CRHR. P-12-003233 intersects the western portion of the current study area but comes no closer than 600 feet to the APE.

Additional Historical Information

The 1922 Atlas of Humboldt County, California (Belcher Abstract & Title Co. 1922) indicates that the parcel containing the APE was owned at the time by John H. Mercer. Reviews of additional sources of information, including the California Inventory of Historic Resources, the Built Environment Resources Directory, Archaeological Determinations of Eligibility, and GLO Plat Maps, failed to yield any additional information about the history of the project area.

Native American Outreach

On December 21, 2020, HELIX requested that the NAHC conduct a search of their Sacred Lands File for the presence of Native American sacred sites or human remains in the vicinity of the proposed project area. A written response received from the NAHC on December 22, 2020, stated that the Sacred Lands File failed to indicate the presence of Native American cultural resources in the vicinity of the APE.

On December 28, 2020, HELIX sent letters to three Native American contacts that were recommended by the NAHC as potential sources of information related to cultural resources in the vicinity of the project area:

- Edward Bowie, Cultural Liaison, Bear River Band of Rohnerville Rancheria
- Erika Cooper, Tribal Historic Preservation Officer, Bear River Band of Rohnerville Rancheria

- Josefina Cortez, Chairwoman, Bear River Band of Rohnerville Rancheria

The letters advised the tribe and specific individuals of the proposed project and requested information regarding cultural resources in the immediate area, as well as any feedback or concerns related to the proposed project. As of the date of this report, one response has been received: Ms. Erika Cooper, Tribal Historic Preservation Officer of the Bear River Band of the Rohnerville Rancheria, replied via email on February 19, 2021. Ms. Cooper did not offer any comments or recommendations related to the proposed project, but requested a point of contact for the project's lead agency, clarification of the project's regulatory framework, and an update on the results of the records search. This requested information was provided to Ms. Cooper via email response on February 22, 2021. Revised Lead Agency information and the new point of contact was provided to Ms. Cooper on March 18, 2021. In a response received on the same date, Ms. Cooper requested an electronic copy of the Cultural Resources Assessment (**Appendix D**). This document was transmitted to her via email on March 18, 2021.

Documentation related to Native American coordination is included in **Appendix D** to this ISMND (HELIX 2021b).

Intensive Pedestrian Survey

On November 11, 2020, HELIX Staff Archaeologist Jentin Joe conducted a pedestrian survey to characterize any prehistoric or historic-era archaeological resources located within the APE. During the survey, the ground surface throughout the APE was examined for the presence of historic-era artifacts (e.g., metal, glass, ceramics), prehistoric artifacts (e.g., flaked stone tools, tool-making debris), and other features that might represent human activity that took place more than 50 years ago. A 20-foot buffer was also surveyed around all proposed project elements, and a 10-foot buffer was surveyed on either side of the dirt road where the 8" fire suppression service pipeline would run. Survey photographs are presented in **Appendix D**.

The topography of the project area can be roughly divided into two zones. The lower zone is a relatively flat plain adjacent to the South Fork Eel River and west of SR 254. This area has been improved, and contains residences, farm structures, agricultural crops, and trees. Soils in the lower zone consist of nonmarine fluvial terrace deposits that are uplifted remnants of the former Eel River channel and flood plain. The upper zone, located east of SR 254, exhibits slopes measuring from 18 to 34 degrees. Those slopes are moderately to heavily timbered and have a thick understory of smaller trees, shrubs, and vines that severely limited surface visibility during the survey. Soils in the upper zone are moderately lithified sedimentary deposits overlain by landslide deposits. Access roads and residential structures are present locally across these slopes, and former skid trails and landings can be observed in various locations (Bajada Geosciences 2020).

Landslides are present throughout the region and within the PCSD service area. Recent or active landslide deposits underlie most of the APE, including the spring and proposed tank and pump station locations. Bajada Geosciences (2020) determined that "the landslide underlying the spring and proposed tank site has geomorphology indicative of an earth flow and could be actively creeping on an annual and seasonal basis… the geomorphology of the landslide underlying the proposed pump station appears older, implying that the landslide is dormant."

The existing spring source collection system and associated pipe gallery and overflow tank are built into a hillside at the northeastern end of the APE. The spring is contained within a pond liner and clay fill soil

has been used for stabilization due to the high landslide risk in the area. The spring was accessed from the east by a heavily rutted dirt road off Rock Pit Lane, which features a large gravel staging area at its terminus.

The spring WTP, also near the northeastern end of the APE, consists of a gravel pad with three 3,000-gallon water storage tanks and an associated water treatment building. All proposed alterations to the spring WTP would remain within the current footprint of the WTP. The site is accessed via a steep gravel road off Spring Canyon Road that represents the alignment of the proposed 8" fire suppression service pipeline.

A 140,000-gallon water storage tank and associated infrastructure are located at the southern end of the APE, off Ascending Lane. The proposed booster pump station would be installed in a CMU block building in front of the water storage tank. An additional water storage tank is proposed to be installed on a site located off Spring Canyon Road. The potential tank site is located on a graded, gravel pad covered in a geotextile tarp, while the well house and associated infrastructure are located in Phillipsville on the east side of the Avenue of the Giants Highway.

The entirety of the APE was surveyed, but no prehistoric or historic-era artifacts or features were found.

Impact Analysis

The discussion below is based on the cultural report prepared by HELIX Environmental Planning, Inc. (HELIX 2021b), attached to this ISMND as **Appendix D**.

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less than significant with mitigation. The records search determined that one previous study has characterized the current APE. Report S-045088, the Final Mitigated Negative Declaration for the PCSD, was completed in 2007 and addressed the alignment that contains the existing 3-inch pipeline and transmission line and would contain the proposed 8-inch fire suppression service pipeline. That study did not find any cultural resources within the current APE.

The only resource previously documented within the study area is P-12-003233, which represents SR 254 (also known as Avenue of the Giants) in Humboldt County. In 2011 the highway was recommended ineligible for listing in both the NRHP and the CRHR. P-12-003233 intersects the western portion of the current study area but comes no closer than 600-feet to the APE.

A search of the Sacred Lands File by the NAHC did not indicate that sensitive Native American resources are located in the area. Requests for tribal information with the listed tribes resulted in correspondence with a single tribe (Bear River Band of Rohnerville Indians); they did not respond with specific information about the area. This consultation was for informational purposes only and was not intended to satisfy Assembly Bill (AB) 52 requirements. See Section 8.18 Tribal Cultural Resources for a discussion of consultation pursuant to AB 52.

No cultural resources were found during the survey and the majority of the APE is underlain by recent and/or active landslide deposits on steep slopes, suggesting that the likelihood of encountering intact

surficial or shallowly buried archaeological materials during project implementation is low. Given these findings the APE should be considered to have a low sensitivity for cultural resources at the grading and excavation depths planned for the proposed project. Because ground visibility in portions of the APE was poor during the survey, **Mitigation Measure CUL-01** would be implemented to minimize the potential for undiscovered historic properties or historical resources, if they exist, to be adversely affected during project implementation. The mitigation measure would reduce any impacts to less than significant.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less than significant with mitigation. The record search conducted at the NWIC did not indicate known human remains on the project site. Implementation of a standard cultural resource construction mitigation measure regarding inadvertent discovery, **Mitigation Measure CUL-02**, would reduce potential impacts to a level of less than significant.

Mitigation Measures

CUL-01 Inadvertent Discoveries of Cultural Resources.

In the event that cultural resources are exposed during ground-disturbing activities, construction activities should be halted in the immediate vicinity of the discovery. If the site cannot be avoided during the remainder of construction, an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards should then be retained to evaluate the find's eligibility for inclusion in the NRHP and/or CRHR. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted and should be discussed in consultation with the SWRCB.

CUL-02 Inadvertent Discoveries Human Remains.

Although there is no evidence to suggest the presence of human remains, their discovery is always a possibility during a project. If such an event were to occur, the specific procedures outlined by the NAHC, in accordance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code, would be followed:

1. All excavation activities within 60-feet of the remains will immediately stop, and the area will be protected with flagging or by posting a monitor or construction worker to ensure that no additional disturbance occurs.
2. The project owner or their authorized representative will contact the County Coroner.
3. The coroner will have two working days to examine the remains after being notified in accordance with HSC 7050.5. If the coroner determines that the remains are Native American and are not subject to the coroner's authority, the coroner will notify NAHC of the discovery within 24 hours.
4. NAHC will immediately notify the Most Likely Descendant (MLD), who will have 48 hours after being granted access to the location of the remains to inspect them and make recommendations for treatment of them. Work will be suspended in the area of the find until the senior archaeologist approves the proposed treatment of human remains.
5. If the coroner determines that the human remains are neither subject to the coroner's authority nor of Native American origin, then the senior archaeologist will determine mitigation measures appropriate to the discovery.

Findings

a) The project would not cause a substantial adverse change in the significance of a historical resource as defined in §15064.5. **Less than significant with mitigation.**

b) The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. **Less than significant with mitigation.**

c) The project would not disturb any human remains, including those interred outside of formal cemeteries. **Less than significant with mitigation.**

7.6 ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Environmental Setting

Electricity

California's electricity needs are satisfied by a variety of entities, including investor-owned utilities, publicly owned utilities, electric service providers and community choice aggregators. In 2019, the California power mix totaled 277,704 gigawatt hours. In-state generation accounted for 200,475 GWh, or 72 percent, of the state's power mix. The remaining electricity came from out-of-state imports (CEC 2021a). **Table 3** provides a summary of California's electricity sources as of 2019.

Table 3. California Electricity Sources 2019

Fuel Type	Percent of California Power
Coal	2.96%
Large Hydro	14.62%
Natural Gas	34.23%
Nuclear	8.98%
Oil	0.01%
Other (Petroleum Coke/Waste Heat)	0.15%
Renewables (excluding Large Hydro)	31.70%
Unspecified	7.34%

Source: CEC 2021a

Natural Gas

Natural gas provides the largest portion of the total in-state capacity and electricity generation in California, with nearly 45 percent of the natural gas burned in California used for electricity generation in a typical year. Much of the remainder was consumed in the residential, industrial, and commercial sectors for uses such as cooking, space heating, and as an alternative transportation fuel. In 2012, total

natural gas demand in California for industrial, residential, commercial, and electric power generation was 2,313 billion cubic feet per year (bcf/year), up from 2,196 bcf/year in 2010 (CEC 2021b).

Transportation Fuels

Transportation accounts for a major portion of California's energy budget. Automobiles and trucks consume gasoline and diesel fuel, which are nonrenewable energy products derived from crude oil. Gasoline is the most used transportation fuel in California, with 97 percent of all gasoline being consumed by light-duty cars, pickup trucks, and sport utility vehicles. In 2015, 15.1 billion gallons of gasoline were sold in California (CEC 2021c). Diesel fuel is the second most consumed fuel in California, used by heavy-duty trucks, delivery vehicles, buses, trains, ships, boats, and farm and construction equipment. In 2015, 4.2 billion gallons of diesel were sold in California (CEC 2021d).

Regulatory Framework

State Regulations

California Building Standards Code (California Code of Regulations, Title 24)

The 2019 Building Energy Efficiency Standards, comprising Title 24, Parts 1 and 6, of the California Code of Regulations, is mandatory statewide. Local government agencies may adopt and enforce energy efficiency standards for newly constructed buildings, additions, alterations, and repairs provided the California Energy Commission finds that the standards will require buildings to consume no more energy than permitted by Title 24, Part 6. Such local standards may include adopting the requirements of Title 24, Part 6 before their effective date, requiring additional energy conservation measures, or setting stricter energy budgets.

Local Regulations

In 2003, the California Public Utilities Commission, the California Energy Commission, and the California Power Authority adopted an Energy Action Plan to meet California's electricity and natural gas needs. The plan was revised and updated in 2005 and again in 2008. The primary objectives of the plan are to invest in energy efficiency, renewable resources, and a clean conventional electricity supply. Senate Bill (SB) 100, passed in 2018, sets in place a goal for to produce 50 percent renewable energy by 2026, 60 percent renewable energy by 2030, and 100 percent renewable energy by 2045 within the California electricity grid. As of 2019, renewable energy sources, including biomass, geothermal, small hydrologic, solar, and wind, accounted for 31.70 percent of California's power mix[6].

Proposed Project

The spring WTP is currently powered by an existing connection with PG&E, but has no standby power for use during power outages. A trailer mounted 10 kw generator would be installed as part of the proposed project for use during power outages. The well WTP is currently powered by an existing connection with PG&E, and maintains a pad-mounted generator for use during power outages. Chlorine pumps in both WTPs would have UPS batteries to provide continuous power for chlorination between

[6] California Energy Commission. 2021. https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2019-total-system-electric-generation. Accessed on February 16, 2021.

loss of electrical service and generator power switch over. The proposed booster pump would be provided electrical service from an existing PG&E pole. The booster pump station would also be provided with a new 85 kw standby generator for use during times of power outage.

Impact Analysis

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less than significant impact. As discussed above, 100 percent of electricity used during normal operations is provided by connections with PG&E. Additionally, the new booster pump would be connected to an existing PG&E service pole. A backup generator for the well and well WTP currently exists, and two new backup generators would be installed for the spring WTP and the booster pump. The use of backup generators would be limited to times of power outages. The only regular increase in power consumption would be the operation of the booster pump; implementation of the proposed project would not result in a significant increase in power consumption in the context of the area. The proposed project would be constructed to modern building standards and would meet, at a minimum, the requirements of Title 24.11, 2019 California Green Building Standards Code or the Building Standards Code in effect at the time of building design. Impacts would be less than significant for a) and b).

Findings

a) The project would not 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.**

b) The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency: **Less than significant impact**.

7.7 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
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 off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
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?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☒	☐
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Environmental Setting

A Preliminary Geotechnical Report (Bajada Geosciences 2020) was prepared for this project and is included as Appendix D of the Preliminary Engineering Report attached to this document as **Appendix B**.

Geology

The project site is located in the Coast Ranges Geologic/Geomorphic Province of Northern California. The Coast Ranges province consists of an approximately 50-mile-wide range of mountains extending from Santa Barbara County approximately 400 miles northward into Shasta and Humboldt Counties

(Hinds 1952). It is bounded to the north by the Klamath Mountains province, to the south by the Transverse Ranges province, to the east by the Great Valley province, and to the west by the Pacific Ocean. The Coast Ranges province is chiefly composed of late Jurassic to recent formations and their topography is controlled by regional and local faults and folds. Along the coast, the Coast Ranges are stepped with a series of marine terraces representing uplifted wave-cut platforms and by emergent nonmarine terraces along rivers and drainages.

The lower and relatively flatter portions of the project area are situated on nonmarine fluvial terrace deposits situated adjacent to the Eel River. These terraces are uplifted remnants of the former Eel River channel and flood plain. Terrace deposits consist predominately of silty sand to clayey sand with lesser amounts of sandy silt, and clay.

The upper portions of the project area are situated on moderately lithified sedimentary deposits of the Paleocene to late Eocene Yager Terrane (Dibblee & Minch 2008; Fraticelli et al. 2012; Haydon 2014). The sediments within the Yager Terrane consist of sheared argillite, interbedded sandstone, and conglomerate. Overlying the Yager Terrane are landslide deposits. Relatively thin sequences of artificial fill are present within the project area.

The project site and entire Northern California Region are located in a seismically active area. According to California Geological Survey (CGS) data, a small series of certain and approximately located Quaternary faults run on a northwest to southeast orientation, passing directly south of the project site (CGS 2020). The nearest of these faults runs approximately along the South Fork Eel River channel for a short distance just south/southwest of Phillipsville. The nearest historically active fault is a certain and concealed section of the San Andreas fault, the last known activity of which occurred in 1906. This fault line runs roughly north to south for a short distance along the coast approximately 18 miles southwest of the project site. According to Humboldt County GIS data, the project site itself is not within an Alquist-Priolo earthquake fault zone (where the State of California anticipates potential surface rupture). According to Humboldt County Web GIS data (Humboldt County 2020), the project site has a Relative Slope Stability Classification of 2 which is considered “Moderate Instability.” There are signs of potential landslide activity in the project area.

Soils

Based on a review of NRCS Web Soil Survey, soils on the project site are mapped as:

- Map Unit 187—Pepperwood-Shivelyflat complex, 0 to 2 percent slopes
- Map Unit 571—Sproulish-Canoecreek-Redwohly complex, 30 to 50 percent slopes
- Map Unit 575—Canoecreek-Sproulish-Redwohly complex, 50 to 75 percent slopes, warm
- Map Unit 663—Yorknorth-Windynip complex, 15 to 50 percent slopes
- Map Unit 5508—Canoecreek-Coyoterock-Sproulish complex, 15 to 50 percent slopes

Impact Analysis

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

    i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?

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 and underground utilities.

There are no Alquist-Priolo Fault Zones within the project area. For purposes of the Alquist-Priolo Act, an active fault is one that has ruptured in the last 11,000 years. Although a fault segment of an unnamed Quaternary-age fault zone traverses the are just south/southwest of project site (CGS 2020), it is not considered an active fault. Surface rupture is unlikely. The impact of surface rupture or other seismic-related movement at the project site would be reduced as new construction projects must comply with the California Building Code (CBC) requirements and have geotechnical/soils reports prepared prior to obtaining grading or building permits from the Humboldt County Building Division. With implementation of the proposed recommendations in the geotechnical/soils report and compliance with the CBC, impacts would be less than significant.

    ii. Strong seismic ground shaking?

Less than significant impact. Earthquakes on active faults in the region have the capacity to produce a range of ground shaking intensities in the project area. Ground shaking may affect areas hundreds of miles distant from an earthquake's epicenter. Ground motion during an earthquake is described by the parameters of acceleration and velocity as well as the duration of the shaking. Because the project site is located within a seismically active area, some degree of ground motion resulting from seismic activity in the region is expected during the long-term operation of the project.

The State of California provides minimum standards for building design through the CBC (California Code of Regulations Title 24). Where no other building codes apply, CBC Chapter 29 regulates excavation, foundations, and retaining walls. The CBC applies to building design and construction in the State and is based on the federal Uniform Building Code (UBC) used widely throughout the country. The CBC has been modified for California conditions with numerous more detailed and/or more stringent regulations. Specific minimum seismic safety and structural design requirements are set forth in CBC Chapter 16. The Code identifies seismic factors that must be considered in structural design. Further, no structures designed for permanent occupancy are proposed as part of this project. With implementation of the proposed recommendations in the soils report and compliance with the CBC, impacts would be less than significant.

iii. Seismic-related ground failure, including liquefaction?

Less than significant impact. 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.

According to Bajada Geosciences (2020), the potential for liquefaction to occur in soils or rock materials underlying the proposed tank and pump station is anticipated to be low, but should be confirmed. If shallow groundwater and loose granular soils are found to be present beneath the spring and proposed tank site, then the potential for liquefaction, and especially lateral spreading of those soils, could exist. Prior to construction of the tanks, explorations should be performed to evaluate the underlying soil types and consistencies, and to estimate the depth to groundwater so that liquefaction evaluations can be performed.

The impact of seismic-related ground shaking on the project site would be reduced as new construction projects must comply with the CBC requirements and have soils reports prepared prior to obtaining grading or building permits from the Humboldt County Building Division. With implementation of the proposed recommendations in the geotechnical report and compliance with the CBC, impacts would be less than significant.

iv. Landslides?

Less than significant impact. According to Bajada Geosciences (2020), landslide deposits underlie the spring and proposed tank and pump station locations. The landslide underlying the spring and proposed tank site has geomorphology indicative of an earth flow and could be actively creeping on an annual and seasonal basis. That landslide could become reactivated during a seismic event. Because of the location of the spring and the CSD subscribers on the hills above Phillipsville, there may be no alternative for construction of a new tank other than at the identified location. Prior to construction, subsurface exploration and slope stability evaluations would be performed to evaluate whether the site is stable under static and seismic forces. The tank site would also be monitored prior to construction to determine if movement is occurring and to help quantify both movement and deformation rates of the proposed tank site. The geomorphology of the landslide underlying the proposed pump station appears older, implying that the landslide is dormant. The existing tank next to where the pump station is proposed was constructed over ten years ago and appears to have performed well. Bajada Geosciences (2020) states that the site is likely stable and suitable for construction of the pump station, but notes that slope stability explorations, together with appropriate subsurface exploration, should be performed prior to construction to confirm site stability under static and seismic forces. The risk of loss, injury, or death involving landslides associated with construction and operation of the proposed project would be less than significant with implementation of proposed recommendations in the soils/geotechnical report and compliance with the CBC.

b) Result in substantial soil erosion or the loss of topsoil?

Less than significant impact. The project would be limited to upgrading infrastructure within or immediately adjacent to its existing footprint. Soil disturbance would be limited to small areas for a short duration during construction. The project would disturb slightly more than 1 acre of soil, so a Storm Water Pollution Prevention Plan (SWPPP) would be required. As outlined in the SWPPP, staff and

contractors would utilize best management practices (BMP), including covering exposed soil, limiting soil disturbance to the minimum area necessary, limiting or halting work during inclement weather, and utilizing wattles, water bars, and other erosion control measures where appropriate. The project would not result in the addition of significantly more impervious surfaces than currently exists.

The drainage lines for the upper zone tank site currently discharge to a location near the edge of the project site. Future tank drains and overflow would discharge in a similar fashion as to baseline conditions per DDW's recommendation. No drainage swales are warranted as runoff rates would not significantly differ from those experienced under baseline conditions. The only grading proposed as part of the project would include any minor alterations necessary to accommodate new or upgraded features, such as the new upper zone storage tanks or booster pump, and the immediate area surrounding the spring to ensure that any surface runoff drains away from the spring. Impacts would be less than significant.

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 off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less than significant impact. See a)iii. above for a discussion of liquefaction potential, and a)iv. above for a discussion of landslide potential. Bajada Geosciences (2020) stated that, during further site geotechnical exploration, if shallow groundwater and loose granular soils were found beneath the spring and/or tank site, then the potential for lateral spreading of those soils could exist. That report did not find that subsidence or collapse were significant concerns at the project site. The project applicant would be required to have a soils report prepared prior to receiving grading and/or building permits from the Humboldt County Building Division and implement all site improvement recommendations. Therefore, with implementation of the recommendations from the soils report, impacts would be less than significant.

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

Less than significant impact. Expansive soils possess a "shrink-swell" characteristic. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying. Structural damage may occur over a long period of time due to expansive soils, usually the result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils.

The soils underlying areas of new or upgraded construction on the project site have low and moderate shrink-swell potential (Bajada Geosciences 2020). The project improvements would not be located on expansive soils creating substantial risks to life or property. Therefore, with implementation of the recommendations from the geotechnical report, impacts would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Less than significant impact. The project would not include the construction of any septic tanks or alternative wastewater disposal systems; the proposed project deals only with water supply. The only project component involving any kind of water disposal would be a small drainage swale to drain the

upper tanks if needed, but this water would be treated and would not be considered wastewater. Any impacts would be less than significant.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than significant impact. The proposed project is not located in an area considered likely to have paleontological resources present. Previous disturbance from water infrastructure installation has taken place at the project site. Fossils of plants, animals, or other organisms of paleontological significance have not been discovered within the project area. Disturbance would be limited to either within or immediately adjacent to the footprint of the existing infrastructure. In this context, the project would not result in significant impacts to paleontological resources or unique geologic features.

Findings

a) i) The project would not directly or indirectly expose people or structures to 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 Divisions of Mines and Geology Special Publication 42: **Less than significant impact.**

a) ii) The project would not directly or indirectly expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking: **Less than significant impact.**

a) iii) The project would not directly or indirectly expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction: **Less than significant impact.**

a) iv) The project would not directly or indirectly expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides: **Less than significant impact.**

b) The project would not result in substantial soil erosion or the loss of topsoil; industry standard BMPs would be identified in the SWPPP prepared by the selected contractor and posted on the project site: **Less than significant impact.**

c) The 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: **Less than significant impact.**

d) The project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property: **Less than significant impact.**

e) The project would not have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water: **Less than significant impact**.

f) The project is not likely to directly or indirectly destroy a unique paleontological resource or site or unique geological feature: **Less than significant impact**.

7.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Environmental Setting

Global climate change refers to changes in average climatic conditions on Earth including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by atmospheric gases. These gases are commonly referred to as greenhouse gasses (GHG) because they function like a greenhouse by letting sunlight in but preventing heat from escaping, thus warming the Earth's atmosphere.

GHGs are emitted by natural processes and human (anthropogenic) activities. Anthropogenic GHG emissions are primarily associated with: the burning of fossil fuels during motorized transport; electricity generation; natural gas consumption; industrial activity; manufacturing; and other activities such as deforestation, agricultural activity, and solid waste decomposition.

The GHGs defined under California's AB 32, described below, include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6). Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Estimates of GHG emissions are commonly presented in carbon dioxide equivalents (CO_2e), which weigh each gas by its global warming potential (GWP). Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted. GHG emissions quantities in this analysis are presented in metric tons (MT) of CO_2e. For consistency with United Nations Standards, modeling and reporting of GHGs in California and the US use the GWPs defined in the Intergovernmental Panel on Climate Change's (IPCC) Fourth Assessment Report (IPCC 2007), as shown in **Table 4**.

Table 4. Global Warming Potential and Atmospheric Lifetimes

Greenhouse Gas	Atmospheric Lifetime (years)	GWP
Carbon Dioxide (CO_2)	50-200	1
Methane (CH_4)	12	25
Nitrous Oxide (N_2O)	114	298
HFC-134a	14	1,430
PFC: Tetraflouromethane (CF_4)	50,000	7,390
PFC: Hexafluoroethane (C_2F_6)	10,000	12,200
Sulfur Hexafluoride (SF_6)	3,200	22,800

Source: IPCC 2007.
HFC: hydrofluorocarbon; PFC: perfluorocarbon

Regulatory Setting

The primary GHG reduction legislation and plans (applicable to the project) at the State, regional, and local levels are described below. Implementation of California's GHG reduction mandates is primarily under the authority of the California Air Resources Board (CARB) at the state level, NCUAQMD at the regional level, and the County at the local level.

Executive Order S-3-05

On June 1, 2005, Executive Order (EO) S-3-05 proclaimed that California is vulnerable to climate change impacts. It declared that increased temperatures could reduce snowpack in the Sierra Nevada, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To avoid or reduce climate change impacts, EO S-3-05 called for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. Executive Orders are not laws and can only provide the governor's direction to state agencies to act within their authority to reinforce existing laws.

Assembly Bill 32 – Global Warming Solutions Act of 2006

The California Global Warming Solutions Act of 2006, widely known as AB 32, requires that CARB develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB is directed by AB 32 to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and most cost-effective GHG emission reductions.

Executive Order B-30-15

On April 29, 2015, EO B-30-15 established a California GHG emission reduction target of 40 percent below 1990 levels by 2030. The EO aligned California's GHG emission reduction targets with those of leading international governments, including the European Union. California was on track to meet or exceed the target of reducing GHGs emissions to 1990 levels by 2020, as established in AB 32; this has not yet been officially confirmed, as 2020 data have not yet been fully inventoried. California's new

emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the goal established by EO S-3-05 of reducing emissions 80 percent under 1990 levels by 2050.

Senate Bill 32

Signed into law by Governor Brown on September 8, 2016, SB 32 (Amendments to the California Global Warming Solutions Action of 2006) extended California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EO B-30-15 of 80 percent below 1990 emissions levels by 2050.

California Air Resources Board

On December 11, 2008, CARB adopted the Climate Change Scoping Plan (Scoping Plan) as directed by AB 32. The Scoping Plan proposed a set of actions designed to reduce overall GHG emissions in California to the levels required by AB 32. Measures applicable to development projects include those related to energy-efficiency building and appliance standards, the use of renewable sources for electricity generation, regional transportation targets, and green building strategy. Relative to transportation, the Scoping Plan includes nine measures or recommended actions related to reducing vehicle miles traveled (VMT) and vehicle GHGs through fuel and efficiency measures. These measures would be implemented statewide rather than on a project-by-project basis (CARB 2008).

In response to EO B-30-15 and SB 32, all state agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue driving down emissions (CARB 2015). In December 2017, CARB adopted the 2017 Climate Change Scoping Plan Update, the Strategy for Achieving California's 2030 Greenhouse Gas Target, to reflect the 2030 target set by EO B 30 15 and codified by SB 32 (CARB 2017).

Humboldt County

The County of Humboldt completed a draft Climate Action Plan for their General Plan Update in January 2012 (Humboldt County 2012). The plan contained GHG reduction strategies designed to achieve the goal of limiting greenhouse gas emissions to 1990 emissions levels by 2020. The NCUAQMD and Humboldt County have not adopted any thresholds of significance for measuring the impact of GHG emissions generated by a proposed project.

Impact Analysis

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than significant impact. This section includes a qualitative discussion of potential GHG/climate change impacts with an emphasis on project features which would reduce construction and operational GHG emissions (see discussion under subsection b) below).

Construction

Construction GHG emissions are generated by vehicle engine exhaust from construction equipment, on-road hauling trucks, vendor trips, and worker commuting trips. The proposed project is relatively small, and construction would be short term (less than one year). All construction equipment and commercial trucks would be maintained to meet current emissions standards as required by the CARB. Based on the size of the project and the short duration of construction activities, impacts associated with GHG emissions generated from construction would be less than significant.

Operation

The NCUAQMD and Humboldt County have not adopted any thresholds of significance for measuring the impact of GHG emissions generated by a proposed project. GHG emissions sources during operation would include vehicle traffic from workers, deliveries, and maintenance, and operation of the backup generators during times of power failure. The anticipated average daily trips would be up to 4 (2 in/2 out) on weekdays during normal project operation. This may be an overestimate, since only two part time employees are typically involved in day-to-day operations, and both employees would not necessarily travel to and from work on each weekday. The current level of employment and hours (i.e., those under existing conditions) would be maintained with implementation of the proposed project. The number of vehicle trips is not considered substantial and GHG emissions would be less than significant.

Power for the proposed project would be provided by existing PG&E connections. Only generators operated during times of power failure and required vehicle trips for employee commuting and maintenance would generate GHG emissions on site during operation. These would generally be at similar levels to those under existing conditions. The proposed project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

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 proposed project was evaluated against the following applicable plans, policies, and regulations:

1) Humboldt County Draft Climate Action Plan

2) NCUAQMD Particulate Matter Attainment Plan

Humboldt County Draft Climate Action Plan

The County's 2012 Draft Climate Action Plan contains strategies for reducing greenhouse gas emissions. This project, as proposed, is consistent with the following GHG reduction strategies listed in the County of Humboldt Climate Action Plan:

a) Foster land use intensity near, along with connectivity to, retail and employment centers and services to reduce vehicle miles traveled and increase the efficiency of delivery services through adoption and implementation of focused growth principles and policies.

The project setting consists of a small rural community. The project would help maintain community integrity and maintain the community as a desirable place to live by ensuring reliable access to clean

and safe water and by providing additional protection from fire hazards. The workforce during construction is anticipated to live locally in southern Humboldt County and commute to and from the site. During operation, only two part-time, local employees would be required, which is the same level of employment currently utilized to maintain the existing infrastructure. Vehicle miles traveled would slightly increase during construction and return to baseline conditions following construction.

b) Conserve natural lands for carbon sequestration.

The proposed improvements would be within or immediately adjacent to the existing footprint of the water procurement and distribution infrastructure. No removal of live trees is proposed and no conversion of timberland would occur. Installation of water supplies for firefighting would help to protect adjacent forested lands from wildfire threat.

c) Reduce length and frequency of vehicle trips.

See response to strategy a), above.

d) Promote the revitalization of communities in transition due to the decline of resource-based industries.

The project would remediate existing issues with water quality and reliability, and would provide additional fire protection in a wildland urban interface) area. These improvements would enhance the quality of life and safety in the community of Phillipsville.

e) Ensure that land use decisions conserve, enhance, and manage water resources on a sustainable basis to assure sufficient clean water for beneficial uses and future generations.

The proposed project would enhance existing infrastructure related to water procurement, treatment, and distribution. It would be sufficient to maintain existing demand sustainably and would improve the reliability and safety of the system.

NCUAQMD Particulate Matter Attainment Plan

As described under subsection a) in Section 8.3 – *Air Quality*, the proposed project incorporates control measures consistent with the goals included in the Attainment Plan. The goals include: (1) transportation, (2) land use, and (3) burning. The proposed project would not obstruct implementation of the NCUAQMD Attainment Plan for PM_{10}.

Therefore, the proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases, and impacts would be less than significant.

Findings

a) The project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment: **Less than significant impact**.

b) The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases: **Less than significant impact**.

7.9 HAZARDS AND HAZARDOUS MATERIALS

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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 area?	☐	☐	☐	☒
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Environmental Setting

Hazardous materials and hazardous wastes are subject to extensive federal, state, and local regulations to protect public health and the environment. These regulations provide definitions of hazardous materials; establish reporting requirements; set guidelines for handling, storage, transport, and disposal of hazardous wastes; and require health and safety provisions for workers and the public. The major federal, state, and regional agencies enforcing these regulations are USEPA and the Occupational Safety and Health Administration (OSHA); California Department of Toxic Substances Control (DTSC); California Department of Industrial Relations, California Division of Occupational Safety and Health (Cal/OSHA); California Governor's Office of Emergency Services (Cal OES); and NCUAQMD.

The Humboldt County Department of Environmental Health serves as the local Certified Unified Program Agency (CUPA). The CUPA is responsible for collecting and disseminating hazardous materials

information. If the facility has a maximum quantity on-site at any one time in excess of 55 gallons, then the facility must complete a Business Plan to the satisfaction of the CUPA. This information can then be made available to first responders or members of the public.

The site is not shown as containing hazardous materials or being involved in any cleanup or monitoring programs. The DTSC EnviroStor mapper indicated no cleanup or monitoring programs on the site or in the area (DTSC 2020). The State Water Resource Control Board Geotracker indicated the presence of one site in the vicinity of the project. That site was a cleanup of a gasoline spill; that case has been completed and closed since 2003 (WRCB 2020). The location of that site is 2714 State Route 254, Phillipsville, CA 95559. The project area lies generally to the north and east of that site.

The nearest schools to the project site are Miranda Junior High School and South Fork High School of the Southern Humboldt Unified School District. They are located adjacent to each other, approximately 3.9 miles northwest of the project site in Miranda.

The nearest airport to the site is the Garberville Airport, located approximately 11.4 miles to the south.

According to Humboldt County Web GIS data, the project site is within a wildland Fire Hazard Severity Zones of “Moderate” and “High” (Humboldt County 2020). The site is located within a state responsibility area (BOF 2020).

Hazardous materials expected to be used during project construction and operations include fuels and lubricants for construction equipment, diesel fuel for the trailer mounted and standby generators, and small amounts of cleaners, solvents, lubricants, paints, and other materials associated with operations and maintenance.

A chlorine contact pipeline would be installed between the spring WTP and the storage tanks to ensure adequate chlorine contact time. The current disinfection process uses a peristaltic pump for sodium hypochlorite injection. Chemical is stored inside the spring WTP building in a 55-gallon solution tank. The well WTP’s existing 55-gallon sodium hypochlorite storage containers and mixing tank would be relocated into a secondary containment shed located on a concrete pad adjacent to the well water treatment plant. The existing chemical shed would be demolished. Two new chlorine injection pumps would be provided, one duty and one standby. These would be wall-mounted in the well WTP.

Although no hazardous waste is expected to be generated, if hazardous waste were generated, it would be labeled as such, stored in a secure storage area that included secondary containment, then disposed of at an approved hazardous waste collection site.

Impact Analysis

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than significant impact. The proposed project would involve improvements to existing water procurement, treatment, and distribution infrastructure. Hazardous materials associated with construction include fuels, lubricants, and paint. Hazardous materials associated with the proposed

operation include diesel, lubricants, paint, solvents, and sodium hypochlorite. Sodium hypochlorite would be used for water treatment at both WTPs at approximately the same rates used in the existing operating conditions. The existing generator, proposed pad mounted generator, and proposed trailer mounted generator are only expected to be used during power outages, so fuel use would be low. All chemicals for water treatment would be located in a locked storage room and contained within water tight, locked and labeled containers in accordance with manufacturer's instructions. Secondary containment would be provided for sodium hypochlorite stored near the well WTP, as no secondary containment currently exists. Application rates would be tracked and reported with the end of the year monitoring report. All other hazardous materials would be used occasionally and in small amounts as required for routine maintenance and cleaning. Employees responsible for the application of these products would be trained to handle, mix, apply and dispose of the products with the proper safety equipment in accordance with the manufacturer's recommendations. Material Safety Data Sheets for any hazardous materials used onsite would be available for review by employees, visitors, and first responders.

Hazardous chemicals would be purchased from licensed vendors and transported/shipped to the project site in accordance with all federal, state, and local regulations for the transport of hazardous materials.

With appropriate storage, handling, and application practices that comply with the requirements of Humboldt County, it is not anticipated that the use of these materials at the facility would not pose a significant hazard. Use of hazardous materials is not expected to change significantly relative to existing conditions. 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, or through reasonably foreseeable accidental releases, and impacts would be less than significant for a) and b).

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No impact. There are no schools located within one-quarter mile of the project site. The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. No impact would occur.

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 project site is not included on a list of hazardous materials sites reporting to the DTSC or SWRCB; one issue found near the project site was minor and has been resolved for nearly two decades. Because there are no hazardous materials concerns currently at the project site, implementation of the proposed project would not create a significant hazard to the public or the environment as a result. No impact would occur.

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 area?

No impact. The project site is not located within an airport land use plan area. The site is approximately 11.4 miles north of the nearest airport. The proposed buildings would comply with Part 77 of the Code of Federal Regulations; Safe, Efficient Use, and Preservation of the Navigable Airspace, which limits the

allowable height of all structures within the airport runway approaches. The project does not propose to construct a building greater than 200 feet tall. Therefore, the project applicant would not need to notify the Federal Aviation Authority, and no impact would occur.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than significant impact. The project would comply with the requirements of the County Building Code and CAL FIRE regulations including those regarding emergency vehicle access, turnarounds, and defensible space. Most of the project site is accessible by via SR 254 and connected surface roads. Though the spring and its associated infrastructure would be accessed by a one mile unpaved road, this road would not be used for evacuation since it does not provide access to any occupied structures. The project is located within the Avenue of the Giants Wildfire Planning Unit of Humboldt County.[7] Evacuation routes would vary based on the nature and location of the hazard, as well as predicted weather, traffic, and needs of first responders. Potential evacuation routes from the project area include following US 101 or SR 254 south toward Garberville or north toward Fortuna. The project site is located in close vicinity of one fire station and is readily accessible from two others (see Section 8.15), and is located immediately adjacent to two suitable evacuation routes. The most recent Humboldt County Emergency Operations Plan was reviewed during the drafting of this document, and none of its provisions were found to be in conflict with the proposed action. Therefore, the proposed project would not impair the implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan. Potential impacts would be less than significant, and no mitigation would be necessary.

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. According to Humboldt County GIS data, the project site is Fire Hazard Severity Zones of “Moderate” and “High.” The site is located within an State Responsibility Area (SRA). The proposed project would comply with all CAL FIRE SRA requirements including those for emergency vehicle access, turnarounds, and defensible space. Additionally, by adding water supply for fire suppression in an area where no hydrants currently exist, the project would improve the capacity of existing agencies to fight fire in the upper and middle zones of the project area. The project would maintain current levels of service, would not be growth inducing, and would not create any new residences or occupied structures in an area susceptible to wildfire. Impacts would be less than significant and no mitigation would be necessary. See also the discussion of wildfire in section 8.20 of this document.

Findings

a) The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials: **Less than significant impact**.

[7] Humboldt County CWPP Fire Planning Units Map, 2018. Accessed February 16, 2021 from https://humboldtgov.org/DocumentCenter/View/84360/Fire-Planning-Units-map

b) The 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: **Less than significant impact**.

c) The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school: **No impact**.

d) The project would not be located on a site which is included on a list of hazardous materials sites complied 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**.

e) The project would not, 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, result in a safety hazard for people residing or working in the project area: **No impact**.

f) The project would not impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan: **Less than significant impact**.

g) The project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires: **Less than significant impact**.

7.10 HYDROLOGY AND WATER QUALITY

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
	i. Result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
	ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site?	☐	☐	☒	☐
	iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff?	☐	☐	☒	☐
	iv. Impede or redirect flood flows?	☐	☐	☒	☐
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Environmental Setting

The project is in the Weott Hydrologic Sub Area, which is part of the South Fork Eel River Hydrologic Area, which is part of the Eel River Hydrologic Unit (HUC-18010106). Anderson Creek flows from northeast to southwest along the southeastern edge of the project site and passes the sand and gravel quarry (see Section 8.12) before entering the South Fork Eel River. An unnamed tributary to Anderson Creek flows from north to south and joins Anderson Creek just east of the quarry. An unnamed tributary to the South Fork Eel River flows from east to west just north of the site and joins the South Fork Eel River further northwest. The South Fork Eel River is listed on the SWRCB 303(d) list as impaired by sediment and temperature (NCRWQCB 2018).

The South Fork Eel River is approximately 1,000 feet away from the project site at its nearest. Most project work would be slightly further to the east, across SR 254 from the river. East of SR 254, the project site slopes sharply downward from east to west. West of SR 254, the terrain flattens out and slopes gently from east to west until it reaches the South Fork Eel River.

FEMA flood insurance rate maps were reviewed for the project's proximity to a 100-year floodplain (FEMA 2020). The proposed project is on FEMA panel #06023C1850F, effective 11/4/2016. Generally, the portions of the project site that lay west of SR 254 (specifically the well and associated structures) are in a 100-year floodplain, and the portions that lay east of SR 254 are outside of the floodplain in an area of minimal flood hazard.

The project is not located in an area with a sustainable groundwater management plan in place, as the Sustainable Groundwater Management Act only applies to groundwater basins designated as medium or high priority. Currently there is one medium-priority basin, the Eel River Valley groundwater basin, within Humboldt County (Humboldt County 2021). That basin is located approximately 31 miles northwest of the project site.

Stormwater and wastewater drainage systems are not provided to residents by PCSD and are not within the scope of this project.

Impact Analysis

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than significant impact. The project would be limited to upgrading water procurement, treatment, and distribution infrastructure within or immediately adjacent to its existing footprint. The only grading proposed as part of the project would include any minor alterations necessary to accommodate new or upgraded features, such as the new upper zone storage tanks or booster pump, and the immediate area surrounding the spring to ensure that any surface runoff drains away from the spring. Soil disturbance would be limited to small areas for a short duration during construction. The project would disturb slightly more than 1 acre of soil, so a SWPPP would be required. As outlined in the SWPPP, staff and contractors would utilize BMPs, including covering exposed soil, limiting soil disturbance to the minimum area necessary, limiting or halting work during inclement weather, and utilizing wattles, water bars, and other erosion control measures where appropriate. The existing well would be redeveloped and pump tested prior to a return to routine operation.

No drainage swales are warranted as runoff rates would not significantly differ from those experienced under baseline conditions. This drainage would be excess partially or fully treated water and would not consist of wastewater. The project would not discharge wastewater in any location. Therefore, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality, and impacts would be less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than significant impact. The project area currently includes a well and a spring used to supply domestic water to all of, and fire suppression flows to portions of, the PCSD. The proposed project

would include improvements to both sources, and would improve water quality of the spring source by regrading the surrounding area and protecting it from surface influence. The project would also include the drilling of a second well near the first to ensure redundancy of the system and would include a booster pump to provide a secondary water source and fire suppression flows to middle and upper zone customers. According to the Preliminary Engineering Report (Water Works Engineers 2021, **Appendix B**), observed recent decreases in well production have been due to clogging of pores due to local geologic conditions and not due to an unsustainable rate of groundwater withdrawal. Modeling included in the engineering report states that the current rate of groundwater withdrawal is sustainable for current levels of demand, and the project area is not expected to increase in population nor in demand for water. The project would not include substantial increases in impervious surfaces that would limit natural groundwater recharge. The proposed project would have a less than significant impact on groundwater supplies or groundwater recharge.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

   i. Result in substantial erosion or siltation on- or off-site?

   ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site?

   iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff?

   iv. Impede or redirect flood flows?

Less than significant impact. The project would be limited to upgrading infrastructure within or immediately adjacent to its existing footprint. Soil disturbance would be limited to small areas for a short duration during construction. The project would disturb slightly more than 1 acre of soil, so a SWPPP would be required. As outlined in the SWPPP, staff and contractors would utilize BMPs, including covering exposed soil, limiting soil disturbance to the minimum area necessary, limiting or halting work during inclement weather, and utilizing wattles, water bars, and other erosion control measures where appropriate. The project would not include the addition of significantly more impervious surfaces than currently exist.

The drainage lines for the upper zone tank site currently discharge to a location near the edge of the project site. Future tank drains and overflow would discharge in a similar fashion as to baseline conditions per DDW's recommendation. No drainage swales are warranted as runoff rates would not significantly differ from those experienced under baseline conditions. The only grading proposed as part of the project would include any minor alterations necessary to accommodate new or upgraded features, such as the new upper zone storage tanks or booster pump, and the immediate area surrounding the spring to ensure that any surface runoff drains away from the spring. Impacts would be less than significant. The proposed project would not significantly alter drainage patterns and would not impede or redirect flood flows. It would not block or reroute any existing drainage or stream. Any impacts for points c)i. through c)iv. would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less than significant impact. The project is not in an area that is at risk from seiche or tsunami. The project is not located near a large body of water capable of producing a seiche or tsunami, but the westernmost portion of the project area is within a 100-year flood hazard area. The only infrastructure at risk of compromise due to floods would be the wells and well WTP, which includes sodium hypochlorite used for water treatment. However, a well and well WTP, along with associated sodium hypochlorite, already exist in the 100-year flood hazard area. The project would not constitute a change from existing conditions by placing more infrastructure within the 100-year floodplain (with the exception of a backup well), and would improve drinking water reliability by offering all district customers a reliable secondary source of water (i.e., the spring) if their primary well source were compromised. In advance of a potential flood, PCSD staff would take steps necessary to protect the well and well WTP including, but not limited to, placing sandbags and removing and chemicals from the area that may pose a risk if contacted by flood waters. Therefore, the proposed project would not risk release of pollutants due to project inundation from seiche, tsunami, or flood. Any impact would be less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than significant impact. The project is located within the area covered by the North Coast Regional Water Quality Control Plan and would not conflict with or obstruct its implementation (NCRWQCB 2018, 2021). Construction activities would feature standard BMPs, including temporary erosion and runoff control measures that minimize the potential for erosion and storm water runoff. Based on compliance, the proposed project is unlikely to have an impact upon groundwater.

The project is not located in an area with a sustainable groundwater management plan in place, as the Sustainable Groundwater Management Act only applies to groundwater basins designated as medium or high priority. Currently there is one medium-priority basin, the Eel River Valley groundwater basin, within Humboldt County (Humboldt County 2021). That basin is located approximately 31 miles northwest of the project site.

The project area currently includes one spring and one well. A small area around the spring would be re-graded to ensure that surface runoff drains away from the spring. The existing well would be maintained and an additional well would be drilled nearby to ensure redundancy of water supply. With proposed spring improvements, including regrading and the installation of additional membranes, screens, and piping, quality of water from the spring would be improved. Water quality from the current and proposed well is not of concern; observed declines in water yield were likely the result of soil particles clogging pores near the well and not due to overdraft. The Preliminary Engineering Report (Water Works Engineers 2021 **Appendix B**) found that the current rate of water withdrawal and distribution, which would be maintained under the proposed project, would be sustainable. Any impacts would be less than significant.

Findings

a) The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality: **Less than significant impact.**

b) The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project would impede sustainable groundwater management of the basin: **Less than significant impact**.

c) The project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces in a manner which would:

   i) Result in substantial erosion or siltation on- or off-site. **Less than significant impact.**

   ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site. **Less than significant impact**.

   iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater runoff drainage systems or provide substantial additional resources of polluted runoff. **Less than significant impact**.

   iv) Impede or redirect flood flows. **Less than significant impact.**

d) The project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones: **Less than significant impact.**

e) The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan: **Less than significant impact.**

7.11 LAND USE AND PLANNING

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a)	Physically divide an established community?	☐	☐	☐	☒
b)	Cause 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?	☐	☐	☒	☐

Environmental Setting

The General Plan land use designations for the project area are: Agricultural Exclusive (AE); Public Facility (PF); Residential Agriculture 5-20 Acres (RA5-20); and Timberland (T).

The General Plan (Humboldt County 2017) designation of AE applies to bottomland farms and lands that can be irrigated, and is also used in upland areas to retain agricultural character. Typical uses include dairy, row crops, orchards, specialty agriculture, and horticulture. Residential subdivision is not supported. Residential uses must support agricultural operation. Density range is 20-60 acres/unit. The Public Facilities designation is utilized to classify land appropriate for use by a governmental agency or public agency, which has the purpose of serving the public health, safety, convenience, or welfare. The RA designation applies to large lot residential uses that typically rely upon on-site water and wastewater systems. Varying densities are reflective of land capabilities and/or compatibility issues. RA5-20 is a rural residential designation for lands with slopes generally less than 30 percent and served by individual water and wastewater systems and good road access. The T designation is utilized to classify land that is primarily suitable for the growing, harvesting and production of timber. Prairie and grazing lands may be intermixed. Density range is 40-160 acres/unit.

The zoning codes for properties within the project area are: Agriculture Exclusive (AE); Agriculture General (5 acre minimum) (AG-B-5(5)); Flood Plain Qualified Combining (FP-Q); Timber Production Zone (TPZ); and Unclassified (U). Land uses including and surrounding the project site are agriculture, residential agriculture, commercial (i.e., small shops and inns), and timber. There is also state park land to the north of the project site, as described in Section 8.16.

According to Sections 313-163.1.9.9 and 314-43.1 .3 of the Humboldt County Zoning Regulations, principal permitted uses of the Agriculture Exclusive or AE zone include one-family dwelling, general agriculture, rooming and boarding of not more than two (2) persons, and manufactured home. Other uses not specified in principal permitted uses may be permitted upon the granting of a Use Permit. AE zones apply to bottomland farms and lands that can be irrigated, and it is also used in upland areas to retain agricultural character. Typical uses include dairy, row crops, orchards, specialty agriculture, and horticulture. Residential subdivision is not supported. Residential uses must support agricultural operation.

Section 314-7.2 states that the Agriculture General or AG Zone is intended to be applied in areas in which agriculture is the desirable predominant use and rural residential uses are secondary. Principal permitted uses include one-family dwellings and farm dwellings, rooming and boarding of not more than two (2) persons not employed on the premises, and manufactured homes. Compatible uses with a use permit include a variety of agricultural, timber, and related support operations.

Section 314-5.2 states that the Flood Plain or FP Zone is intended to be applied to areas which have been inundated by flood waters in the past and which may reasonably be expected to be inundated by flood waters in the future. The Flood Plain Zone is intended to limit the use of areas subject to such inundation and flooding to protect lives and property from loss, destruction, and damage due to flood waters and to the transportation by water of wreckage and debris. Principal uses include agriculture, RV parks, roadside stands, and recreational uses. A variety of conditionally permitted uses include residential, industrial, and commercial uses.

Section 313-7.3 identifies that in TPZs, the principal permitted use is timber production. Conditionally permitted uses include "Any use not specifically enumerated…if it is similar and compatible with the uses permitted in the TPZ zone." Section 21.1 of the Humboldt County Zoning Regulations states that uses permitted with a conditional or special permit in TPZ zones will "not significantly detract from, or inhibit the growing and harvesting of timber on the site or on adjacent properties."

Section 314-8.1 states that all of the unincorporated area of the County not otherwise zoned is designated as the Unclassified or U Zone. This area has not been sufficiently studied to justify precise zoning classifications. Principal permitted uses include one-family dwelling, general agriculture, rooming, and boarding of not more than two persons, and manufactured homes. All other uses not specified in the subsection, Principal Permitted Uses, may be permitted upon the granting of a Use Permit.

Impact Analysis

a) Physically divide an established community?

No impact. The proposed project would include updates to an existing water distribution system. The nature or intensity of use on any parcel would not change and built footprints would not significantly expand. Therefore, the proposed project would not physically divide an established community, and no impact would occur.

b) Cause significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less than significant impact. The proposed project would include updates to an existing water distribution system. The nature or intensity of use on any parcel would not change and built footprints would not significantly expand. Type and intensity of use would continue without significant change relative to existing conditions. Vegetation clearing would be limited to the minimum extent necessary to ensure site access and safety, and no removal of live trees is proposed. Potential impacts would be less than significant, and no mitigation would be necessary.

Findings

a) The project would not physically divide an established community: **No impact**.

b) The project would not cause 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**.

7.12 MINERAL RESOURCES

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐

Environmental Setting

Current mineral resource production in the County is primarily limited to sand, gravel, and rock extraction. The State Surface Mining and Reclamation Act of 1975 (SMARA) brought about a State policy for the reclamation of mined lands. According to the CA Department of Conservation's Mines Online, there is one SMARA parcel located in the project area. It is an idle sand and gravel quarry with a permitted size of 15 acres (Mine ID 91-12-0064) (CDC 2020c). It is located on Rock Pit Lane, near the southeastern corner of the project area, and the access road to the spring passes along the southern and eastern edge of the quarry.

Impact Analysis

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?

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

Less than significant impact. According to SMARA Mines Online, the project site is located immediately adjacent to one idle sand and gravel quarry operation. Given that the quarry is idle, and that only the access road around the periphery of the site would be used to ferry equipment during construction and maintenance, implementation of the project would not result in the loss of availability of a known mineral resource. Any impact would be less than significant for a) and b).

Findings

a) The project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state: **Less than significant impact.**

b) The 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: **Less than significant impact.**

7.13 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
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?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Environmental Setting

The project site is in a primarily agricultural, forested, and rural residential area of the County and includes residential, agricultural, light commercial, and timber uses. The area is bounded on the west and south by the South Fork Eel River, on the east by timbered ridges, and on the north by Humboldt Redwoods State Park. Noise sensitive receptors primarily include residences and businesses (such as motels) which are scattered throughout the project area.

The spring WTP is currently powered by an existing connection with PG&E, but has no standby power for use during power outages. A trailer mounted 10-kilowatt generator would be installed as part of the proposed project for use at the spring WTP during power outages. The well WTP is currently powered by an existing connection with PG&E, and maintains a pad-mounted generator for use during power outages. Chlorine pumps in both WTPs would have UPS batteries to provide continuous power for chlorination between loss of electrical service and generator power switch over. The proposed booster pump would be provided electrical service from an existing PG&E pole. The booster pump station would also be provided with a new 85 kw standby generator for use during times of power outage. The spring WTP backup generator would produce noise levels of approximately 67 decibels (measured at 23-feet away) and the booster pump backup generator would produce noise levels of 69 decibels (measured at 23-feet away).

The predominant existing noise sources in the vicinity of the proposed project site are vehicles on adjacent streets. Potential noise impacts as a result of the proposed project would be those resulting from project construction activities and from operation of backup generators to power the WTPs and the booster pump during times of power outages. Construction noise would be short-term and temporary, and generator noise would be limited to times of power failure.

Sensitive receptors, including residences, are scattered throughout the project site. Project improvements would be disbursed throughout PCSD, as would potential noise impacts from construction. However, any potential noise impacts during project operation would stem from operation of the one existing and two proposed backup generators during times of power failure. The nearest sensitive receptors to the well WTP and its associated backup generator are residences approximately 700-feet to the south. The nearest sensitive receptors to the proposed booster pump site and its proposed associated backup generator are residences approximately 400-feet away and a motel approximately 400-feet to the west. The nearest sensitive receptors to the spring WTP and its proposed backup generator are residences approximately 1,000 feet to the west.

Impact Analysis

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. The proposed project is in an area with agricultural, rural residential, timber, and minor commercial uses. During operation, the project would not generate noise greater than that of vehicle traffic on the streets in the project vicinity except for during times of power failure.

Potential noise sources associated with the project would include temporary noise during construction and occasional operation of backup generators during times of power failure following project completion. The noise standards in the Humboldt County General Plan are based on EPA recommendations. Section 3240 of the 2017 General Plan states*: "The Environmental Protection Agency identifies 45 Ldn indoors and 55 Ldn outdoors as the maximum level below which no effects on public health and welfare occur. Ldn is the Day-Night Noise Level. Ldn is the average sound level in decibels, excluding frequencies beyond the range of the human ear, during a 24-hour period with a 10dB weighting applied to nighttime sound levels. A standard construction wood frame house reduces noise transmission by 15dB. Since interior noise levels for residences are not to exceed 45dB, the maximum acceptable exterior noise level for residences is 60dB without any additional insulation being required. Of course, this would vary depending on the land use designation, adjacent uses, distance to noise source, and intervening topography, vegetation, and other buffers."* Since Ldn is a daily average, allowable noise levels can increase in relation to shorter periods of time. As stated in Section 3240, "*Fences, landscaping, and noise insulation can be used to mitigate the hazards of excessive noise levels*."

As noted above, the existing County noise standard utilizes an averaging mechanism (dBA Ldn) applicable to activities that generate sound sources averaged over a 24-hour period of time. This type of measurement is commonly used for measuring highway noise or industrial operations. A ten-decibel addition is added to noise levels occurring at nighttime – between 10:00 p.m. and 7:00 a.m. Utilizing a typical standard of 45 dBA Ldn interior noise level allows for a maximum of 60 dBA Ldn for 'normally acceptable' exterior levels.

Construction

Construction activities would result in a temporary increase in noise levels in the area. This noise increase would be short-term and would occur during daytime hours. The nearest sensitive receptors to any of the proposed project improvements are the residences and motel approximately 400-feet away

from the proposed booster pump its proposed backup generator. **Mitigation Measure NOI-01** is proposed to reduce potential impacts from construction noise to a level of less than significant. The proposed mitigation would limit construction hours and days and would require standard maintenance of tools and equipment to reduce noise levels. With implementation of the proposed mitigation, potentially significant impacts would be reduced to a level of less than significant.

Operation

Long-term operation of the project is not expected to generate significant noise levels that would exceed the Humboldt County General Plan Noise Element standards. Operations would be consistent with the sorts of activities that occur under existing conditions, including as deliveries, maintenance vehicle travel, routine maintenance, and pump operation.

While not proposed as a primary energy source, the applicant plans to install two generators for back up use in the event of a power outage: one at the spring WTP, and one at the proposed booster pump station. These would be in addition to the current backup generator near the well WTP. The generators would be sufficiently spaced from one another that they would not create a cumulative increase in noise within the project area. These generators would only be operated during times of power failure and would only be occasionally and temporarily used. Noise from the booster pump backup generator would be 69 decibels at 23-feet away; it would attenuate to acceptable levels before reaching the nearest sensitive receptors 400-feet away. The nearest sensitive receptors to the other potential noise sources during operation are 700-feet and 1,000-feet, respectively.

Therefore, with the proposed mitigation measures, the proposed project would not expose persons to or result in the generation of temporary or permanent noise levels in excess of standards established in the local general plan, noise ordinance, or applicable standard of other agencies. Impacts would be less than significant with mitigation.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than significant impact. Generally, construction activities within 200-feet and pile driving within 600-feet of a vibration sensitive use would be potentially disruptive to vibration-sensitive operations (Caltrans 2013). Land uses in which groundborne vibration could potentially interfere with operations or equipment, such as research, manufacturing, hospitals, and university research operations are considered “vibration sensitive” (Caltrans 2013). There are no vibration sensitive land uses within 200-feet of the proposed project. Operation of the project would not involve the use of heavy machinery or ground disturbing activities that would result in excessive groundborne vibration or groundborne noise levels. Therefore, the proposed project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels, and impacts would be less than significant.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No impact. The nearest airport to the project site is Garberville Airport, located approximately 11.4 miles to the south. At this distance, there would be no excessive noise levels related to the airport. There are no private airstrips in the vicinity of the project site. The proposed project would not expose people working in the project area to excessive noise levels. There would be no impact.

Mitigation Measures

NOI-01 Construction Related Noise

The following shall be implemented during construction activities:

- The operation of tools or equipment used in construction, drilling, repair, alteration or demolition shall only occur between the hours of 8 a.m. and 5 p.m. Monday through Friday, and between 9 a.m. and 5 p.m. on Saturdays.
- No heavy equipment related to construction activities shall be allowed on Sundays or holidays.
- All stationary and construction equipment shall be maintained in good working order and fitted with factory approved muffler systems.

Findings

a) The 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: **Less than significant impact with mitigation.**

b) The project would not result in the generation of excessive groundborne vibration or groundborne noise levels: **Less than significant impact**.

c) The project would not expose people residing or working in the project area to excessive noise levels due to an airport because it is not 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: **No impact**.

7.14 POPULATION AND HOUSING

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

Environmental Setting

Humboldt County is a rural county with a large land area and low population density. The US Census Bureau (USCB) estimates that the County's population was 136,373 in 2018, up from 134,794 in 2010 (USCB 2020a). Phillipsville is a Census Designated Place in unincorporated Humboldt County. Its population was 140 as of the 2010 Census (USCB 2020b). It is anticipated that the workforce for construction of the proposed project would be drawn from the existing population in southern Humboldt County and that they would maintain their current residences and commute to work. No long-term jobs are expected to be created as a result of this project. The project applicant intends to maintain existing levels of service for water customers and does not anticipate growth of the District, nor is the project planned to accommodate any significant future expansion.

Impact Analysis

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. Growth inducing impacts are generally caused by projects that have a direct or indirect effect on economic growth, population growth, or when the project taxes community service facilities which require upgrades beyond the existing remaining capacity. The proposed project would improve water service to existing customers and residences; it would not create new water service for a level of development beyond that which currently exists. Any impact would be less than significant.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Less than significant impact. The proposed project would not remove or render unusable any existing residence. The project is also not expected to induce any population growth, raise rents or property values significantly, or otherwise make housing prohibitive for current residents. Replacement housing would not be required. Any impact would be less than significant.

Findings

a) The project would not induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure): **Less than significant impact**.

b) The project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere: **Less than significant impact**.

7.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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:				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☐	☒
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

Environmental Setting

The Phillipsville Volunteer Fire Company is the nearest fire department (Humboldt County 2019). Their station is located at 2973 SR 254, Phillipsville, CA 95559, adjacent to the project site. The project site is in a State Responsibility Area (SRA) served by the California Department of Forestry and Fire Protection (CAL FIRE) (BOF 2020). Given the very low manpower of local volunteers (Humboldt County 2019) and the fact that CAL FIRE often responds to structure fires in addition to vegetation fires in SRA, CAL FIRE would also likely provide an initial response to any significant fire on the project site. Their nearest station is the CAL FIRE Garberville Station, located at 324 Alderpoint Rd, Garberville, CA 95542, approximately 9.4-miles south via US 101. The next nearest station is the CAL FIRE Weott Station, which is located at 370 Newton Rd, Weott, CA 95571, approximately 13.7-miles north/northwest of the project site via US 101.

The Humboldt County Sheriff's Office is responsible for law enforcement in the area, including the project site. The nearest Humboldt County Sheriff's Office is approximately 9.2-miles to the south by road at 648 Locust Street, Garberville. The Sheriff's Office has mutual aid agreements with cities and the California Highway Patrol. Mutual aid is an agreement between agencies where the agency of jurisdiction can request manpower or resources from allied agencies or agencies within the surrounding areas.

The nearest schools to the project site are Miranda Junior High School and South Fork High School of the Southern Humboldt Unified School District. They are located adjacent to each other, approximately 3.9-miles northwest of the project site in Miranda.

The small Franklin K. Lane grove of Humboldt Redwoods State Park rests just north of Phillipsville (the Lane grove is geographically separate from the rest of the park) (CDPR 2020). Some work related to the

project would take place in the areas surrounding the state park land, but would not occur on state park land. The South Fork Eel River runs alongside Phillipsville and is a popular destination for fishing, boating, picnicking, and swimming. No other parks or recreational facilities are in the immediate vicinity of the project.

Impact Analysis

a) Fire protection?

Less than significant impact. The proposed project would involve the updating of existing water procurement and distribution infrastructure. Though the risk of ignition may be slightly increased during construction, such elevated risk would be temporary and of short duration. No change in fire risk is projected post-construction relative to existing conditions. The project site is within wildland Fire Hazard Severity Zones of "Moderate" and "High". The site is located within an SRA served by CAL FIRE, with additional protection provided by the local volunteer fire department. Additionally, by adding water supply for fire suppression in an area where no hydrants currently exist, the project would improve the capacity of existing agencies to fight fire in the upper and middle zones of the project site. All proposed structure modifications would comply with County fire code requirements and access would be in compliance with requirements by CAL FIRE. The project would not create any long-term jobs and would not construct any large new facilities. Correspondingly, the project would not result in the need for new or physically altered fire protection facilities. Impacts to fire protection services from the proposed project would be less than significant, and no mitigation would be necessary.

b) Police protection?

No impact. The project would only consist of upgrading existing water distribution infrastructure, and would not result in an increase in population, criminal activity, or assets requiring any protection beyond existing levels. No impact would occur.

c) Schools?

No impact. The proposed project is not expected to have any growth-inducing effect and would not affect area schools or enrollment. No impact would occur.

d) Parks?

No impact. As previously mentioned, the proposed project would not directly or indirectly induce population growth and would not result in the need for new or expanded park facilities. The proposed action would not negatively affect any existing recreation opportunities. No impact on park facilities would occur.

e) Other public facilities?

No impact. As previously mentioned, the proposed project would not directly or indirectly induce population growth and would not result in an increased demand for other public facilities. No impact on demand for other public facilities would occur.

Findings

a) The project would not 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 for fire protection: **Less than significant impact**.

b) The project would not 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 for police protection: **No impact.**

c) The project would not 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 or other performance objectives for any of the public services for schools: **No impact**.

d) The project would not 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 or other performance objectives for any of the public services for parks: **No impact**.

e) The project would not 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 for other public facilities: **No impact.**

7.16 RECREATION

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

Environmental Setting

Humboldt County consists of an area of 3,572 square miles or 2.3 million acres, 80 percent of which is timberland and recreation areas. The county is mostly mountainous, except for the area around Humboldt Bay and the Eel River Delta. It also features 110 miles of Pacific coastline. The county receives over two million visitors per year and between 3,000 and 8,000 per day depending on the season. For context, the population of the county was estimated at approximately 135,000 in 2013 (Humboldt County Sheriff's Office 2015).

Recreational resources are addressed in the Humboldt County General Plan. The small Franklin K. Lane grove of Humboldt Redwoods State Park (which is geographically separate from the rest of the park) rests just north of Phillipsville (CDPR 2020). Some work related to the project would take place in the areas surrounding the state park land, but would not occur on state park land. The South Fork Eel River is a popular destination for fishing, boating, picnicking, and swimming. No other parks or recreational facilities occur in the immediate vicinity of the project.

Impact Analysis

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No impact. The project would not induce population growth or otherwise result in an increased demand on existing recreational facilities. Though a southern grove of Humboldt Redwoods State Park exists in the vicinity of the project site, work would not occur on state park land and it would not impact state park land or facilities. No impacts would occur.

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?

No impact. The proposed project would not induce population growth or otherwise result in an increased demand on existing recreational facilities that would require the construction or expansion of

recreational facilities. Further, the proposed project does not include construction of recreational facilities. No impacts would occur.

Findings

a) The project would not 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.**

b) The project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment: **No impact.**

7.17 TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

Environmental Setting

The project is located throughout the PCSD, which is bisected on a north/south axis by SR 254. Most PCSD facilities and infrastructure can be accessed directly from SR 254 or by adjoining public roads. The spring and its associated infrastructure would be accessed by a one-mile unpaved road, but this road would not be open to public access. SR 254 is a popular north/south route in southern Humboldt County due to its scenic quality, and the segment that runs through Phillipsville serves as the southern entrance to the Avenue of the Giants.

Public transit is provided by the Humboldt Transit Authority's Southern Humboldt Intercity bus line (HTA 2020). The line provides service between Eureka and Benbow, with two stops in Phillipsville. SR 254 in the project vicinity does not have dedicated sidewalks or bike lanes, but it has shoulders that could accommodate pedestrians and cyclists. Several side streets exist in the vicinity that also likely receive bicycle and pedestrian use.

Impact Analysis

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than significant impact. Project construction would be accomplished by a small number of workers and would take place almost entirely along existing small access roads. Construction of the project would result in a temporary increase in construction traffic that would be minimal and for a short duration. Construction activities would be contained on-site and would not result in substantial adverse effects or conflicts with the local roadway system. The project would not create any permanent new jobs or cause long-term changes in traffic volume or patterns. Therefore, the proposed project would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities, and impacts would be less than significant.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less than significant impact. CEQA Guidelines Section 15064.3 requires that transportation impacts be analyzed based on vehicle miles traveled (VMT). If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Construction activities for the proposed project would be relatively small in scale and short-term in nature and would not constitute a significant impact on vehicle miles travelled. The project would not change vehicle miles travelled during project operation relative to existing conditions. PCSD employs two part-time employees, one operator and one supervisor. Present employment levels and hours would continue following project implementation. The operator works approximately 14 hours per week and the supervisor works 20 hours per week, and these schedules would continue with the proposed project. There would not be a significant change in vehicle miles travelled.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than significant impact. The proposed project would use existing roadways to access the site. Most portions of the project site are accessible directly via SR 254 or via adjoining public and private roads. The spring and its associated infrastructure would be made accessible by improving a one-mile unpaved road. Design features of existing paved roadways would not be changed, and the unpaved road would be used only for construction and maintenance and would not be open to the public. Any additional traffic generated by construction activities, including the potential use of large flatbeds to deliver water storage tanks, would be short term and temporary in nature. The proposed project would not change the public road system in the area nor introduce permanent changes in traffic volume or composition. Therefore, the proposed project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment). Potential impacts would be less than significant, and no mitigation would be necessary.

d) Result in inadequate emergency access?

Less than significant impact. Most portions of the project site are accessible directly via SR 254 or via adjoining public and private roads. The spring and its associated infrastructure would be made accessible by improving a one-mile unpaved road. All access roads would provide sufficient access for emergency vehicles and opportunities for them to turn around. Potential impacts would be less than significant, and no mitigation would be necessary.

Findings

a) The project would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities: **Less than significant impact**.

b) The project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b): **Less than significant impact.**

c) The project would not substantially increase hazards due to design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment): **Less than significant impact.**

d) The project would not result in inadequate emergency access: **Less than significant impact**.

7.18 TRIBAL CULTURAL RESOURCES

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

A Cultural Resource Investigation was prepared for the proposed project in February 2021 by HELIX Environmental Planning, Inc. Information in this section is summarized from the Cultural Resource Investigation, which is provided as **Appendix D** to this ISMND.

Environmental Setting

The tribal cultural resources setting of the project is described in Section 8.5 – *Cultural Resources*.

Tribal Cultural Resources are defined in Section 21074 of the California PRC as sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either included in or determined to be eligible for inclusion in the CRHR, or are included in a local register of historical resources as defined in subdivision (k) of Section 5020.1, or are a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. Section 1(b)(4) of AB 52 established that only California Native American tribes, as defined in Section 21073 of the California PRC, are experts in the identification of Tribal Cultural Resources and impacts thereto.

AB 52 requires that the Lead Agency (PCSD) provide notice to any California Native American tribes that have requested notice of projects subject to CEQA review and consult with tribes that responded to the notice within 30 days of receipt with a request for consultation. Section 21073 of the Public Resources Code (PRC) defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes. PCSD has not been contacted by any Native American governments to initiate AB 52 government-to-government consultation.

The purpose of consultation is to identify Tribal Cultural Resources (TCR) that may be significantly impacted by the proposed project and to allow the City to avoid or mitigate significant impacts prior to project approval and implementation. Section 21074(a) of the PRC defines TCRs, for the purpose of CEQA, as:

> Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
>
> a) Included or determined to be eligible for inclusion in the California Register of Historical Resources; and/or,
>
> b) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or,
>
> c) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1, for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because criteria A and B also meet the definition of a Historical Resource under CEQA, a TCR may also require additional consideration as a Historical Resource. TCRs may or may not exhibit archaeological, cultural, or physical indicators and can only be identified by a culturally affiliated tribe, which has been determined under State law to be the subject matter expert for TCRs.

CEQA requires that the Lead Agency initiate consultation with tribes at the commencement of the CEQA process to identify TCRs. Furthermore, because a significant effect on a TCR is considered a significant impact on the environment under CEQA, consultation is required to develop appropriate avoidance, impact minimization, and mitigation measures. Therefore, in accordance with the requirements summarized above, the PCSD carried out, or attempted to carry out, informal tribal consultation for the project.

On December 21, 2020, HELIX requested that the NAHC conduct a search of their Sacred Lands File for the presence of Native American sacred sites or human remains in the vicinity of the proposed project area. A written response received from the NAHC on December 22, 2020, stated that the Sacred Lands File failed to indicate the presence of Native American cultural resources in the vicinity of the APE.

On December 28, 2020, HELIX sent letters to three Native American contacts that were recommended by the NAHC as potential sources of information related to cultural resources in the vicinity of the project area:

- Edward Bowie, Cultural Liaison, Bear River Band of Rohnerville Rancheria
- Erika Cooper, Tribal Historic Preservation Officer, Bear River Band of Rohnerville Rancheria
- Josefina Cortez, Chairwoman, Bear River Band of Rohnerville Rancheria

The letters advised the tribe and specific individuals of the proposed project and requested information regarding cultural resources in the immediate area, as well as any feedback or concerns related to the proposed project. As of the date of this report, one response has been received: Ms. Erika Cooper, Tribal Historic Preservation Officer of the Bear River Band of the Rohnerville Rancheria, replied via email on February 19, 2021. Ms. Cooper did not offer any comments or recommendations related to the proposed project, but requested a point of contact for the project's lead agency, clarification of the project's regulatory framework, and an update on the results of the records search. This requested information was provided to Ms. Cooper via email response on February 22, 2021. Revised Lead Agency information and the new point of contact was provided to Ms. Cooper on March 18, 2021. In a response received on the same date, Ms. Cooper requested an electronic copy of the Cultural Resources Assessment (**Appendix D**). This document was transmitted to her via email on March 18, 2021.

Documentation related to Native American coordination is included in **Appendix D** to this ISMND (HELIX 2021b).

Impact Analysis

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

   i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

   ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less than significant with mitigation. In reviewing the lines of evidence summarized above, this project would not have an impact on known TCRs. There exists an extremely low potential for the discovery of previously unknown TCRs during project construction, but if TCRs were to be encountered, the project activity could result in a significant impact. Implementation of unanticipated discovery procedures, as provided in **Mitigation Measure TCR-01** below, would reduce that impact to less than significant.

Mitigation Measures

TCR-01 Unanticipated Discovery of Tribal Cultural Resources.

If potentially significant TCRs are discovered during ground disturbing construction activities, all work shall cease within 50-feet of the find. A Native American Representative from traditionally and culturally affiliated Native American Tribes that requested consultation on the project shall be contacted and invited to assess the significance of the find and make recommendations for

further evaluation and treatment, as necessary. If deemed necessary by the Lead Agency, a qualified cultural resources specialist meeting the Secretary of Interior's Standards and Qualifications for Archaeology, may also assess the significance of the find in joint consultation with Native American Representatives to ensure that tribal values are considered. Work at the discovery location cannot resume until the Lead Agency, in consultation as appropriate and in good faith, determines that the discovery is either not a TCR, or has been subjected to culturally appropriate treatment, if avoidance and preservation cannot be accommodated.

Findings

a) Cause a substantial adverse change in the significance of a tribal cultural resource listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code §5020.1(k): **Less than significant impact with mitigation.**

b) Cause a substantial adverse change in the significance of a tribal cultural resource determined by the lead agency to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code §5024.1: **Less than significant impact with mitigation.**

7.19 UTILITIES AND SERVICE SYSTEMS

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
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?	☐	☐	☒	☐
b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Environmental Setting

The project area includes the following utilities:

- Water supply – Water for domestic use is supplied by the PCSD. Upgrading the water supply system is the subject of this ISMND and upgrades are described in detail in Section 4.0, Project Description.
- Storm water drainage facilities – The proposed project would not include the construction of any stormwater facilities. It would only include the construction of small swales to accommodate drainage from the upper zone tanks.
- Solid waste service – Solid waste is picked up weekly by Recology. Solid waste and recycling are hauled off-site to the Humboldt Waste Management Authority transfer station at least once per week. Solid waste from Humboldt County is largely transported to one of three out-of-area landfills for disposal: the Anderson Landfill in Shasta County; Dry Creek Landfill in Medford, Oregon; and Potrero Hills Landfill in Suisun City.

- Electricity – The spring WTP is currently powered by an existing connection with PG&E, but has no standby power for use during power outages. A trailer mounted 10-kilowatt generator would be installed as part of the proposed project for use during power outages. The well WTP is currently powered by an existing connection with PG&E, and maintains a pad-mounted generator for use during power outages. Chlorine pumps in both WTPs would have UPS batteries to provide continuous power for chlorination between loss of electrical service and generator power switch over. The proposed booster pump would be provided electrical service from an existing PG&E pole. The booster pump station would also be provided with a new 85-kilowatt standby generator for use during times of power outage.

Impact Analysis

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less than significant impact. The project would mostly consist of improvements to existing water facilities and would include updating or replacing infrastructure at the spring site, within the spring and well WTPs, upper zone storage tanks, and distribution piping. The project would also include the installation of a fire suppression water supply system in the upper zone, a trailer mounted generator to power the spring WTP during power outages, a booster pump, and a standby generator to power the booster pump during times of power outages. Power would be supplied to the proposed booster pump during normal operations by connection with an existing PG&E utility pole. A small area of drainage swale would be constructed to accommodate overflow or drainage from the new upper zone storage tanks. Infrastructure improvements would be designed to maintain existing levels of service and would be kept within or immediately adjacent to currently disturbed areas.

The proposed project would not require or result in the construction of new or expanded wastewater treatment or storm water drainage, natural gas, or telecommunications facilities. Impacts would be less than significant, and mitigation would not be necessary.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than significant impact. The project would improve reliability of water access for the district residents. By drilling a second well, improving spring and WTP conditions, improving distribution infrastructure, and hydrologically connecting all zones of the project area, the project would help ensure redundancy of water supplies in the case that one would become compromised. It would also improve the quality of water delivered to many of the residents. Modeling done during project design (Water Works Engineers 2021) found that the existing infrastructure along with proposed improvements was adequate to supply the current and foreseeable needs of the district, and that water supply provided at current levels was sustainable assuming that demand remained relatively constant.

The proposed project would have sufficient water supplies available to serve the project during normal, dry and multiple dry years. Impacts would be less than significant, and no mitigation would be necessary.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less than significant impact. The proposed project would supply existing customers based on current levels of demand; amount of water supplied and consumed would not significantly change relative to existing conditions. The project would not increase the production of wastewater. Any impacts would be less than significant.

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?

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 (PRC Division 30), enacted through 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 Department of Resources, Recycling, and Recovery (Cal Recycle), formerly known as the California Integrated Waste Management Board (CIWMB). Each county is required to prepare and submit an Integrated Waste Management Plan for expected solid waste generation within the county to the CIWMB. In 2012, the unincorporated area of Humboldt County met or exceeded the waste diversion mandate of 50 percent set by the Integrated Waste Management Act of 1989.

The proposed project would comply with all federal, state, and local statutes related to solid waste, including AB 939. This would include compliance with the Humboldt Waste Management Authority's recycling, hazardous waste, and composting programs in the county to comply with AB 939.

Solid waste from Humboldt County is largely transported to one of three out-of-area landfills for disposal: the Anderson Landfill in Shasta County; Dry Creek Landfill in Medford, Oregon; and Potrero Hills Landfill in Suisun City. The Anderson Landfill is not expected to close until 2036, Dry Creek is expected to remain open until 2099, and Potrero Hills until 2053. The proposed project is not expected to generate significant amounts of solid waste during construction or operation due to its nature as a water supply infrastructure. The proposed project would have a less than significant impact regarding solid waste as discussed for subsections d) and e).

Findings

a) The project would require or result in the relocation or construction of new or expanded utilities, including water, wastewater treatment or storm water drainage, and electric power, natural gas, or telecommunications facilities. The construction or relocation of these utilities would not cause significant environmental effects: **Less than significant impact**.

b) The project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years: **Less than significant impact**.

c) The project would not result in a determination by the wastewater treatment provider which services or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments: **Less than significant impact**.

d) The 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: **Less than significant impact**.

e) The project would not violate any federal, state, and local management and reduction statutes and regulations related to solid waste: **Less than significant impact**.

7.20 WILDFIRE

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

Environmental Setting

SB 1241 (2012) requires the legislative body of a city or county to adopt a comprehensive, long-term general plan that includes a safety element for the protection of the community from unreasonable risks associated with wildland and urban fires. The update of the safety element must address fire risks on land classified as State Responsibility Area (SRA) and on very high fire hazard severity zones (VHFHZ) of Local Responsibility Area (LRA).

The Humboldt County General Plan section on Fire Hazards outlines policies that address and reduce fire risk in the County. Policies include improving subdivision design and building code conformance, increasing information exchange and education, and encouraging prescribed burning and native plant conservation (Humboldt County 2017). The Humboldt County Community Wildfire Protection Plan (CWPP) gives further guidelines on how these policies will be implemented; the Avenue of the Giants Planning Unit Action Plan is the portion of the CWPP that encompasses the project area (Humboldt County 2019).

The entire project area is located in the Avenue of the Giants fire planning unit of Humboldt County. It is also classified as SRA (BOF 2020). Generally, the higher elevations and more densely vegetated areas of the project site are classified as a High Fire Hazard Severity Zone, and flatter, less densely vegetated land closer to the South Fork Eel River is classified as a Moderate Fire Hazard Severity Zone (Humboldt County 2020). CAL FIRE would provide an initial response to a wildfire on the project site. Their nearest station is the CAL FIRE Garberville Station, located at 324 Alderpoint Rd, Garberville, CA 95542,

approximately 9.4 miles south via US 101. The next nearest station is the CAL FIRE Weott Station, which is located at 370 Newton Rd, Weott, CA 95571, approximately 13.7 miles north/northwest of the project site along US 101. The Phillipsville Volunteer Fire Company is another nearby department with the capacity to aid in wildland fire suppression (Humboldt County 2019). Their station is located at 2973 SR 254, Phillipsville, CA 95559, adjacent to the project site.

Impact Analysis

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than significant impact. The project site is located within the Avenue of the Giants Wildfire Planning Unit. Evacuation routes would vary based on the nature and location of the hazard, as well as predicted weather, traffic, and needs of first responders. Potential evacuation routes from the project area include following US 101 or SR 254 north toward Weott or south toward Garberville. The project site is located in close vicinity of one fire station and is accessible by at least two others via US 101, and it is located immediately adjacent to suitable evacuation routes (US 101 and SR 254). The project would not limit ingress or egress of the project area. The most recent Humboldt County Emergency Operations Plan was reviewed during the drafting of this document, and none of its provisions were found to be in conflict with the proposed action. Therefore, the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less than significant impact. The project is situated in and around a small rural community and located within “Moderate” and “High” fire hazard severity zones. The project involves upgrading an existing water procurement and distribution system to serve the current residents of the area. The project would not induce growth nor involve the creation of new occupied structures within a wildfire hazard zone. By providing higher elevation areas of the site (which currently lack a water supply for fire suppression) with a fire hydrant system, the project would enhance the protection of existing residences, infrastructure, and wildlands. Impact from the project would be less than significant.

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. Much of the project site is accessible via paved roads within the more densely populated portion of the district; however, the spring and its associated infrastructure would be accessed via a one-mile unpaved access road. This road may require minor improvements including grading and the removal of downed trees along its path to allow equipment to pass. These road improvements would enhance the road’s function as a fuelbreak and may help to limit the spread of a future wildfire in the area. The proposed project would include the installation of 10 fire hydrants in an area where none currently exist. These hydrants and the water supply they provide would aid in the suppression of future wildfires and would protect homes and infrastructure; one of the goals of this project is to ensure that all residents of the district have access to municipal water supplies suitable for firefighting. The proposed booster pump would be powered by a connection with an existing PG&E pole nearby, and would have a standby generator for use during power outages. A trailer mounted generator

would be installed at the spring WTP and would replace an existing pad mounted generator for use during power outages. Given that the trailer mounted generator would replace an existing generator, and that both new generators would only be operated during times of power failure, the installation of new generators is not expected to introduce a significant new ignition source to the area. Remaining project improvements, including the installation of pipes and tanks, would be done either within or immediately adjacent to areas currently occupied by PCSD infrastructure.

During construction and operation of the proposed facility, the presence of humans and associated equipment may expose the area to increased risk of fire ignition. However, staff and contractors would follow all best practices to reduce fire risk, including avoiding smoking in non-designated areas; using spark arrestors as warranted; maintaining equipment in its proper working order; ensuring that all loads are properly secured and no chains or metal drag; avoiding work that could potentially produce sparks during red flag warnings; and adhering to all requirements for burn permits. Fire suppression equipment, including fire extinguishers and hand tools, would be available onsite for the containment of small, incipient fires if it is safe for workers to do so and they have received proper training in the use of such tools. The project would be required to comply with CAL FIRE SRA requirements during construction. Compliance with these requirements, along with the above measures, would reduce any impacts to less than significant.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less than significant impact. Based on FEMA flood maps, portions of the project area adjacent to the South Fork Eel River are in a 100-year floodplain, specifically the well and its adjacent infrastructure. However, the project is only focused on upgrading existing infrastructure to maintain the existing level of service. It would not induce population growth nor introduce new facilities into the area beyond the level that currently exist. The project would also not involve significant clearing of trees or brush, exposure of hillsides, or substantial changes to existing drainage patterns. Therefore, people or structures would not be susceptible to significant new risks involving downstream flooding as a result of runoff, post-fire slope instability or drainage changes. The site is located within an area that has a history of landslides. Exposure of people and or structures involving landslides associated with construction and operation of the proposed project would be less than significant with implementation of proposed recommendations in the soils/geotechnical report and compliance with the CBC. Therefore, 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, and impacts would be less than significant.

Findings

a) The project would not substantially impair an adopted emergency response plan or emergency evacuation plan: **Less than significant impact.**

b) The project would not exacerbate wildfire risks, due to slope, prevailing winds, and other factors, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire: **Less than significant impact**.

c) The 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: **Less than significant impact.**

d) The 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: **Less than significant impact**.

7.21 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?	☐	☒	☐	☐
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?	☐	☒	☐	☐
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Evaluation of Mandatory Findings of Significance

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 Impact with Mitigation. The preceding analysis indicates that the proposed project has the potential to adversely affect biological, cultural, noise, and tribal cultural resources. See Sections 8.4, 8.5, 8.13, and 8.18 of this Initial Study for discussion of the proposed project's potential impacts on these environmental issue areas. With implementation of the mitigation measures identified in those Sections, and compliance with County and State programs and requirements identified in this report, impacts would be reduced to a less than significant level. No significant or potentially significant impacts would remain.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when

viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?

Less Than Significant Impact with Mitigation. While the project would indirectly contribute to cumulative impacts associated with disturbance and infrastructure development in the CSD and region, these impacts have previously been evaluated by the County and considered in development of the County's General Plan as set forth in this Initial Study. Key areas of concern are discussed in detail below.

Evaluation of cumulative biological resource impacts: In order to evaluate special-status species and/or their habitats with the potential to occur in the project site and/or be impacted by the proposed project, HELIX obtained lists of special-status species known to occur and/or having the potential to occur in the proposed project site and vicinity from the USFWS (USFWS 2020), the CNPS (CNPS 2021), and the CNDDB (CDFW 2020). Additionally, a biological resources reconnaissance survey was conducted by HELIX Wildlife Biologist Stephanie McLaughlin, M.S. Although no evidence of sensitive species was observed on the project site, the Board recognizes that sensitive species may use the project site and that they may be encountered during project construction. With the implementation of **Mitigation Measures BIO-01 and BIO-02,** the impacts would be reduced to a less than significant level and potentially cumulative impacts would be avoided.

Evaluation of cumulative cultural resources impacts: A database records search was conducted for the project site, including a 0.5-mile buffer area, at the NWIC of the California Historical Resources Information System (CHRIS) at Sonoma State University. Additionally, a pedestrian survey of the project site was conducted by HELIX Staff Archaeologist Jentin Joe. Although no evidence of cultural resources of significance were noted on project site, the Board recognizes that sensitive and/or protected resources could be unintentionally discovered during project construction. With implementation of **Mitigation Measures CUL-01 and CUL-02,** the impacts would be reduced to a less than significant level and potentially cumulative impacts would be avoided.

Evaluation of cumulative tribal cultural resources impacts: PCSD does not have AB 52 consultation agreements with any tribal government. The Lead Agency informally notified the tribe provided by the NAHC of the proposed project and requested information regarding tribal cultural resources in the project area. The Bear River Band of Rohnerville Rancheria responded to the information requesting seeking Lead Agency contact information and an electronic copy of the Cultural Resources Assessment prepared for the proposed project. This information was provided to the tribe as requested. The tribe did not provide specific information in regard to TCRs in the project area. The Lead Agency relied on other methods, including those outlined in the Cultural Resources Assessment (**Appendix D**) to evaluate the potential presence of TCRs. Although there is no evidence of TCRs occurring or having the potential to occur on the project site, the Lead Agency recognizes that sensitive and/or protected resources could be unintentionally discovered during project construction. With implementation of **Mitigation Measure TCR-01**, the impacts would be reduced to a less than significant level and potentially cumulative impacts would be avoided.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact. Because of site conditions, existing County regulations, and regulation of potential environmental impacts by other agencies, the proposed project would not have the potential

to cause substantial adverse effects on human beings as demonstrated in the evaluation contained in this Initial Study. Therefore, impacts would be less than significant.

Findings

a) The project would not 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.**

b) The project would not have impacts that are individually limited, but cumulatively considerable: **Less than significant with mitigation.**

c) The project would not have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly: **Less than significant impact.**

8.0 REFERENCES

Bajada Geosciences, Inc. 2020. Preliminary (Desktop) Geotechnical Report, Phillipsville Community Services District Improvements, Phillipsville Area, Humboldt, California. December 11, 2020. Included as **Appendix C** to this ISMND.

Belcher Abstract & Title Co. 1922. Atlas of Humboldt County, California compiled from official records and private sources and surveys. On file at the Northwest Information Center, Sonoma State University.

California Air Resources Board (CARB). 2017. The 2017 Climate Change Scoping Plan Update. January. Available at: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

_____. 2015. Risk Management Guidance for Stationary Sources of Air Toxics. Available at: https://www.arb.ca.gov/toxics/rma/rmgssat.pdf.

_____. 2008. Climate Change Scoping Plan – A Framework for Change. December. Available at: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2008-scoping-plan-documents.

California Board of Forestry and Fire Protection (BOF), State Responsibility Area Viewer. Accessed November 30, 2020 from https://bof.fire.ca.gov/projects-and-programs/state-responsibility-area-viewer/

California Department of Conservation (CDC). 2020a. Farmland Mapping and Monitoring Program. Accessed on 12/01/2020 from: https://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx

_____. 2020b. California Important Farmland Finder. Accessed on 12/02/2020 from: https://maps.conservation.ca.gov/DLRP/CIFF/.

_____. 2020c. Mines Online. Accessed on December 1, 2020 from: https://maps.conservation.ca.gov/mol/index.html

California Department of Fish and Wildlife (CDFW). 2020. California Natural Diversity Database. Accessed on November 20, 2020 and included in **Appendix D** to this ISMND.

California Department of Parks and Recreation (CDPR). 2020. Humboldt Redwoods State Park. Accessed on December 1, 2020 from: https://www.parks.ca.gov/?page_id=425

California Department of Toxic Substances Control (DTSC). 2020. Envirostor. Accessed on December 1, 2020 from: https://envirostor.dtsc.ca.gov/public/how_to_use_envirostor.

California Department of Transportation (Caltrans). 2020. California State Scenic Highway System Map. Accessed on December 1, 2020 from: https://www.arcgis.com/apps/webappviewer/index.html?id=2e921695c43643b1aaf7000dfcc19983.

_____. 2013. Transportation and Construction Vibration Guidance Manual, Environmental Engineering, Hazardous Waste, Air, Noise, Paleontology Office. September.

California Energy Commission (CEC). 2021a. 2019 Total System Electric Generation. Accessed February 18, 2021 at https://www.energy.ca.gov/almanac/electricity_data/total_system_power.html

_____.2021b. Supply and Demand of Natural Gas in California. Accessed on February 18, 2021 from: https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california

_____. 2021c. California Gasoline Data, Facts, and Statistics. Accessed on November 30, 2020 from https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-gasoline-data-facts-and-statistics

_____. 2021d. Diesel Fuel Data, Facts, and Statistics. Accessed on November 30, 2020 from https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/diesel-fuel-data-facts-and-statistics

California Geological Survey (CGS). 2020. Fault Activity Map of California. Accessed on December 2, 2020 from https://cadoc.maps.arcgis.com/home/item.html?id=510bf02ccc9543f99b625551a3e7c7d0

California Native Plants Society (CNPS). 2021. Plant List Found in Quad 4012327. Accessed on February 24, 2021 from http://www.rareplants.cnps.org/result.html?adv=t&quad=4012327.

California State Water Resources Control Board (SWRCB). 2020. GeoTracker. Accessed on 12/01/2020 from: https://geotracker.waterboards.ca.gov/.

Dibblee, T.W., and Minch, J.A. (2008), Geologic Map of the Point Delgada and Garberville 15 Minutes Quadrangle, Humboldt and Mendocino Counties, California, Dibblee Foundation Map DF-414, Scale 1:62,500.

Federal Emergency Management Agency (FEMA). 2020. FEMA Flood Map Service Center. Accessed on 12/02/2020 from: https://msc.fema.gov/portal/home

Fraticelli, L.A., Alpers, J.A., Irwin, J.P., Blake, M.C., and Wentworth, C.M. (2012), Digital Geologic Map of the Redding 1 degree x 2 degree Quadrangle, Shasta, Tehama, Humboldt and Trinity Counties, California, U.S. Geological Survey Open-File Report OF-2012-1228, Scale 1:250,000.

Haydon, W.D. (2014), Landslide Hazards Along Route 101 (Redwood Highway) Between Laytonville and Rio Dell and Route 162 (Covelo Road) Between Longvale and Farley, Mendocino and Humboldt Counties, California, Landslide Hazard Mapping for Selected California Highway Corridors, Phase 2, California Geological Survey Special Report 243, Chapter 2, 54 p. with plates.

HELIX Environmental Planning, Inc. 2021a. Biological Resources Evaluation Letter Report for the Phillipsville Community Services District Water System Improvements Project, Humboldt County, CA. Included as **Appendix C** to this ISMND.

_____. 2021b. Cultural Resource Assessment Letter Report for the Phillipsville Community Services District Water System Improvements Project, Humboldt County, California. Included as **Appendix D** to this ISMND.

Hinds, N.E. (1952), Evolution of the California Landscape, California Division of Mines and Geology Bulletin 158, pp. 145-152.

Humboldt County. 2021. Groundwater. Accessed on 02/16/21 from: https://humboldtgov.org/2489/Groundwater.

_____.2020. Humboldt GIS Portal. Accessed on 12/01/20 from: https://webgis.co.humboldt.ca.us/HCEGIS2.0/.

_____. 2019. Humboldt County Community Wildfire Protection Plan, 2019: Chapter 4.14: Avenue of the Giants Planning Unit Action Plan. Accessed on December 3, 2020 from: https://humboldtgov.org/DocumentCenter/View/71008/414-Avenue-of-the-Giants-Planning-Unit-Action-Plan_Final_Revised-12719.

_____. 2017. Humboldt County General Plan. Accessed on 12/1/20 from: https://humboldtgov.org/205/General-Plan

_____. 2012. Draft Climate Action Plan. Accessed on February 16, 2021 from: https://humboldtgov.org/DocumentCenter/View/1347/Draft-Climate-Action-Plan-PDF?bidId=.

Humboldt County Sheriff's Office. 2015. County of Humboldt Emergency Operations Plan. Accessed on December 3, 2020 from: https://humboldtgov.org/DocumentCenter/View/51861/Humboldt-County-Emergency-Operations-Plan-2015.

Humboldt Transit Authority (HTA). 2020. Southern Humboldt Intercity. Accessed on 12/01/2020 from: https://hta.org/agencies/southern-humboldt-intercity/.

Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The Physical Science Basis. Summary for Policymakers. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. February. Available at: https://www.ipcc.ch/report/ar4/wg1/.

Natural Resource Conservation Service (NRCS). 2020. Web Soil Survey. Accessed on 12/01/2020 from: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

North Coast Regional Water Quality Control Board (NCRWCB). 2018. Basin Plan. Accessed on 12/02/2020 from: https://www.waterboards.ca.gov/northcoast/water_issues/programs/basin_plan/basin_plan_documents/.

_____. 2021. General NPDES No. CAG0024902 – Waste Discharge Requirements for Low Threat Discharges to Surface Waters in the North Coast Region. Accessed on 03/25/2021 from: https://www.waterboards.ca.gov/northcoast/board_decisions/adopted_orders/pdf/2015/150312_0003_Low_Threat_General_Order.pdf.

Shuford, W.D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.

US Fish and Wildlife Service (USFWS). 2020. IPaC Resource List. Accessed on November 20, 2020 and included in **Appendix C** to this ISMND.

_____. 2016. Endangered and Threatened Wildlife and Plants: Revised Designation of Critical Habitat for the Marbled Murrelet; Final Rule. Federal Register Vol. 81, No. 150 August 4, 2016.

US Census Bureau (USCB). 2020a. American Community Survey. 2018: ACS 1-Year Estimates Data Profiles, 2010: ACS 1-Year Estimates Data Profiles. Accessed on 12/01/2020 from: https://data.census.gov/.

_____. 2020b. Explore Census Data. Accessed on 12/01/2020 from: https://data.census.gov/cedsci/table?g=1600000US0656854&tid=DECENNIALSF12010.P1&hidePreview=false

Verner, J.; McKelvey, K.S.; Noon, B.R.; Gutiérrez, R.J.; Gould, G.I., Jr.; Beck, T.W. (eds.). 1992. The California spotted owl: a technical assessment of its current status. Gen. Tech. Rep. PSW-GTR-133. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 285 p.

Water Works Engineers. 2021. Phillipsville Community Services District Water Quality, Supply and Distribution Improvements Preliminary Engineering Report. Included as **Appendix B** to this ISMND.

Zeiner, D. C., W. F. Laudenslayer, and K. E. Mayer (eds.). 1990. California's wildlife. Volume II: Birds. California Statewide Wildlife Habitat Relationships System. Sacramento, CA: California Department of Fish and Game.

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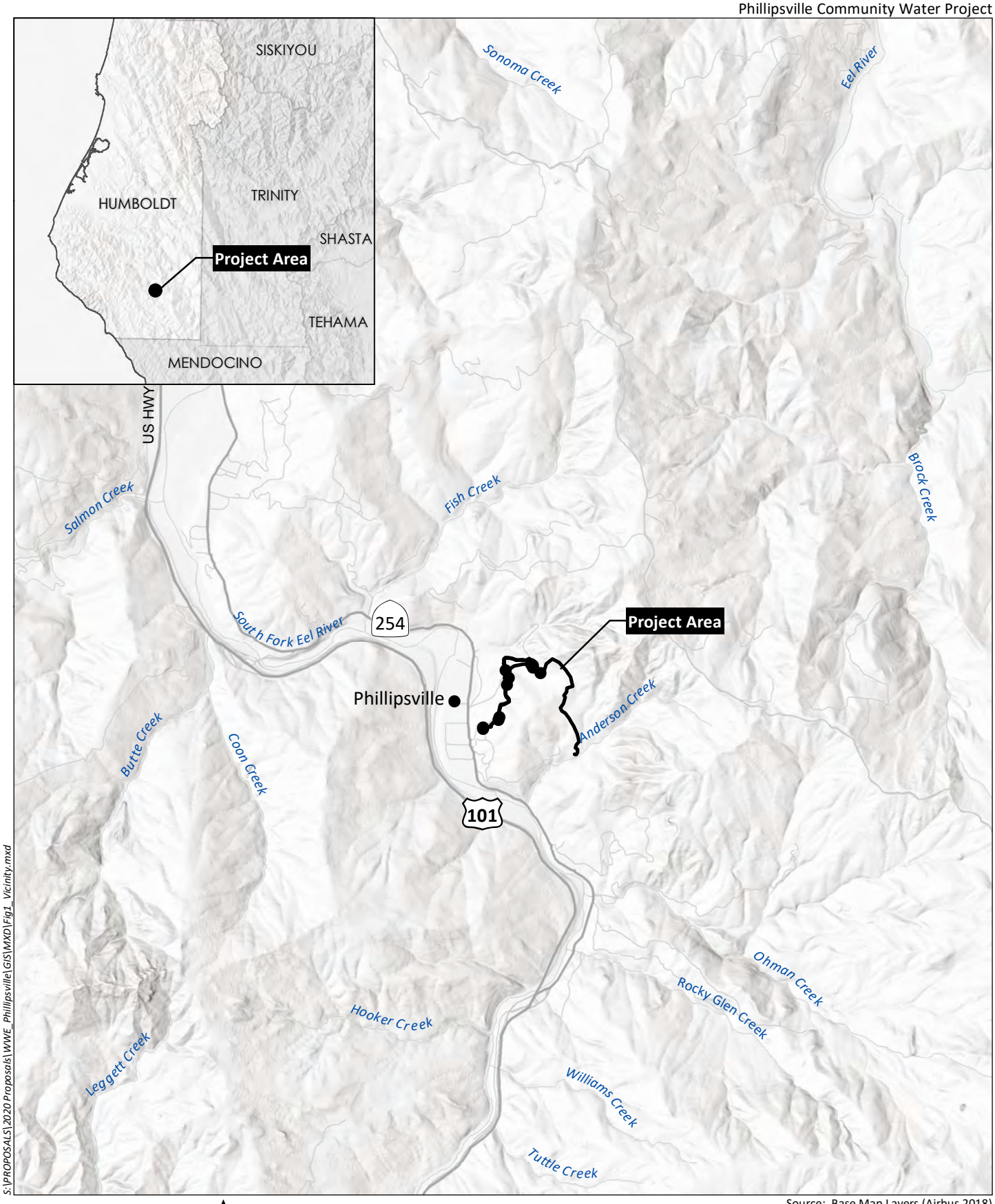
Appendix A

Figures

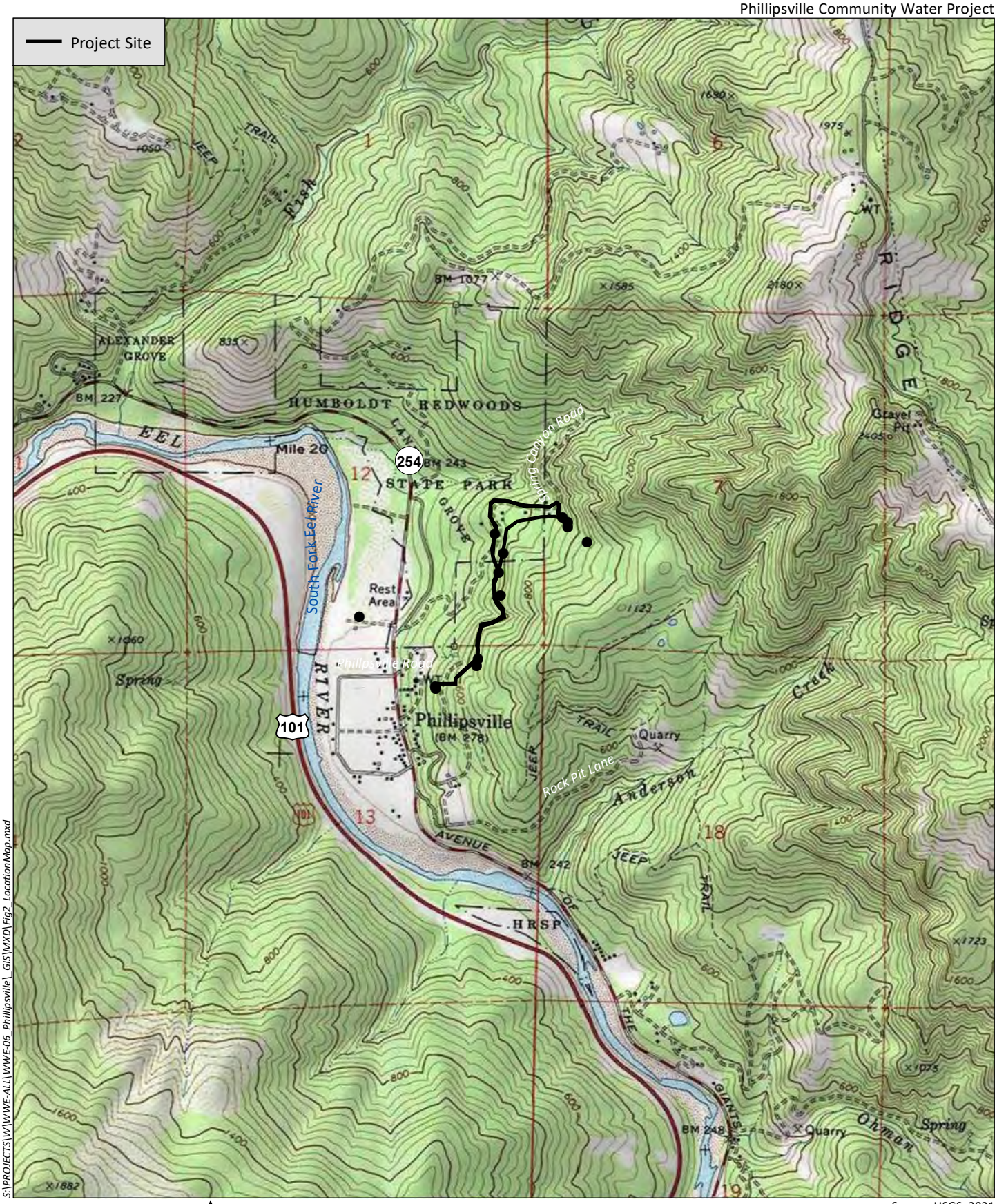


Source: Base Map Layers (Airbus 2018)

HELIX Environmental Planning

Vicinity Map

Figure 1



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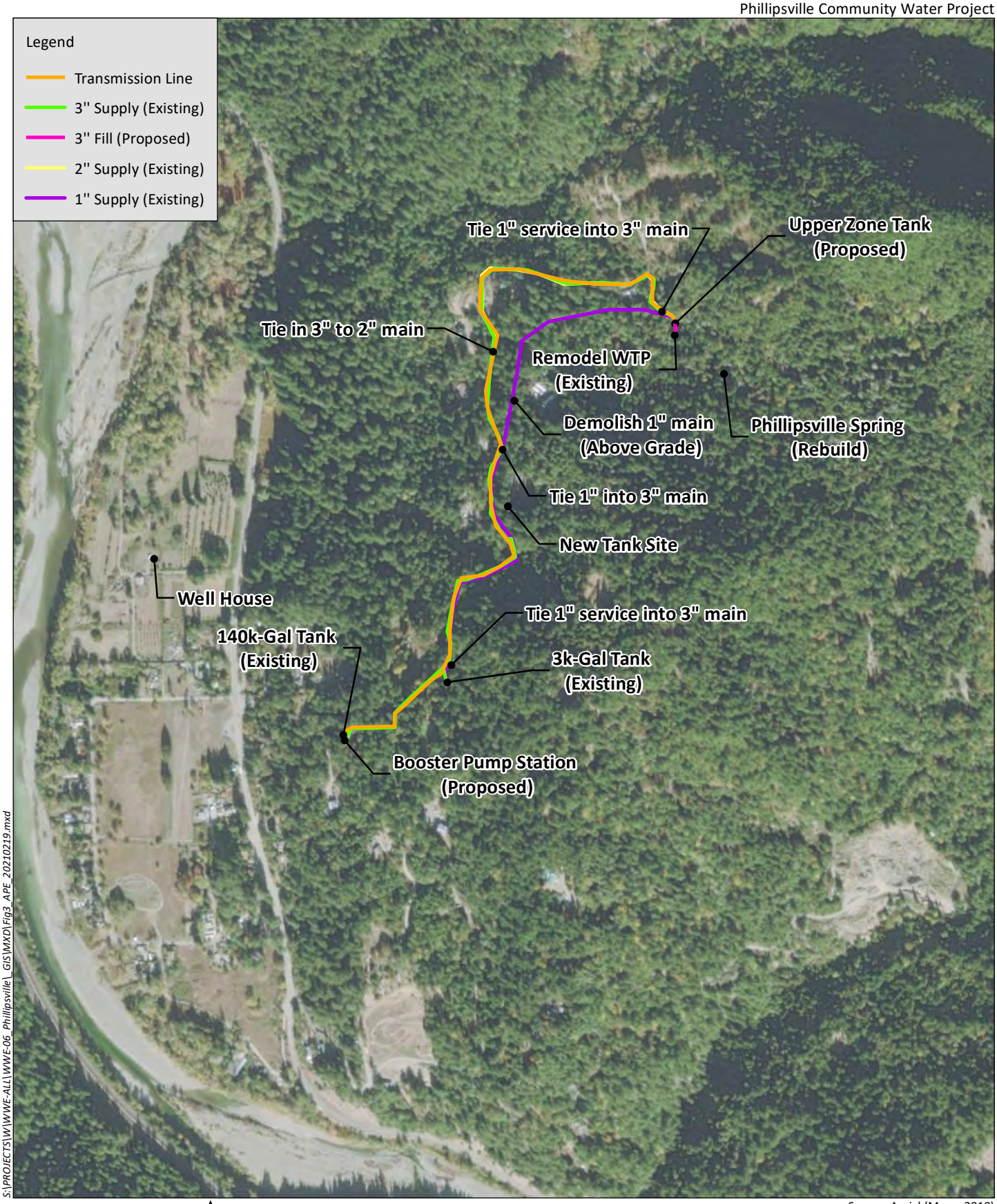
Source: USGS, 2021

HELIX Environmental Planning

Project Location Map

Figure 2



Source: Aerial (Maxar 2018)

HELIX Environmental Planning

Site Plan

Figure 3

Appendix B

Preliminary Engineering Report
(Water Works Engineers 2021)

Note: Document available electronically by contacting sheilam@wwengineers.com

Appendix C

Biological Resources Evaluation (HELIX Environmental Planning 2021a)

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February 24, 2021 Project # WWE-06

Sheila Magladry, P.E.
Water Works Engineers, LLC.
760 Cypress Avenue, Suite 201
Redding, CA 96001

Subject: Biological Resources Evaluation Letter Report for the Phillipsville Community Services District Water System Improvements Project, Humboldt County, CA

Dear Ms. Magladry,

HELIX Environmental Planning, Inc. (HELIX) has prepared this biological resources evaluation letter report for the proposed Phillipsville Community Services District (PCSD) Water System Improvements Project in the community of Phillipsville in Humboldt County, California. The purpose of our biological resources evaluation is to evaluate the potential for regionally occurring special-status plant and animal species and/or other sensitive biological habitats to occur in the project site and/or be impacted by the proposed project. This letter report has been prepared in support of California Environmental Quality Act (CEQA) documentation for the proposed project and describes the methods and results of our biological resources evaluation.

PROJECT LOCATION AND DESCRIPTION

The proposed project is located in the community of Phillipsville, California, in the southern portion of Humboldt County, approximately 8 miles north of Garberville. The project site is located in Sections 12 and 13, Township 3 South, Range 3 East, and Sections 7 and 18, Township 3 South, Range 4 East of the U.S. Geological Survey (USGS) 7.5-minute "Miranda, Ca" quadrangle map. The site is accessed by state highways 101 and 254 and is adjacent to the South Fork of the Eel River. The community of Phillipsville is bound to the north and south by Humboldt Redwoods State Park. Refer to **Figure 1** for a vicinity graphic of the project site and **Figure 2** for a location map of the project site. (Note: all figures are located in **Appendix A** for ease of reference).

The PCSD serves approximately 300 residents through 66 services connections. There are two water sources supplying the PCSD: a spring (which is influenced by surface water and is gravity fed to a portion of the system's customers) and a well (that supplies pumped water to the remaining customers). A potable water treatment system for the spring was installed in approximately 2012; the treatment system is adequate to meet surface water treatment standards, but there is inadequate chlorine contact time. The PCSD is currently under a boil water notice for not meeting sufficient chlorine contact time

requirements. In addition, the spring source is in jeopardy of potential land movement and at times (i.e., during the summer months) is inadequate to supply its customers. The proposed project includes an evaluation of the system conditions and an analysis of alternatives to improve drinking water supply and water quality. Figure 3 is a site plan.

Specific project improvements will include, but may not be limited to:

- Physical improvements to the existing groundwater spring, including regrading/recontouring of the surrounding surface and pipe gallery.
- Approximately 1-mile of surface roadway improvement to the unnamed spring access road, including grading and felled tree clearance.
- System improvements to the existing water treatment plant building, footprint, and piping.
- Installation of water storage facilities to increase system redundancy and to provide for necessary fire flows. Improvements include geotechnical engineering improvements to stabilize slopes, storage tank and appurtenances installation, and institutional controls.
- Minor modifications to existing distribution piping and trenching for new transmission main.
- Installation of a booster pump station in a small fiberglass container to provide for system redundancy.
- Improvements to the existing well and well house.

METHODS

Studies conducted in support of this report included a special-status species evaluation and a biological reconnaissance survey.

Special Status Species Evaluation

Regulations pertaining to the protection of biological resources at the project site are summarized in Attachment B. For the purposes of this report, special-status species are those that fall into one or more of the following categories, including those:

- Listed as endangered or threatened under the Federal Endangered Species Act (FESA; including candidates and species proposed for listing);
- Listed as endangered or threatened under the California Endangered Species Act (CESA; including candidates and species proposed for listing);
- Designated as rare, protected, or fully protected pursuant to California Fish and Game Code;
- Designated a Species of Special Concern (SSC) by the California Department of Fish and Wildlife (CDFW);
- Considered by CDFW to be a Watch List species with potential to become an SSC;
- Defined as rare or endangered under Section 15380 of the California Environmental Quality Act (CEQA); or,
- Having a California Rare Plant Rank (CRPR) of 1A, 1B, 2A, 2B, or 3.

In order to evaluate special-status species and/or their habitats with the potential to occur in the project site and/or be impacted by the proposed project, HELIX obtained lists of special-status species known to occur and/or having the potential to occur in the proposed project site and vicinity from the U.S. Fish

and Wildlife Service (USFWS; USFWS 2020), the California Native Plant Society (CNPS; CNPS 2020), and the California Natural Diversity Database (CNDDB; CDFW 2020). Attachment C includes these lists of special-status plant and animal species occurring in the project region and Attachment D includes an evaluation of the potential for these species to occur in the project site.

Reconnaissance Survey

A biological resources reconnaissance survey was conducted by HELIX Wildlife Biologist, Stephanie McLaughlin, M.S. on November 11, 2020 between the hours of 0900 and 1400 hours. Weather during the reconnaissance survey was foggy in the morning, eventually clearing in the afternoon, with temperatures ranging from 55 to 65 degrees Fahrenheit. A complete list of plant and animal species observed in the study area was prepared during the biological resources reconnaissance and is included as Attachment E. The project site was assessed to identify the habitat type(s) present and its potential to support special-status plant and wildlife species. The survey consisted of a pedestrian survey of the project site and the surrounding area.

RESULTS

Environmental Setting

The project site is located in rural, unincorporated Humboldt County. The majority of the study area is located on the east side of Phillipsville. Humboldt Redwoods State Park, an approximately 17,000-acre area of publicly accessible nature preserves managed by California State Parks, is located approximately 3-miles north of the project site. The South Fork of the Eel River passes along the west side of Phillipsville. Land uses including and surrounding the project site are in agricultural, residential agricultural, and timber use primarily, in addition to the Humboldt Redwoods State Park.

Site Conditions

The existing spring source collection system and associated pipe gallery and overflow tank are built into a hillside. Though the spring is contained within a pond liner and clay fill soil used for stabilization, the spring in jeopardy of potential land movement due to the high landslide risk in the area. The spring is accessed from the east by a heavily rutted dirt road off of Rock Pit Lane, which features a large gravel staging area at its terminus.

The water treatment plant (WTP) consists of a gravel pad featuring three 3,000-gallon water storage tanks and an associated water treatment building. The site is accessed via a steep gravel driveway off of Spring Canyon Road. All proposed alterations to the WTP are to remain within the current footprint of the WTP.

A 140,000-gallon water storage tank and associated infrastructure is located at the southern end of the project site, off of Ascending Lane. It is proposed that a booster pump station will be installed in a small building or enclosure in the foreground of the 140,000-gallon tank. An additional water storage tank is proposed to be installed on a site located off of Spring Canyon Road. The potential tank site is located on a graded, gravel pad covered in a geotextile tarp.

Water is transported to Phillipsville CSD residents via existing High Density Poly Ethylene (HDPE) pipes installed above ground. Any proposed additional HDPE lines will also be installed above grade.

A well serves as a secondary water source for the Phillipsville CSD. The well house and associated infrastructure is located in Phillipsville on the east side of the Avenue of the Giants Highway.

Topography

The project site has a diverse topographical profile. The topography of the project is roughly divided into two zones: a relatively flat plain adjacent to the South Fork Eel River and west of State Route 254, and steeply sloping hillsides east of State Route 254. Much of the hillsides are densely forested, with redwoods being common in the area. The project site consists of steeply sloping hillsides with graded flats for PCSD infrastructure. Elevations on the project site range from approximately 200 to 600 feet above Mean Sea Level (MSL).

Soils

The property includes three soil mapping units (NRCS 2020): Canoecreek-Coyoterock-Sproulish complex, 15 to 50 percent slopes; Canoecreek-Sproulish-Redwohly complex, 50 to 75 percent slopes, warm; and Sproulish-Canoecreek-Redwohly complex, 30 to 50 percent slopes. Hydric soils from the National Hydric Soils List for Humboldt County are not present (NRCS 2015).

Canoecreek-Coyoterock-Sproulish complex, 15 to 50 percent slopes occurs at mountain slopes and ridges and is a colluvium derived from sandstone and/or mudstone and/or residuum weathered from mudstone and/or sandstone. A typical profile is slightly decomposed plant material from 0 to 1 inches, gravelly loam from 1 to 4 inches, gravelly loam from 4 to 8 inches, very gravelly loam 8 to 16 inches, very gravelly loam from 16 to 37 inches and extremely gravelly sandy loam from 37 to 79 inches; the depth to water table is more than 80 inches. This soil mapping unit covers the majority of the project site.

Canoecreek-Sproulish-Redwohly complex, 50 to 75 percent slopes, warm occurs at mountain slopes and is a colluvium and residuum derived from sandstone, mudstone, and conglomerate. A typical profile is slightly decomposed plant material from 0 to 4 inches, very gravelly loam from 4 to 13 inches, very gravelly loam from 13 to 30 inches, very gravelly loam 30 to 47 inches, very gravelly loam from 47 to 61 inches and very gravelly loam from 61 to 71 inches; the depth to water table is more than 80 inches.

Sproulish-Canoecreek-Redwohly complex, 30 to 50 percent slopes occurs at mountain slopes and is a colluvium derived from mudstone and/or colluvium derived from sandstone and/or residuum weathered from mudstone and/or residuum weathered from sandstone. A typical profile is slightly decomposed plant material from 0 to 1 inches, moderately decomposed plant material from 1 to 2 inches, gravelly loam from 2 to 12 inches, loam 12 to 22 inches, clay loam from 22 to 35 inches, very paragravelly silty clay loam from 35 to 47 inches, and very paragravelly silty clay loam from 47 to 71 inches; the depth to water table is more than 80 inches.

Hydrology

The project site is in the Butte Creek-South Fork Eel River hydrologic unit (HUC12: 180101060405). There are no aquatic features on the project site; however, the South Fork of the Eel River passes along

the west side of Phillipsville and drainages that flow into the South Fork of the Eel River border the project site on the northern and southern sides.

Habitat Types/Vegetation Communities

There are two natural habitat types/vegetation communities on the site: developed and north coast coniferous forest. A list of all plant and animal species observed during the site reconnaissance is included as Attachment E. Representative site photographs taken on November 11, 2020 are included as Attachment F.

Developed

Developed areas in the project site include existing facilities and access roads as well as habitat along the dirt access roads and at the proposed tank locations. These areas are all moderately disturbed and are dominated by a mix of native and non-native species. Vegetation cover varies from sparse to moderate. Dominant shrubs include coyote bush (*Baccharis pilularis*), Himalayan blackberry (*Rubus armeniacus*), scotch broom (*Cytisus scoparius*), and hairy manzanita (*Arctostaphylos columbiana*). Herbaceous species consist of sweet vernal grass (*Anthoxanthum odoratum*), wild oats (*Avena fatua*), and dogtail grass (*Cynosurus echinatus*).

North Coast Coniferous Forest

This habitat is a tall dense, mixed needle-leaved evergreen forest in dense stands dominated by Douglas fir (*Pseudotsuga menziesii*) and interspersed with canyon live oak (*Quercus chrysolepis*), Pacific madrone (*Arbutus menziesii*), bigleaf maple (*Acer macrophyllum*), tanoak (*Notholithocarpus densiflorus*) and California bay (*Umbellularia californica*). Dominance by Douglas fir declines with age, but this may require centuries due to this species extreme longevity. Site factors include well-drained, moist sites that experience summer fog but very little winter snow fall. Precipitation ranges from 50 to 160 inches, with less than 10 percent falling in summer. The understory ranges from sparse with dense leaf litter and small woody debris, to moderately shrub-dominated with hairy honeysuckle (*Lonicera involucrata*), western sword fem (*Polystichum munitum*), Scotch broom (*Cytisus scoparius*) and Himalayan blackberry (*Rubus armeniacus*).

All of the project elements occur within or adjacent to north coast coniferous forest, which generally occurs at the edges of the developed habitat. The spring source is located within North Coast coniferous forest habitat. The spring is a subterranean feature that has been encased in a pond liner and outflows through a PVC pipe. Due to land movement there is some seepage from the spring source onto the soil surface, creating a moist environment without producing any aquatic features.

Special Status Species Evaluation

A total of 12 regionally occurring special-status plant species and 14 regionally occurring special-status wildlife species were identified during the database queries and desktop review and are evaluated in Attachment D.

Special Status Plant Species

A total of 12 regionally occurring special-status plant species were identified during the database queries and desktop review. The project site provides suitable habitat for two special-status plant species: white-flowered rein orchid and coast fawn lily. These species are discussed below. Special-status species determined to have no potential to occur on the project site or that are not expected to occur in the project site and be impacted by the proposed project (Attachment D) are not discussed further in this report.

White-flowered Rein Orchid

Federal status – none
State status – none
Other status – CRPR 1B.2

Species Description

White-flowered rein orchid is a perennial herb that occurs in broadleaved upland forests, lower montane coniferous forests, and North Coast coniferous forests, sometimes on serpentinite. This species is found in forest duff, on mossy banks, rock outcrops, and muskeg at elevations ranging from 30 – 1310 meters above mean sea level. White-flowered rein orchid blooms from May-September (sometimes March) (CNPS 2020).

Survey History

No known surveys have been conducted within the project site for this species and the biological reconnaissance survey was conducted outside of the blooming season. There are four reported occurrences of white-flowered rein orchid on the Miranda USGS quad. The closest reported occurrences are approximately 4,000 feet west of the site. All of the occurrences are west of the South Fork Eel River.

Habitat Suitability

Suitable habitat occurs within the north coast coniferous forest on the project site, likely restricted to the area around the spring site.

Potential for Impacts

Although white-flowered rein orchid is not known to occur in the project site there is a potential that it could occur due to the presence of suitable habitat. If this plant species were to occur in the project site, project activities would have the potential to result in adverse impacts. Adverse impacts could occur if mechanical equipment or workers directly crushed, trampled, or uprooted sensitive plants and indirect impacts could occur through soil compaction, alteration of hydrology, and increased erosion and sedimentation resulting from ground disturbance.

The recommended mitigation measures for special-status plants in the following section would reduce potential impacts to this species to less than significant.

Coast Fawn Lily

Federal status – none
State status – none
Other status – CRPR 2B.2

Species Description

Coast fawn likely is a perennial bulbiferous herb found on mesic soils and streambanks in bogs and fens, broadleafed upland forest, and North Coast coniferous forest from 0 - 1600 meters above mean sea level. Coast fawn lily blooms March – July (occasionally August). Associated species include Douglas fir, tanoak, and Pacific madrone (CNPS 2020).

Survey History

No known surveys have been conducted within the project site for this species and the biological reconnaissance survey was conducted outside of the blooming season. There is one reported occurrence of coast fawn lily on the Miranda USGS quad. This occurrence is located approximately 2 miles north of the site in a streambank along Fish Creek. The area is in commercial timber production.

Habitat Suitability

Suitable habitat occurs within the north coast coniferous forest on the project site, likely restricted to the area around the spring site.

Potential for Impacts

Although coast fawn lily is not known to occur in the project site there is a potential that it could occur due to the presence of suitable habitat. If this plant species were to occur in the project site, project activities would have the potential to result in adverse impacts. Adverse impacts could occur if mechanical equipment or workers directly crushed, trampled, or uprooted sensitive plants and indirect impacts could occur through soil compaction, alteration of hydrology, and increased erosion and sedimentation resulting from ground disturbance.

The recommended mitigation measures for special-status plants in the following section would reduce potential impacts to this species to less than significant.

Special Status Animal Species

A total of 14 regionally occurring special-status wildlife species were identified during the database searches and desktop review. There are no reported occurrences of special-status animal species on or immediately adjacent to the site. The site provides suitable habitat for one special-status wildlife species: Cooper's hawk as well as habitat for other migratory birds and raptors. These species are discussed briefly below. In addition, although there is no habitat on the project site for either species, northern spotted owl and marbled murrelet are discussed due to the presence of reported occurrences within 0.25 mile of the project site (northern spotted owl) and designated Critical Habitat in the project site (marbled murrelet). The remaining special-status species determined to have no potential to occur

on the project site or that are not expected to occur in the project site and be impacted by the proposed project (Attachment D) are not discussed further in this report.

Special-status Birds

Cooper's Hawk

Federal status – none
State status – CDFW watch list
Other status – none

Species Description

Cooper's hawk inhabits open woodlands or forest edges, where it can hunt birds in flight. Nests sites are mainly in riparian stands of deciduous trees, such as are found in canyon bottoms and flood plains, and in live oak trees.

Survey History

Cooper's hawk was not observed in the project site during the biological reconnaissance survey. There is one reported occurrence of Cooper's hawk on the Miranda quad; this reported occurrence is approximately 2 miles north of the site where this species was observed in 2005.

Habitat Suitability

North coast coniferous forest in the project site provides some suitable nesting habitat for Cooper's hawk. This species could also forage in the project site.

Potential for Impacts

Foraging hawks are highly mobile and would move away from any disturbance associated with the project activities and would not be affected. If Cooper's hawk were to nest in the project site, project activities such as grading or downed tree removal during the breeding season (February 1 through August 31) could result in injury or mortality of eggs and chicks directly through destruction or indirectly through forced nest abandonment due to noise and other disturbance.

The recommended mitigation measures for migratory birds and raptors in the following section would reduce potential impacts to this species to less than significant.

Northern Spotted Owl

Federal status – Threatened
State status – none
Other status – CDFW Species of Special Concern

Species Description

Northern spotted owl lives in old-growth coniferous forests and rocky canyons, preferring mature forests with large, old trees, multiple canopy layers, and downed woody debris. In the Sierra Nevada the spotted owl is found in Sierran mixed conifer forests at mid-elevations and ponderosa pine forests, blue oak-gray pine woodlands, and valley foothill riparian forests at lower elevations (Shuford and Gardali 2008). Spotted owls also inhabit old growth coastal coniferous forest. Suitable habitat for northern spotted owl consists of dense, multilayer, mature forest with greater than 70 percent canopy closure preferred for nesting and greater than 50 percent canopy closure preferred for foraging (Verner et al. 1992). Nests are placed in tree cavities, broken-topped trees, and platforms, such as abandoned raptor or squirrel nests. Adults do not build their own nests (Zeiner et al. 1990).

Survey History

No northern spotted owl or potential nests for this species were observed in the project site during the biological reconnaissance survey. There is a reported occurrence of northern spotted owl approximately 0.25 mile east of the project site where this species was observed nesting in 2000. The northern spotted owl activity center includes a nest sighting and a sighting of a pair of northern spotted owls.

Habitat Suitability

The north coast coniferous forest in the project site does not provide suitable nesting habitat for northern spotted owl. The project site lacks dense, mature, multi-layer old growth forest and is disturbed.

Potential for Impacts

No impacts to northern spotted owl are anticipated as a result of the proposed project. Suitable nesting habitat is not present in or adjacent to the project site. Project activities would not be expected to disrupt northern spotted owl activity centers east of the site due to the limited ground disturbance and nature of the activity. Pre-construction surveys will be conducted for migratory birds and raptors. If northern spotted owl is observed, coordination will be conducted with USFWS and CDFW to determine the appropriate nest buffer based on the location of the nest and the type of construction activity occurring within 0.25 mile of the nest.

The recommended mitigation measures for migratory birds and raptors in the following section would reduce potential impacts to this species to less than significant.

Marbled Murrelet

Federal status – Threatened
State status – Endangered
Other status – None

Species Description

This species is pelagic, except during nesting season where it will use old-growth, multi-layered canopied forests up to 50 miles inland from the coast. When nesting trees are not present, this species will nest

on the ground or amongst rocks. In California, nesting typically occurs in coastal redwood forest or Douglas fir forests (USFWS 2016).

Survey History

No marbled murrelet or potential nest sites for this species were observed in the project site during the biological reconnaissance survey. There are no reported occurrences of marbled murrelet on the Miranda USGS quad. The closest reported occurrence of marbled murrelet in the CNDDB is approximately 7.5 miles northwest of the site along the southern boundary of Humboldt Redwoods State Park.

Habitat Suitability

The north coast coniferous forest in the project site does not provide suitable nesting habitat for marbled murrelet. The project site lacks dense, mature, multi-layer old growth forest and is disturbed. The very northern portion of the project site along Spring Canyon Road overlaps designated Critical Habitat for this species; however, the site lacks the primary constituent elements of critical habitat including old growth trees with the presence of deformities and/or large branches to use as a nesting platform.

Potential for Impacts

No impacts to marbled murrelet or designated Critical Habitat are anticipated as a result of the proposed project. Suitable nesting habitat is not present in or adjacent to the project site. No tree removal is anticipated to occur within designated Critical Habitat. Pre-construction surveys will be conducted for migratory birds and raptors. If marbled murrelet is observed, coordination will be conducted with USFWS and CDFW to determine the appropriate nest buffer based on the location of the nest and the type of construction activity occurring within proximity to the nest.

The recommended mitigation measures for migratory birds and raptors in the following section would reduce potential impacts to this species to less than significant.

Migratory Birds and Raptors

As noted in Attachment B, migratory and non-game birds are protected during the nesting season by California Fish and Game Code. The project site and immediate vicinity provides nesting and foraging habitat for a variety of native birds such as mourning dove (*Zenaida macroura*), black phoebe (*Sayornis nigricans*), and northern flicker (*Colaptes auratus*). Nests were not observed during surveys; however, the survey was conducted outside of the bird nesting season and a variety of migratory birds have the potential to nest in and adjacent to the site, in trees, shrubs and on the ground in vegetation.

Project activities such as clearing and grubbing during the avian breeding season (February 1 through August 31) could result in injury or mortality of eggs and chicks directly through destruction or indirectly through forced nest abandonment due to noise and other disturbance. Needless destruction of nests, eggs, and chicks would be a violation of the Fish and Game Code and a significant impact.

The recommended mitigation measures for nesting migratory birds and raptors in the following section would reduce potential impacts to these species to less than significant.

RECOMMENDED MITIGATION MEASURES

Special-Status Plants

Prior to any construction-related ground disturbance occurring in areas of suitable habitat for special-status plants, focused surveys shall be completed to determine the presence or absence of these species on the project site. The surveys shall be floristic in nature and shall be seasonally timed to coincide with the blooming period of these species (May to September; white-flowered rein orchid) and (March to July; coast fawn lily). If special-status species are not found during the focused surveys, then no further action is required.

- If special-status plants are documented on the site, a report shall be submitted to CNDDB to document the status of the species on the site. If the project is designed to avoid impacts to special-status plant individuals and habitat, no further mitigation for these species would be necessary.

- If special-status plants are documented on the site and project impacts to these species are anticipated, consultation with CDFW shall be conducted to develop a mitigation strategy. The proponent shall notify CDFW, providing a complete description of the location, size, and condition of the occurrence, and the extent of proposed direct and indirect impacts to it. The project proponent shall comply with any mitigation requirements imposed by CDFW. Mitigation requirements could include but are not limited to, development of a plan to relocate the special-status plants (seed) to a suitable location outside of the impact area and monitoring the relocated population to demonstrate transplant success or preservation of this species or its habitat at an on or offsite location.

Migratory Birds and Raptors

If project activities such as vegetation removal activities commence during the avian breeding season (February 1 – August 31), a qualified biologist should conduct a pre-construction nesting bird survey no more than 7 days prior to initiation of project activities. The survey area should include suitable raptor nesting habitat within 500 feet of the project boundary (inaccessible areas outside of the project site can be surveyed from the site or from public roads using binoculars or spotting scopes). Pre-construction surveys are not required in areas where project activities have been continuous since prior to February 1, as determined by a qualified biologist. Areas that have been inactive for more than 14 days during the avian breeding season must be re-surveyed prior to resumption of project activities. If no active nests are identified, no further mitigation is required. If active nests are identified, the following measure should be implemented:

- A suitable buffer (e.g. northern spotted owl and marbled murrelet – coordinate with USFWS and CDFW; 300 feet for common raptors; 100 feet for non-raptors) should be established by a qualified biologist around active nests and no construction/decommissioning activities within the buffer should be allowed until a qualified biologist has determined that the nest is no longer active (i.e. the nestlings have fledged and are no longer reliant on the nest, or the nest has failed). Encroachment into the buffer may occur at the discretion of a qualified biologist. Any encroachment into the buffer should be monitored by a qualified biologist to determine whether nesting birds are being impacted.

CONCLUSION

Under contract with Water Works Engineers, HELIX conducted a biological site assessment to evaluate potential impacts to sensitive biological resources that could occur as a result of the PCSD Water System Improvements Project in the unincorporated community of Phillipsville, Humboldt County, California. No special-status species were documented on the site. Two special-status plant species and one special-status raptor species have the potential to occur on the project site and/or be impacted by the proposed project. In addition, nesting raptors and other migratory birds were determined to have the potential to occur in the project site and/or be impacted by the proposed project. Recommended avoidance and minimization measures are provided to avoid/reduce impacts to these species.

We appreciate the opportunity to assist you on this project. Please contact me with any questions at 916-365-8700.

Sincerely,

Stephen Stringer, M.S.
Principal Biologist

Attachments:

A – Figures
B – Regulatory Context
C – Database Query Results
D – Potential for Regionally Occurring Special-status Species
E – Species Observed on the Property
F – Site Photographs

REFERENCES

Courtney, Stephen P. et al. (2004). Scientific Evaluation of the Status of the Northern Spotted Owl. Portland, Oregon: Sustainable Ecosystems Institute.

Hayes, M.P. and Hayes, C.B. 2003. Rana aurora aurora (Northern Red-legged Frog). Juvenile growth. Male size at maturity. Herpetological Review 34:233-234.

Hughes, J.M. 1999. Yellow billed cuckoo (*Coccyzus americanus*). in The birds of North America, No. 418 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA. 28 pp.

Hunter, J. E., D. Fix, G. A. Schmidt, and J. C. Power. (2005). Atlas of the Breeding Birds of Humboldt County, California. Seattle: Reischling Press, Inc. pp. 440.

Shuford, W.D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.

Stebbins, Robert C., and McGinnis, Samuel M. Field Guide to Amphibians and Reptiles of California: Revised Edition (California Natural History Guides) University of California Press, 2012.

U.S. Fish and Wildlife Service (USFWS). 1995. Sacramento – San Joaquin Delta Native Fishes Recovery Plan. U.S. Fish and Wildlife Service, Portland, OR.

_____. 2002. Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, Oregon. viii + 173 pp.

_____.2016. Endangered and Threatened Wildlife and Plants: Revised Designation of Critical Habitat for the Marbled Murrelet; Final Rule. Federal Register Vol. 81, No. 150 August 4, 2016.

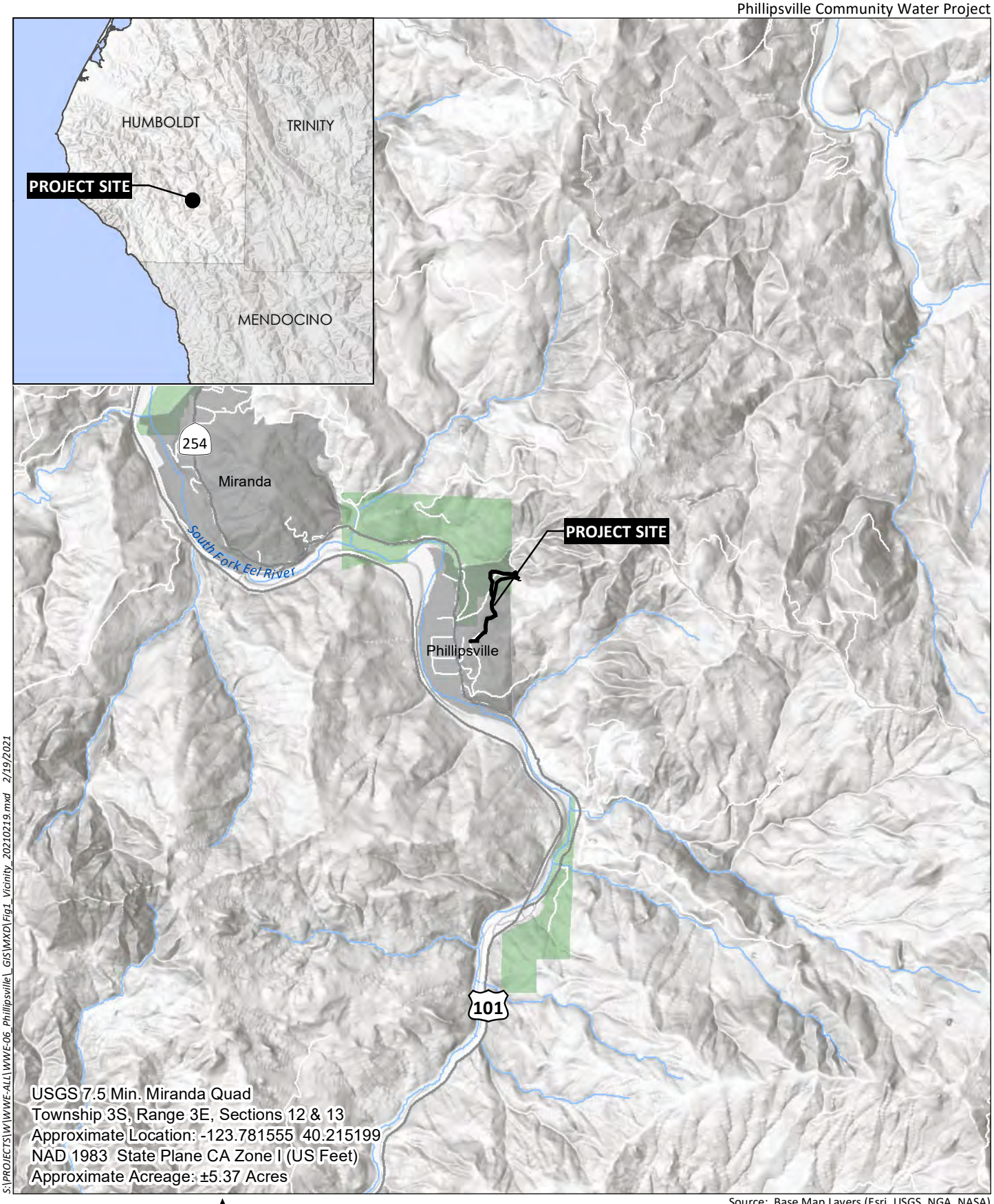
Verner, J.; McKelvey, K.S.; Noon, B.R.; Gutiérrez, R.J.; Gould, G.I., Jr.; Beck, T.W., eds. 1992. The California spotted owl: a technical assessment of its current status. Gen. Tech. Rep. PSW-GTR-133. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 285 p.

Welsh and Karraker. (2005). Rhyacotriton variegates (Southern Torrent Salamander) in Amphibian Declines, The Conservation Status of United States Species. NR:NR.

Zeiner, D. C., W. F. Laudenslayer, and K. E. Mayer (eds.). 1990. California's wildlife. Volume II: Birds. California Statewide Wildlife Habitat Relationships System. Sacramento, CA: California Department of Fish and Game.

Attachment A

Figures



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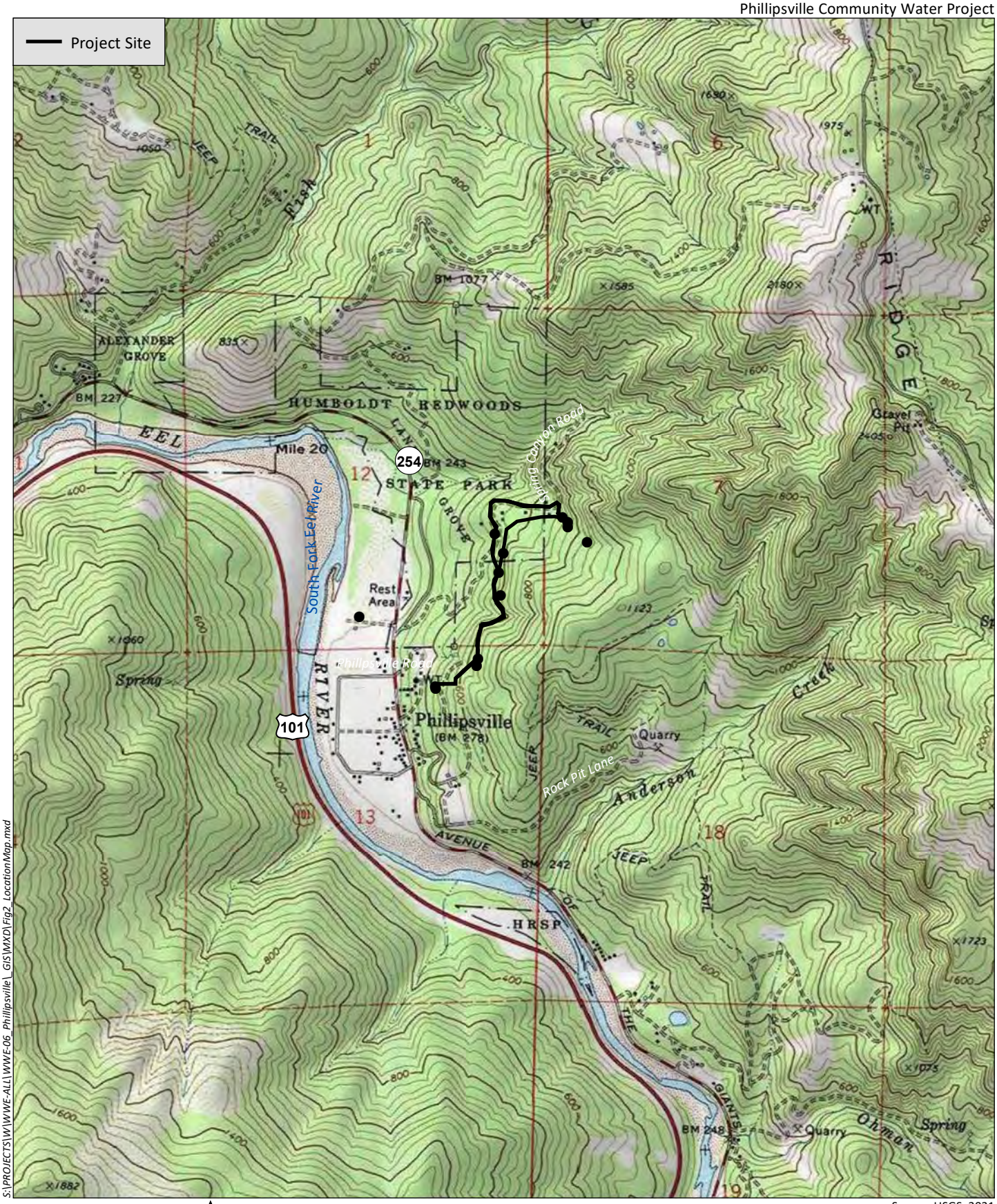
Source: Base Map Layers (Esri, USGS, NGA, NASA)

HELIX Environmental Planning

Vicinity Map

Figure 1



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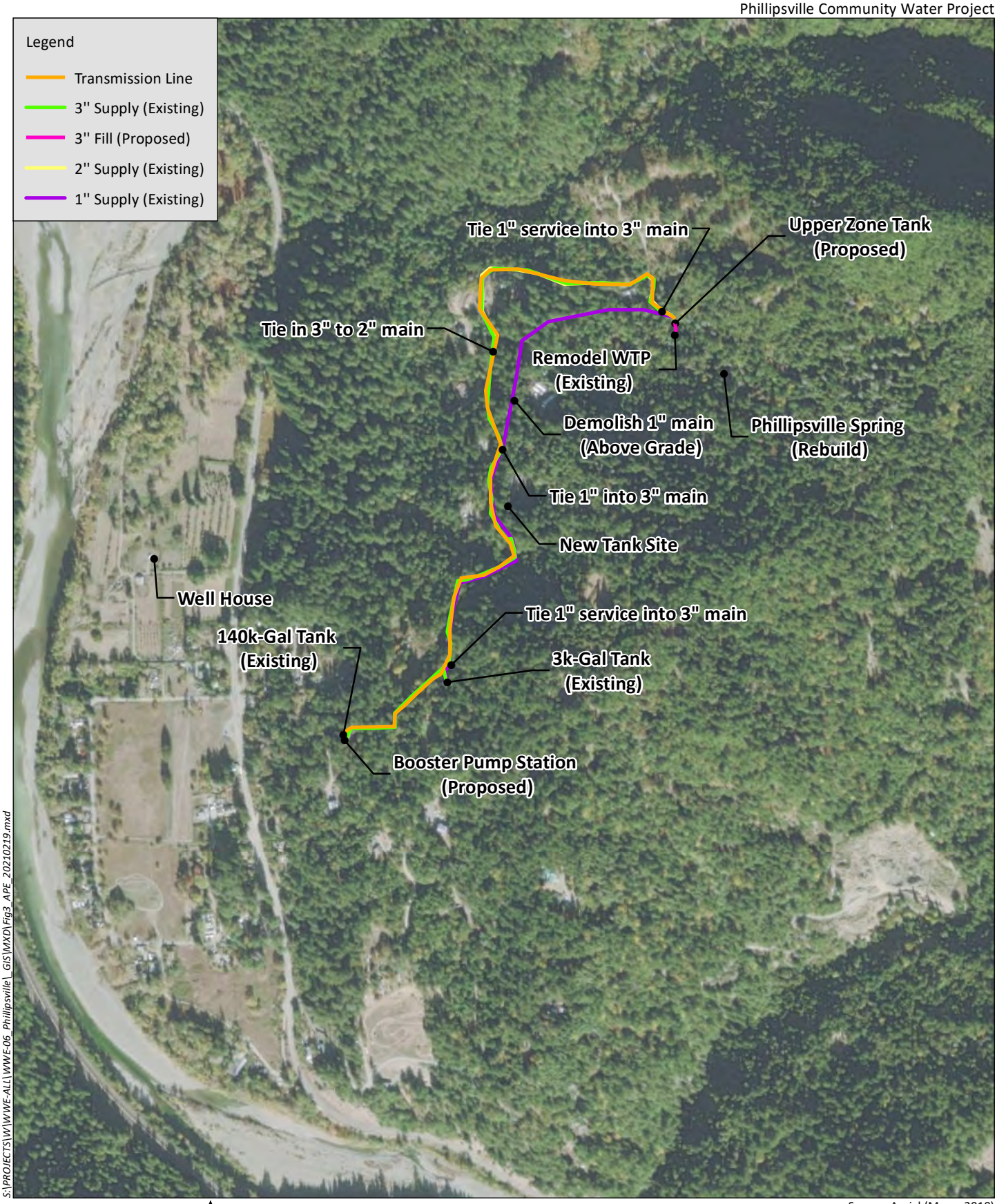
Source: USGS, 2021

HELIX Environmental Planning

Project Location Map

Figure 2



Source: Aerial (Maxar 2018)

HELIX Environmental Planning

Site Plan

Figure 3

Attachment B

Regulatory Context

Regulatory Setting

Policies, regulations, and plans pertaining to the protection of biological resources on the project site are summarized in the following sections.

Federal Requirements

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) enforces the provisions stipulated within the Federal Endangered Species Act of 1973 (FESA; 16 USC 1531 *et seq*.). Species identified as federally threatened or endangered (50 CFR 17.11, and 17.12) are protected from take, defined as direct or indirect harm, unless a Section 10 permit is granted to an entity other than a federal agency or a Biological Opinion with incidental take provisions is rendered to a federal lead agency via a Section 7 consultation. Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally-listed species may be present in the study area and determine whether the proposed project will jeopardize the continued existence of or result in the destruction or adverse modification of critical habitat of such species (16 USC 1536 (a)[3], [4]). Other federal agencies designate species of concern (species that have the potential to become listed), which are evaluated during environmental review under the National Environmental Protection Act (NEPA) or California Environmental Quality Act (CEQA) although they are not otherwise protected under FESA.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 established federal responsibilities for the protection of nearly all species of birds, their eggs, and nests. The Migratory Bird Treaty Reform Act of 2004 further defined species protected under the act and excluded all non-native species. Section 16 U.S.C. 703–712 of the Act states "unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill" a migratory bird. A migratory bird is any species or family of birds that live, reproduce or migrate within or across international borders at some point during their annual life cycle. Currently, there are 836 migratory birds protected nationwide by the Migratory Bird Treaty Act, of which 58 are legal to hunt. The U.S. Court of Appeals for the 9th Circuit (with jurisdiction over California) has ruled that the MBTA does not prohibit incidental take (952 F 2d 297 – Court of Appeals, 9th Circuit 1991).

Clean Water Act

Any person, firm, or agency planning to alter or work in waters of the U.S., including the discharge of dredged or fill material, must first obtain authorization from the U.S. Army Corps of Engineers (USACE) under the Clean Water Act (CWA; 33 USC 1344). Permits, licenses, variances, or similar authorization may also be required by other federal, state, and local statutes. Section 10 of the Rivers and Harbors Act prohibits the obstruction or alteration of navigable waters of the U.S. without a permit from USACE (33 USC 403).

Waters of the U.S. include certain wetlands; wetlands are defined in 33 CFR Part 328 as:

"those areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

Section 401 of the CWA requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the U.S. also obtain a state certification that the discharge complies with all applicable water quality standards, limitations, and restrictions. The Regional Water Quality Control Board (RWQCB) administers the certification program in California and no license or permit may be issued until certification has been granted.

Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the U.S.

Section 404 establishes a permit program administered by USACE that regulates the discharge of dredged or fill material into waters of the U.S. (including wetlands). Implementing regulations by USACE are found at 33 CFR Parts 320-332. The Section 404 (b)(1) Guidelines were developed by the USEPA in conjunction with USACE (40 CFR Part 230), allowing the discharge of dredged or fill material for non-water dependent uses into special aquatic sites only if there is no practicable alternative that would have less adverse impacts.

State Requirements

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code Sections 2050 to 2097) is similar to the FESA. The California Fish and Wildlife Commission is responsible for maintaining lists of threatened and endangered species under CESA. CESA prohibits the take of listed and candidate (petitioned to be listed) species. "Take" under California law means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch capture, or kill (California Fish and Game Code, Section 86). The California Department of Fish and Wildlife (CDFW) can authorize take of a state-listed species under Section 2081 of the California Fish and Game Code if the take is incidental to an otherwise lawful activity, the impacts are minimized and fully mitigated, funding is ensured to implement and monitor mitigation measures, and CDFW determines that issuance would not jeopardize the continued existence of the species. A CESA permit must be obtained if a project will result in the "take" of listed species, either during construction or over the life of the project. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

California Code of Regulations Title 14 and California Fish and Game Code

The official listing of endangered and threatened animals and plants is contained in the California Code of Regulations Title 14 §670.5. A state candidate species is one that the California Fish and Game Code has formally noticed as being under review by CDFW to include in the state list pursuant to Sections 2074.2 and 2075.5 of the California Fish and Game Code.

Legal protection is also provided for wildlife species in California that are identified as "fully protected animals." These species are protected under Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species at any time. CDFW is unable to authorize incidental take of fully

protected species unless any such take authorization is issued in conjunction with the approval of a Natural Community Conservation Plan that covers the fully protected species (California Fish and Game Code Section 2835).

California Environmental Quality Act

Under the California Environmental Quality Act of 1970 (CEQA; Public Resources Code Section 21000 *et seq*.), lead agencies analyze whether projects would have a substantial adverse effect on a candidate, sensitive, or special-status species (Public Resources Code Section 21001(c)). These "special-status" species generally include those listed under FESA and CESA, and species that are not currently protected by statute or regulation, but would be considered rare, threatened, or endangered under the criteria included CEQA Guidelines Section 15380. Therefore, species that are considered rare are addressed under CEQA regardless of whether they are afforded protection through any other statute or regulation. The California Native Plant Society (CNPS) inventories the native flora of California and ranks species according to rarity; plants ranked as 1A, 1B, 2A, 2B, and 3 are generally considered special-status species under CEQA.[1]

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare if it can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals. Section 15380(d) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (*i.e.*, candidate species) would occur.

California Native Plant Protection Act

The California Native Plant Protection Act of 1977 (California Fish and Game Code Sections 1900-1913) empowers the Fish and Game Commission to list native plant species, subspecies, or varieties as endangered or rare following a public hearing. To the extent that the location of such plants is known, CDFW must notify property owners that a listed plant is known to occur on their property. Where a property owner has been so notified by CDFW, the owner must notify CDFW at least 10 days in advance of any change in land use (other than changing from one agricultural use to another), in order that CDFW may salvage listed plants that would otherwise be destroyed. Currently, 64 taxa of native plants have been listed as rare under the act.

Nesting Birds

California Fish and Game Code Subsections 3503 and 3800 prohibit the possession, take, or needless destruction of birds, their nests, and eggs, and the salvage of dead nongame birds. California Fish and Game Code Subsection 3503.5 protects all birds in the orders of Falconiformes and Strigiformes (birds of prey). Fish and Game Code Subsection 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act. The Attorney General of California has released an opinion that the Fish and Game Code prohibits incidental take.

[1] The California Rare Plant Rank system can be found online at < http://www.cnps.org/cnps/rareplants/ranking.php>

Porter-Cologne Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act, Water Code Section 13000 *et seq*.) is California's statutory authority for the protection of water quality in conjunction with the federal CWA. The Porter-Cologne Act requires the State Water Resources Control Board (SWRCB) and RWQCBs under the CWA to adopt and periodically update water quality control plans, or basin plans. Basin plans are plans in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The Porter-Cologne Act also requires dischargers of pollutants or dredged or fill material to notify the RWQCBs of such activities by filing Reports of Waste Discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, National Pollution Discharge Elimination System (NPDES) permits, Section 401 water quality certifications, or other approvals. The RWQCB will assert jurisdiction over any waters of the state, including wetlands, regardless of whether or not the feature qualifies as waters of the U.S.

California Fish and Game Code Section 1602 – Lake and Streambed Alteration Program

Diversions or obstructions of the natural flow of, or substantial changes or use of material from the bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by CDFW, pursuant to Section 1602 of the California Fish and Game Code. The CDFW requires notification prior to commencement of any such activities, and a Streambed Alteration Agreement (SAA) pursuant to Fish and Game Code Sections 1601-1603, if the activity may substantially adversely affect an existing fish or wildlife resource. A lake under CDFW jurisdiction is defined as "a permanent natural body of water of any size or an artificially impounded body of water of at least one acre, isolated from the sea, and having an area of open water of sufficient depth and permanency to prevent complete coverage by rooted aquatic plants" (CCR Vol. 18 Title 14, Section 1562.1). Streambeds within CDFW jurisdiction are based on the definition of a stream as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life" (CCR Vol. 18 Title 14, Section 1.72).

Attachment C

Database Query Results

CNPS California Native Plant Society

*The database used to provide updates to the Online Inventory is under construction. View updates and changes made since May 2019 here.

Plant List

7 matches found. *Click on scientific name for details*

Search Criteria

Found in Quad 4012327

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Astragalus agnicidus	Humboldt County milk-vetch	Fabaceae	perennial herb	Apr-Sep	1B.1	S2	G2
Erythronium revolutum	coast fawn lily	Liliaceae	perennial bulbiferous herb	Mar-Jul(Aug)	2B.2	S3	G4G5
Kopsiopsis hookeri	small groundcone	Orobanchaceae	perennial rhizomatous herb (parasitic)	Apr-Aug	2B.3	S1S2	G4?
Lilium rubescens	redwood lily	Liliaceae	perennial bulbiferous herb	Apr-Aug(Sep)	4.2	S3	G3
Listera cordata	heart-leaved twayblade	Orchidaceae	perennial herb	Feb-Jul	4.2	S4	G5
Montia howellii	Howell's montia	Montiaceae	annual herb	(Jan-Feb)Mar-May	2B.2	S2	G3G4
Piperia candida	white-flowered rein orchid	Orchidaceae	perennial herb	(Mar)May-Sep	1B.2	S3	G3

Suggested Citation

California Native Plant Society, Rare Plant Program. 2021. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 24 February 2021].

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Advanced Search
Glossary

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About the Rare Plant Program
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Contributors
The Calflora Database
The California Lichen Society
California Natural Diversity Database
The Jepson Flora Project
The Consortium of California Herbaria
CalPhotos

Questions and Comments
rareplants@cnps.org

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Myers Flat (4012337) OR Miranda (4012327) OR Blocksburg (4012336) OR Fort Seward (4012326))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Astragalus agnicidus Humboldt County milk-vetch	PDFAB0F080	None	Endangered	G2	S2	1B.1
Bombus caliginosus obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
Empidonax traillii brewsteri little willow flycatcher	ABPAE33041	None	Endangered	G5T3T4	S1S2	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Erythronium oregonum giant fawn lily	PMLIL0U0C0	None	None	G4G5	S2	2B.2
Erythronium revolutum coast fawn lily	PMLIL0U0F0	None	None	G4G5	S3	2B.2
Falco peregrinus anatum American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
Gilia capitata ssp. pacifica Pacific gilia	PDPLM040B6	None	None	G5T3	S2	1B.2
Howellia aquatilis water howellia	PDCAM0A010	Threatened	None	G3	S2	2B.2
Kopsiopsis hookeri small groundcone	PDORO01010	None	None	G4?	S1S2	2B.3
Montia howellii Howell's montia	PDPOR05070	None	None	G3G4	S2	2B.2
Navarretia leucocephala ssp. bakeri Baker's navarretia	PDPLM0C0E1	None	None	G4T2	S2	1B.1
Noyo intersessa Ten Mile shoulderband	IMGASC5070	None	None	G2	S2	
Packera bolanderi var. bolanderi seacoast ragwort	PDAST8H0H1	None	None	G4T4	S2S3	2B.2
Pandion haliaetus osprey	ABNKC01010	None	None	G5	S4	WL

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Pekania pennanti Fisher	AMAJF01020	None	None	G5	S2S3	SSC
Piperia candida white-flowered rein orchid	PMORC1X050	None	None	G3	S3	1B.2
Rana aurora northern red-legged frog	AAABH01021	None	None	G4	S3	SSC
Rana boylii foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
Rhyacotriton variegatus southern torrent salamander	AAAAJ01020	None	None	G3G4	S2S3	SSC
Sidalcea malachroides maple-leaved checkerbloom	PDMAL110E0	None	None	G3	S3	4.2
Sidalcea malviflora ssp. patula Siskiyou checkerbloom	PDMAL110F9	None	None	G5T2	S2	1B.2
Tracyina rostrata beaked tracyina	PDAST9D010	None	None	G2	S2	1B.2
Usnea longissima Methuselah's beard lichen	NLLEC5P420	None	None	G4	S4	4.2

Record Count: 28

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Humboldt County, California

Local office

Arcata Fish And Wildlife Office

(707) 822-7201
(707) 822-8411

1655 Heindon Road
Arcata, CA 95521-4573

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS

Marbled Murrelet Brachyramphus marmoratus — Threatened
There is **final** critical habitat for this species. Your location overlaps the critical habitat.
https://ecos.fws.gov/ecp/species/4467

Northern Spotted Owl Strix occidentalis caurina — Threatened
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/1123

Western Snowy Plover Charadrius nivosus nivosus — Threatened
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/8035

Yellow-billed Cuckoo Coccyzus americanus — Threatened
There is **proposed** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/3911

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
Marbled Murrelet Brachyramphus marmoratus https://ecos.fws.gov/ecp/species/4467#crithab	Final

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Great Blue Heron Ardea herodias fannini This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 15 to Aug 15

Olive-sided Flycatcher Contopus cooperi This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Rufous Hummingbird selasphorus rufus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds Apr 15 to Jul 15
Western Screech-owl Megascops kennicottii kennicottii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 1 to Jun 30

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Western Screech-owl
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

- R3USA
- R4SBA

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Attachment D

Potential for Regionally Occurring Special Status Species

Species Name/ Common Name[1]	Status[2]	Habit, Ecology and Life History	Potential to Occur
Plants			
Astragalus agnicidus Humboldt County milk-vetch	--/SE/1B.1	A perennial herb found in openings, disturbed areas, sometimes roadsides in broadleafed upland forest and North Coast coniferous forest from 120 – 800 meters elevation. Blooms March - June (July). Known from only two sites near Miranda, CA. Microsite habitat characteristics include disturbed openings in partially timbered forest lands, also along ridgelines and on southern aspects (CNPS 2020).	**Will not occur.** While there is North Coast coniferous forest on the project site, there are no suitable open areas for this species and the project site is well outside of this species known range. This species is only known from two locations. The nearest extant occurrence is 4.2 miles west of the project site; the second site is located 12.4 miles north of the project site (CNDDB 2020.
Erythronium oregonum giant fawn lily	--/--/2B.2	A perennial rhizomatous herb found in serpentinite, rocky, openings in cismontane woodlands, meadows and seeps from 100 - 1150 meters elevation. Blooms from May – July (CNPS 2020).	**Will not occur.** There are no suitable woodland, meadow or seep habitats on the project site.
Erythronium revolutum coast fawn lily	--/--/2B.2	A perennial bulbiferous herb found on mesic soils and streambanks in bogs and fens, broadleafed upland forest, and North Coast coniferous forest from 0 - 1600 meters elevation. Blooms March – July (August). Associated species include Douglas fir, tanoak, and Pacific madrone (CNPS 2020).	**May occur.** Suitable habitat for this species is present in north coast coniferous forest habitat in the project site, primarily around the spring site. The nearest extant occurrence is 2 miles north along Fish Creek (CNDDB 2020).
Gilia capitata ssp. *pacifica* Pacific gilia	--/--/1B.2	An annual herb found in coastal bluff scrub, chaparral openings, coastal prairies, and valley and foothill grassland from 5 – 1665 meters elevation. Blooms April – August (CNPS 2020).	**Will not occur.** There are no suitable scrub, chaparral, prairie or grassland habitats on the project site.

Species Name/ Common Name[1]	Status[2]	Habit, Ecology and Life History	Potential to Occur
Howellia aquatilis water howellia	FT/--/2B.2	An annual aquatic herb found in freshwater marshes and swamps from 1085 - 1290 meters elevation. Blooms June (CNPS 2020).	**Will not occur.** There are no suitable aquatic habitats on the project site.
Kopsiopsis hookeri small groundcone	--/--/2B.3	A parasitic perennial rhizomatous herb found in North Coast coniferous forest from 90 – 885 meters elevation. Blooms April – August. Microsite habitat characteristics include shrubby places in open woods, generally found on salal (*Gaultheria shallon*) (CNPS 2020).	**Will not occur.** Although there is North Coast coniferous forest on the project site, the primary host plant, salal, was not observed on the site. The nearest extant occurrence is 4.6 miles northwest within a timber harvest unit (CNDDB 2020).
Montia howellii Howell's montia	--/--/2B.2	An annual herb found on vernally mesic soils in vernal pools, north coast coniferous forest, meadows and seeps from 0 – 835 meters elevation. Blooms (January-February) March-May. Microsite habitat characteristics include vernally wet areas with compacted soils (CNPS 2020).	**Will not occur.** Suitable vernally wet habitat with compacted soils is not present in the project site. The only reported occurrence of this species on the Miranda USGS quad is from 1921.
Navarretia leucocephala ssp. *bakeri* Baker's navarretia	--/--/1B.1	A perennial herb found on mesic soils in cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland and vernal pools from 5 – 1740 meters elevation. Blooms April-July (CNPS 2020).	**Will not occur.** There are no suitable habitats on the project site.
Packera bolanderi var. *bolanderi* seacoast ragwort	--/--/2B.2	A perennial rhizomatous herb often found in roadsides in coastal scrub and North Coast coniferous forest from 30 - 650 meters elevation. Blooms (January - April) May-July (August) (CNPS 2020).	**Will not occur.** Habitats in the project site are disturbed and the project site is outside of this species known range. The closest reported occurrences include a cluster of seven occurrences approximately 9 miles north of the

Species Name/ Common Name[1]	Status[2]	Habit, Ecology and Life History	Potential to Occur
			project site in roadcuts in the vicinity of the Eel River near McCann (CNDDB 2020).
Piperia candida white-flowered rein orchid	--/--/1B.2	A perennial herb often found in serpentinite soils in broadleafed upland forests, lower montane coniferous forests, and North Coast coniferous forests from 30 – 1310 meters elevation. Blooms (March)May-September (CNPS 2020).	**May occur.** Suitable habitat for this species is present in north coast coniferous forest habitat in the project site, primarily around the spring site. Several occurrences on the Miranda quad including approximately 4,000 ft west of the site.
Sidalcea malviflora ssp. *patula* Siskiyou checkerbloom	--/--/1B.2	A perennial rhizomatous herb often found on roadcuts in coastal bluff scrub, coastal prairie, and North Coast coniferous forest from 15 – 880 meters elevation. Blooms (April) May-August. Microsite habitat characteristics includes roadcuts within open coastal forests (CNPS 2020).	**Will not occur.** Habitats in the project site are disturbed, lack openings for this species, and the project site is outside of this species known range. The nearest extant occurrence is 6.8 miles north of the project site in roadcuts in the vicinity of the Eel River near McCann (CNDDB 2020).
Tracyina rostrata beaked tracyina	--/--/1B.2	An annual herb found in chaparral, cismontane woodland and valley and foothill grassland from 90 – 790 meters elevation. Blooms May - June (CNPS 2020).	**Will not occur.** There are no suitable chaparral, woodland or grassland habitat on the project site.

Species Name/ Common Name[1]	Status[2]	Habit, Ecology and Life History	Potential to Occur
Animals			
Invertebrates			
Bombus occidentalis western bumble bee	--/SCE/--	Bumble bees are primitively eusocial insects that live in underground colonies made up of one queen, female workers, and reproductive members of the colony. New colonies are initiated by solitary queens, generally in the early spring, which typically occupy abandoned rodent burrows (Thorp et al. 1983). This species is a generalist forager and have been reported visiting a wide variety of flowering plants. A short-tongued bumble bee; select food plants include *Melilotus* spp., *Cirsium* spp., *Trifolium* spp., *Centaurea* spp., *Eriogonum* spp., and *Chrysothamnus* spp. (Koch et al. 2012). This species has a short tongue and typically prefers open flowers with short corollas but is known to chew through the base of flowers with long corollas. The flight period for queens in California is from early February to late November, peaking in late June and late September. New queens hibernate over the winter and initiate a new colony the following spring (Thorp et al. 1983). Rare throughout its range and in decline west of the Sierra Nevada crest.	**Will not occur.** There are no openings or herbaceous dominated areas with suitable food plants in the project site. The last reported occurrence of this species on the Miranda quad is from 1976.
Reptiles			

Species Name/ Common Name[1]	Status[2]	Habit, Ecology and Life History	Potential to Occur
Emys marmorata western pond turtle	--/--/SSC	Turtle that inhabits slow-moving water with dense submerged vegetation, abundant basking sites, gently sloping banks, and dry clay or silt soils in nearby uplands. Turtles will lay eggs up to 0.25-mile from water, but typically go no more than 600 feet (Jennings and Hayes 1994).	**Will not occur.** There is no suitable aquatic habitat on the project site. Soil types on the site primarily consist of gravelly loams which is unsuitable for the species. The nearest extant occurrence is 5.4 miles north of the project site along Elk Creek (CNDDB 2020).
Amphibians			
Rana aurora northern red-legged frog	--/--/SSC	The northern red-legged frog is found in still waters of ponds, marshes or pools in streams. The species prefers thickly vegetated shorelines. In terrestrial environments adults can be found in woody debris and mid-level canopy trees. The species is generally found near permanent water but can be found far from water in damp woods and meadows outside of the breeding season (Hayes and Hayes 2003).	**Not expected.** There is no suitable aquatic habitat on the project site and there are no reported occurrences of this species on the Miranda quad in spite numerous surveys for foothill yellow legged frog in the S. Fork Eel River and other major streams in the area. The nearest documented extant occurrence is 6.6 miles north of the project site in a drainage ditch near Fruitridge (CNDDB 2020).
Rana boylii foothill yellow-legged frog	--/SE/SSC	The foothill yellow-legged frog occurs along the coast ranges from Oregon to Los Angeles and along the western side of the Sierra Nevada. This species uses perennial rocky streams in a wide variety of habitats up to 6,400 feet above msl. This species rarely ventures far from water, is usually found basking in the water, or under surface debris or underground within 165 feet of water.	**Will not occur**. There is no suitable stream habitat in or adjacent to the site.

Species Name/ Common Name[1]	Status[2]	Habit, Ecology and Life History	Potential to Occur
		Eggs are laid in clusters attached to gravel or rocks along stream margins in flowing water. Tadpoles typically require up to four months to complete aquatic development. Breeding typically follows winter rainfall and snowmelt, which varies based upon location (Jennings and Hayes 1994).	
Rhyacotriton variegatus southern torrent salamander	--/--/SSC	Found in shallow, clear, cold, well-shaded streams and riparian areas with rocky bottoms in mature or old-growth forests (Stebbind *et al.* 2012).	**Will not occur.** The project site does not contain suitable aquatic or old growth habitat.
Birds			
Accipiter cooperii Cooper's hawk	--/--/WL	Cooper's hawk inhabits open woodlands or forest edges, where it can hunt birds in flight. Nests sites are mainly in riparian stands of deciduous trees, such as are found in canyon bottoms and flood plains, and in live oak trees.	**May occur.** marginal nesting habitat is present with the north coast coniferous forest in the project site and there is a reported occurrence of nesting Cooper's hawk from 2005 approximately 2 miles north of the site.
Aquila chrysaetos golden eagle	--/--/FP	Typically occurs in rolling foothills, mountain areas, deserts and other open habitats up to 3,822 m amsl. Typically nests on cliff ledges or large trees in open areas in canyons. Will occasionally use other tall structures for nesting, such as electrical transmission towers. Prey consists mostly of rodents, carrion, birds, reptiles and occasionally small livestock (Zeiner et al. 1990).	**Will not occur.** The project site does not contain suitable open habitat.

Species Name/ Common Name[1]	Status[2]	Habit, Ecology and Life History	Potential to Occur
Brachyramphus marmoratus marbled murrelet	FT/SE/--	This species is pelagic, except during nesting season where it will use old-growth, multi-layered canopied forests up to 50 miles inland from the coast. When nesting trees are not present, this species will nest on the ground or amongst rocks. In California, nesting typically occurs in coastal redwood forest or Douglas fir forests (Marshall 1989).	**Not expected.** There is no suitable old growth canopied forest habitat in the project site. The project site is located within mapped Critical Habitat but does not provide any of the primary constituent elements of Critical Habitat for this species. The presence of deformities and/or large branches to use as a nesting platform is one of the primary constituent elements (USFWS 2016) for the species. The majority of the trees on the project site are in good to fair condition, with no deformities noted. Therefore, the site is not considered Critical Habitat, even though it is within an area mapped as Critical Habitat. Due to the presence of Critical Habitat in the project site, this species is discussed in the text.
Charadrius alexandrinus nivosus western snowy plover	FT/--/SSC	Federal listing applies only to coastal populations that nest on sand beaches above the high tide line. Interior populations nest on barren to sparsely vegetated flats along the shores of lakes, braided river systems, salt ponds, and agricultural sumps. Adults feed on insects and brine shrimp (Shuford and Garaldi 2008).	**Will not occur.** There is no suitable beach or salt pan habitat in the project site. The project site lacks suitable unvegetated substrates required by this species for nesting.

Species Name/ Common Name[1]	Status[2]	Habit, Ecology and Life History	Potential to Occur
Coccyzus americanus yellow-billed cuckoo	FT/--/SSC	Yellow-billed cuckoos are found in deciduous forests with gaps and clearings. The species primarily feeds on insects, especially tent caterpillars. In the West, this species is rare and restricted to the cottonwood-dominated forests that line larger rivers running through arid country (Hughes 1999).	**Will not occur.** There is no suitable riparian habitat in or adjacent to the site.
Empidonax traillii brewsteri little willow flycatcher	--/SC/--	Little willow flycatchers are primarily associated with dense willow stands along rivers and lakes and to a lesser extent have been observed using even aged young forests (Hunter *et al.* 2005).	**Will not occur.** There is no suitable dense willow habitat in or adjacent to the site.
Falco peregrinus anatum American peregrine falcon	FD/SD/FP	Raptor that breeds on steep cliff faces near wetlands. Nests are minimal and may consist of a scrape and are located high on protected ledges or cliffs, including manmade structures. Forages on the wing by swooping on flying prey (Zeiner *et al.* 1990).	**Will not occur.** The project site does not contain suitable cliff or ledge habitat to support nesting for this species.
Strix occidentalis caurina northern spotted owl	FT/--/SSC	Northern spotted owls generally inhabit older forested habitats with very dense canopy cover containing large overstory trees and large standing and fallen dead trees (Stephen et al. 2004). Suitable habitat for California spotted owl consists of dense, multilayer, mature forest with greater than 70 percent canopy closure preferred for nesting and greater than 50 percent canopy closure preferred for foraging (Verner et al. 1992). Nests are placed in tree cavities,	**Not expected.** There is no suitable old growth forested habitat in or adjacent to the site. Due to the presence of reported nests within approximately 0.25 mile of the site, this species is discussed in the text.

Species Name/ Common Name[1]	Status[2]	Habit, Ecology and Life History	Potential to Occur
		broken-topped trees, and platforms, such as abandoned raptor or squirrel nests. Adults do not build their own nests (Zeiner et al. 1990).	
Mammals			
Pekania pennanti Fisher	FPT/ST/SSC	This species is found in coniferous and mixed conifer and hardwood forests, typically in mature forest cover. Riparian forests and habitat close to open water such as streams are important. Cavities and branches in trees, snags, stumps, rock piles, and downed timber are used as resting sites, and large diameter live, or dead trees are selected for natal and maternal dens (Zeiner et al. 1990). Fisher is currently found in the northern Cascade and southern Sierra Nevada mountain ranges (north of Shasta County and south of Mariposa County).	**Not expected.** There is no suitable habitat for fisher in the project site. In addition, the overall level of urban development in areas adjacent to the project site provide a deterrent to use of the project area by this species. The nearest extant occurrence is 3 miles north of the project site in the Humboldt Redwoods State Park (CNDDB 2020).

[1]Sensitive species reported in CNDDB or in USFWS lists for the project site and vicinity.
[2]Status is as follows: Federal (ESA) listing/State (CESA) listing/other CDFW status or CRPR. F = Federal; S = State of California; E = Endangered; T = Threatened; C = Candidate; FP=Fully Protected; SSC=Species of Special Concern; WL=Watch List.
CRPR = California Rare Plant Rank: 1B – rare, threatened, or endangered in California and elsewhere; 2B – rare, threatened, or endangered in California but more common elsewhere. Extension codes: .1 – seriously endangered; .2 – moderately endangered.

[3]Status in the Project site is assessed as follows. **Will Not Occur**: Species is either sessile (*i.e.* plants) or so limited to a particular habitat that it cannot disperse on its own and/or habitat suitable for its establishment and survival Will not occur on the project site; **Not Expected**: Species moves freely and might disperse through or across the project site, but suitable habitat for residence or breeding does not occur on the project site, potential for an individual of the species to disperse through or forage in the site cannot be excluded with 100% certainty; **Presumed Absent:** Habitat suitable for residence and breeding occurs on the project site; however, focused surveys conducted for the current project were negative; **May Occur**: Species was not observed on the site and breeding habitat is not present but the species has the potential to utilize the site for dispersal, **High**: Habitat suitable for residence and breeding occurs on the project site and

the species has been recorded recently on or near the project site, but was not observed during surveys for the current project; **Present**: The species was observed during biological surveys for the current project and is assumed to occupy the project site or utilize the project site during some portion of its life cycle.

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Attachment E

Species Observed on the Property

Table E-1. Plant Species Observed on the Property

Family	Species Name	Common Name	Status[1]
Native			
Anacardiaceae	*Toxicodendron diversilobum*	poison-oak	--
Araliaceae	*Aralia californica*	elk clover	--
Asteraceae	*Baccharis pilularis*	coyote brush	--
Athyriaceae	*Athyrium filix-femina*	lady fern	--
Betulaceae	*Alnus rubra*	red alder	--
	Corylus cornuta	California hazelnut	--
Blechnaceae	*Woodwardia fimbriata*	giant chain fern	--
Caprifoliaceae	*Lonicera hispidula* var. *vacillans*	hairy honeysuckle	--
Cupressaceae	*Sequoia sempervirens*	coast redwood	--
	Thuja plicata	western red cedar	--
Cyperaceae	*Carex obnupta*	slough sedge	--
Dryopteridaceae	*Polystichum munitum*	western swordfern	--
Equisetaceae	*Equisetum telmateia* ssp. *braunii*	giant horsetail	--
Ericaceae	*Arbutus menziesii*	Pacific madrone	--
	Arctostaphylos columbiana	hairy manzanita	--
	Vaccinium ovatum	California huckleberry	--
Fagaceae	*Notholithocarpus densiflorus*	tanoak	--
	Quercus chrysolepis	canyon live oak	--
	Quercus kelloggii	black oak	--
Juncaceae	*Juncus effusus*	soft rush	--
Lauraceae	*Umbellularia californica*	California bay	--
Myrsinaceae	*Trientalis latifolia*	Pacific starflower	--
Pinaceae	*Pseudotsuga menziesii*	Douglas fir	--
Rhamnaceae	*Ceanothus integerrimus*	deer brush	--
Rosaceae	*Heteromeles arbutifolia*	toyon	--
Sapindaceae	*Acer macrophyllum*	big leaf maple	--
Non-native			
Fabaceae	*Cytisus scoparius*	Scotch broom	High
Poaceae	*Anthoxanthum odoratum*	sweet vernal grass	Limited
	Avena fatua	wild oats	Moderate
	Cynosurus echinatus	dogstail grass	Moderate
	Festuca perennis	Italian ryegrass	Moderate
Rosaceae	*Rosa rubiginosa*	sweetbriar rose	--
	Rubus armeniacus	Himalayan blackberry	High

[1]Status of native species is federal listing/state listing/California Rare Plant Rank; Status for non-native species is California Invasive Species Council invasiveness rating.

Table E-2. Wildlife Species Observed on the Property

Order/Family	Species Name	Common Name	Status[1]
Birds			
Cathartiformes			
Cathartidae	*Cathartes aura*	turkey vulture	--
Columbiformes			
Columbidae	*Zenaida macroura*	mourning dove	--
Odontophoridae	*Callipepla californica*	California quail	--
Passeriformes			
Aegithalidae	*Psaltriparus minimus*	bushtit	--
Corvidae	*Aphelocoma californica*	California scrub jay	--
	Corvus brachyrhynchos	American crow	--
Mimidae	*Mimus polyglottos*	northern mockingbird	--
Passerelidae	*Junco hyemalis*	dark-eyed junco	--
	Melozone crissalis	California towhee	--
	Zonotrichia leucophrys	white-crowned sparrow	--
Tyrannidae	*Sayornis nigricans*	black phoebe	--
Piciformes			
Picidae	*Colaptes auratus*	northern flicker	--
	Dryobates pubescens	downy woodpecker	--
Mammals			
Carnivora			
Canidae	*Canis latrans*	coyote (scat)	--
Procyonidae	*Procyon lotor*	raccoon (scat)	--
Lagomorpha			
Leporidae	*Lepus californicus*	black-footed jackrabbit	--

[1]Status for animal species is ESA/CESA listing or other sensitivity.

Attachment F

Site Photographs

Photo 1: View of the existing spring source collection system and associated pipe gallery. Photo taken November 11, 2020.

Photo 2: View of the existing spring source collection system and associated pipe gallery. Photo taken November 11, 2020.

Photo 3: View of the overflow tank as part of the spring source collection system. Photo taken November 11, 2020.

Photo 4: View of the existing spring source collection system, associated pipe gallery, and surrounding forest. Photo taken November 11, 2020.

Photo 5: View of the heavily rutted dirt road used to access the spring site. Photo taken November 11, 2020.

Photo 6: View of the heavily rutted dirt road used to access the spring site. Photo taken November 11, 2020.

Photo 7: View of two 3,000 gallon water storage tanks and associated infrastructure at the WTP. Photo taken November 11, 2020.

Photo 8: View of a 3,000 gallon water storage tank and associated water treatment building at the WTP. Photo taken November 11, 2020.

Photo 9: View of the 140,000-gallon water storage tank and associated infrastructure. It is proposed that a booster pump station be installed in the foreground. Photo taken November 11, 2020.

Photo 10: View of the proposed location of an additional water storage tank on a graded, gravel pad covered in a geotextile tarp. Photo taken November 11, 2020.

Photo 11: View of additional water storage tanks. Photo taken November 11, 2020.

Photo 12: View of the well serving as a secondary water source for the Phillipsville CSD. Photo taken November 11, 2020.

Photo 13: Water is transported to Phillipsville CSD residents via existing HDPE pipes installed above ground. Photo taken November 11, 2020.

Apprendix D

Cultural Resources Assessment Report (HELIX Environmental Planning 2021b)

HELIX Environmental Planning, Inc.
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February 22, 2021 Project # WWE-06

Sheila Magladry, P.E.
Water Works Engineers, LLC.
760 Cypress Avenue, Suite 201
Redding, CA 96001

Subject: **Cultural Resource Assessment Letter Report for the Phillipsville Community Services District Water System Improvements Project, Humboldt County, California**

Dear Ms. Magladry,

HELIX Environmental Planning, Inc. (HELIX) has prepared this cultural resources assessment letter report for the proposed Phillipsville Community Services District (CSD) Water System Improvements Project (project) in the community of Phillipsville in Humboldt County, California. The project is subject to the requirements of both the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act of 1966 (Section 106), with the California State Water Resources Control Board (SWRCB) acting as lead agency under both environmental policies. The relevant regulatory frameworks are presented in **Attachment A**.

This assessment is intended to evaluate the potential for the proposed project to significantly impact historic properties (i.e., prehistoric or historic-era archaeological or architectural resources that meet the criteria for listing in the National Register of Historic Places [NRHP]) and/or historical resources (i.e., prehistoric or historic-era archaeological or architectural resources that meet the criteria for listing in the California Register of Historical Resources [CRHR]). The conclusions and recommendations presented here are based on data from an archival records search, Native American outreach, and an intensive pedestrian survey of the project area.

PROJECT LOCATION AND DESCRIPTION

The proposed project is located in the community of Phillipsville, California, in the southern portion of Humboldt County, approximately 8 miles north of Garberville. The approximately 5.4-acre project area lies within a portion of Sections 12 and 13, Township 3 South, Range 4 East (**Figure 1**; all figures are presented in **Attachment B**). The project area is accessed by state highways 101 and 254 and is adjacent to the South Fork of the Eel River. The community of Phillipsville is bound to the north and south by Humboldt Redwoods State Park.

The project applicant is proposing to improve some of the current water distribution infrastructure that supplies customers served by the Phillipsville CSD. The project would remedy existing water quality issues from a spring source that serves some customers of the district and provide for necessary system

redundancy in case of emergency. The project would also include the installation of new storage tanks and distribution infrastructure to reduce inefficiencies and potentially unsafe conditions due to potential leaks, landslides, and/or contamination of water from the spring source. Most residents in the district are served by an existing well, and the project would include digging a second well to ensure redundancy and a consistent water supply. Further, the project would include a booster pump that would allow residents served by the spring to also have access to a secondary water source (i.e., the well). The connection of the booster pump and well source to the remaining residents currently served by the spring would also enable the construction of fire hydrants to protect homes, wildlands, and infrastructure on the higher terrain of the district, which is also part of the proposed project. A water supply suitable for fire suppression does not currently exist in the higher-elevation portions of the district.

Specific project improvements will include, but may not be limited to:

- Physical improvements to the existing groundwater spring, including regrading/recontouring of the surrounding surface and pipe gallery. The effluent end of the spring would be sealed with a bentonite cut-in wall placed around the collection pipeline, a spring liner would be installed to protect the spring source from influence from surface water, and the hillside around the spring would be re-graded to direct surface water runoff away from the spring.
- Approximately 1-mile of surface roadway improvement to the unnamed spring access road, including grading and felled tree clearance.
- System improvements to the existing water treatment plant building, footprint, and piping. Improvements would include installing a buried, large diameter contact pipeline between the spring water treatment plant (WTP) and the upper zone storage tanks; constructing a concrete pad to support a trailer-mounted generator; and installing security fencing around the building.
- Installation of water storage facilities to increase system redundancy and to provide for necessary fire flows. Improvements would include geotechnical engineering improvements to stabilize slopes; demolition of three existing storage tanks; installation of two new storage tanks and appurtenances; and institutional controls.
- Gravel road surfacing and gravel pathways would be installed at the tank site for access to the spring WTP and walking access around the tanks.
- The existing site plumbing would be demolished to prepare for the contact pipeline installation and new yard piping for the new tanks. Work may include felling of mature, native trees and minor trenching/grading.
- Installation of a booster pump station inside a concrete masonry unit (CMU) block building.
- The pump station and an existing 140,000-gallon steel water storage tank would be enclosed with site fencing, and parking and exterior building lights would be installed.
- Installation of a new 8-inch fire suppression service pipeline that would run approximately one mile from the booster pump station to the upper zone tank site. The pipeline would run down the center of an existing dirt road. A trench would be excavated to accommodate the pipeline and a fiber optic cable.
- Restoration of the gravel road would be restored to pre-construction conditions following the pipeline installation and other system improvements.
- Development of a new well approximately 60 feet from the existing well.

- Improvements to the existing well and well house, including construction of a secondary containment shed on a concrete pad. The well site would be enclosed with fencing and exterior building lights would be installed.

Area of Potential Effects

The Area of Potential Effects (APE) is defined as the geographic area or areas within which a project may directly or indirectly cause alterations in the character or use of significant archaeological or architectural resources. The APE is influenced by the scale and nature of the project as well as by the types of cultural resources in the vicinity. For the purposes of this analysis, the project's primary APE is understood to be the area that would be subjected to ground disturbance during construction and implementation of the proposed project (**Figure 3**).

The APE for the proposed project measures approximately 5.4 acres and corresponds to the project area described above. The APE's vertical dimension is established by the trenching for the 8-inch fire suppression service pipeline, which would run down the center of an existing dirt road and is estimated to extend approximately 2 to 3 feet below the current ground service. Because the project would largely replace existing infrastructure or add new subsurface infrastructure, visual impacts are expected to be negligible and a separate APE to address secondary impacts was considered unnecessary.

ARCHIVAL RECORDS SEARCH

On December 11, 2020, an archival records search in support of the proposed project was conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System, located at Sonoma State University. The records searches addressed all portions of the APE and a 0.5-mile radius around the APE (hereafter referred to as the study area). Sources of information included previous survey and cultural resources files; the National Register of Historic Places (NRHP); the CRHR; the Office of Historic Preservation (OHP) Archaeological Determinations of Eligibility; the OHP Directory of Properties in the Historic Property Data File; historical topographic maps; and historical aerial photographs.

The records search identified 16 studies that have previously been conducted within the study area (**Table 1**).

Table 1
PREVIOUS STUDIES CONDUCTED WITHIN THE STUDY AREA

Report	Year	Author(s)	Title	Affiliation
S-000848	1976	Fredrickson, D. A.	A Summary of Knowledge of the Central and Northern California Coastal Zone and Offshore Areas, Vol. III, Socioeconomic Conditions, Chapter 7: Historical & Archaeological Resources	The Anthropology Laboratory, Sonoma State College; Winzler & Kelly Consulting Engineers
S-002458	1981	Ramiller, N., S.Ramiller, R. Werner, and S. Stewart	Overview of Prehistoric Archaeology for the Northwest Region, California Archaeological Sites Survey: Del Norte, Humboldt, Mendocino, Lake, Sonoma, Napa, Marin, Contra Costa, Alameda	Northwest Regional Office, California Archaeological Sites Survey, Anthropological Studies Center, Sonoma State University
S-007888	1973	Fredrickson, D. A.	Early Cultures of the North Coast Ranges, California.	University of California, Davis

Report	Year	Author(s)	Title	Affiliation
S-008226	1986	Parkman, E. B.	Status of Archeological Resources in the Northern Region, California Department of Parks and Recreation	California Department of Parks & Recreation
S-011185	1988	Gmoser, G. J.	Boundary Development in Northwestern California, an Ecological Approach to Culture History	Sonoma State University
S-017442	1995	Sandelin, L.	Phase I Archaeological Study, Beebe, APN 214-051-01 & 214-041-01, Proposed Lot Line Adjustment, Humboldt County, California	Sandelin Archaeology and Forestry
S-020395	1998	Gillette, D. L.	PCNs of the Coast Ranges of California: Religious Expression or the Result of Quarrying?	California State University, Hayward
S-030204	2003	Gillette, D. L.	The Distribution and Antiquity of the California Pecked Curvilinear Nucleated (PCN) Rock Art Tradition.	University of California, Berkeley
S-038865	2011	Leach-Palm, L., P. Brady, P. Mikkelsen, L. Seil, D. Rice, B. Larson, J. Freeman, and J. Costello	Cultural Resources Inventory of Caltrans District 1 Rural Conventional Highways in Del Norte, Humboldt, Mendocino and Lake Counties, Contract No. 01A1056, Expenditure Authorization No. 01-453608	Far Western Anthropological Research Group; JRP Historical Consulting, LLC; Foothill Resources Ltd.
S-042152	2001	Collins, M. D.	Confidential Archaeological Addendum for Timber Operations on Non-Federal Lands in California Kahn; Phillipsville THP 1-01-49 HUM	James Able Forestry Consultants
S-043461	2008	Cohoon, B. C.	An Archaeological Survey Report for the Kahn Phillipsville 2008 Timber Harvesting Plan, Humboldt County, California	Ben Cohoon Logging and Forestry
S-044429	2012	Haney, J., and E. Dwyer	Archaeological Survey Report for a Proposed Bridge Upgrade/Replacement Project along State Route 254, Humboldt County, California	Caltrans District 3
S-044964	2008	Leach-Palm, L., W. R. Hildebrandt, and J. Meyer	Phase I Archaeological Survey of 262 Locations Planned for Metal Beam Guardrail Construction along State Route 101, Humboldt County, 01-HUM-101, PM 0.20-126.00 (KP 032-202.77), EA 01-464000	Far Western Anthropological Research Group, Inc.
S-045088	2007	Lasbury, T.	Final Mitigated Negative Declaration for the Phillipsville Community Services District	Phillipsville Community Services District
S-046715	2014	Cardiff, D., S. Thomas, and D. York	Historic Property Survey Report for Metal Beam Guardrail Repair and Replacement Project, Humboldt County, Var, Var 2014, E-FIS Project Number, 0112000274	Caltrans District 1
S-046715	2014	Cardiff, D., S. Thomas, and D. York	Archaeological Survey Report for the HUM-VAR-MBGR Repair and Replacement Project 2014 01-HUM-VAR, Humboldt County, California, EA 01-46392	Caltrans District 1

One study directly investigated the majority of the current APE. Report S-045088, the Final Mitigated Negative Declaration for the Phillipsville Community Services District, was completed in 2007 and addressed the entire alignment that contains the existing 3-inch pipeline and transmission line, as well as portions of Phillipsville. The study did not find any cultural resources within the current APE.

The other studies found during the records search are generally regional-scale academic and research studies or focused on areas to the west of the current APE. Report S-038865, completed in 2011, was a Cultural Resources Inventory of Caltrans District 1 Rural Conventional Highways in Del Norte, Humboldt, Mendocino and Lake Counties. That inventory resulted in the documentation of the only cultural resource that has previously been recorded within the study area (**Table 2**).

Table 2
PREVIOUSLY DOCUMENTED RESOURCES WITHIN THE STUDY AREA

Primary	Trinomial	Description	Year	Author(s)	Affiliation
P-12-003233	N/A.	Historic Highway	2011	Andrew Hope	Caltrans

Resource P-12-003233 represents State Route 254 in Humboldt County, also known as Avenue of the Giants. The resource is a two-lane highway approximately 32 miles in length. Its 2011 documentation recommends that the resource is not eligible for listing in the NRHP or the CRHR. P-12-003233 intersects the western portion of the current study area but comes no closer than 600 feet to the APE.

Additional Historical Information

The 1922 Atlas of Humboldt County, California (Belcher Abstract & Title Co. 1922) indicates that the parcel containing the APE was owned at the time by John H. Mercer. Reviews of additional sources of information, including the California Inventory of Historic Resources, the Built Environment Resources Directory, Archaeological Determinations of Eligibility, and GLO Plat Maps, failed to yield any additional information about the history of the project area.

NATIVE AMERICAN OUTREACH

On December 21, 2020, HELIX requested that the Native American Heritage Commission (NAHC) conduct a search of their Sacred Lands File for the presence of Native American sacred sites or human remains in the vicinity of the proposed project area. A written response received from the NAHC on December 22, 2020, stated that the Sacred Lands File failed to indicate the presence of Native American cultural resources in the vicinity of the APE.

On December 28, 2020, HELIX sent letters to three Native American contacts that were recommended by the NAHC as potential sources of information related to cultural resources in the vicinity of the project area:

- Edward Bowie, Cultural Liaison, Bear River Band of Rohnerville Rancheria
- Erika Cooper, Tribal Historic Preservation Officer, Bear River Band of Rohnerville Rancheria
- Josefina Cortez, Chairwoman, Bear River Band of Rohnerville Rancheria

The letters advised the tribes and specific individuals of the proposed project and requested information regarding cultural resources in the immediate area, as well as any feedback or concerns related to the proposed project. As of the date of this report, one response has been received: Ms. Erika Cooper, Tribal Historic Preservation Officer of the Bear River Band of the Rohnerville Rancheria, replied via emial on February 19, 2021. Ms. Cooper did not offer any comments or recommendations related to the proposed project, but requested a point of contact for the project's lead agency, clarification of the project's regulatory framework, and an update on the results of the records search. This requested information was provided to Ms. Cooper via email response on February 22, 2021.

Documentation related to Native American coordination is included as **Attachment C**.

INTENSIVE PEDESTRIAN SURVEY

On November 11, 2020, HELIX Staff Archaeologist, Jentin Joe, conducted a pedestrian survey to characterize any prehistoric or historic-era archaeological resources located within the APE. During the survey the ground surface throughout the APE was examined for the presence of historic-era artifacts (e.g., metal, glass, ceramics), prehistoric artifacts (e.g., flaked stone tools, tool-making debris), and other features that might represent human activity that took place more than 50 years ago. A 20-foot buffer

was also surveyed around all proposed project elements, and a 10-foot buffer was surveyed on either side of the dirt road where the 8-inch fire suppression service pipeline would run. Survey photographs are presented in **Attachment D**.

The topography of the project area can be roughly divided into two zones. The lower zone is a relatively flat plain adjacent to the South Fork Eel River and west of State Route 254. This area has been improved, and contains residences, farm structures, agricultural crops, and trees. Soils in the lower zone consist of nonmarine fluvial terrace deposits that are uplifted remnants of the former Eel River channel and flood plain. The upper zone, located east of State Route 254, exhibits slopes measuring from 18 to 34 degrees. Those slopes are moderately to heavily timbered and have a thick understory of smaller trees, shrubs, and vines that severely limited surface visibility during the survey (**Photograph 1**). Soils in the upper zone are moderately lithified sedimentary deposits overlain by landslide deposits. Access roads and residential structures are present locally across these slopes, and former skid trails and landings can be observed in various locations (Bajada 2020).

Landslides are present throughout the region and within the CSD service area. Recent or active landslide deposits underlie most of the APE, including the spring and proposed tank and pump station locations. Bajada (2020:14) determined that "the landslide underlying the spring and proposed tank site has geomorphology indicative of an earth flow and could be actively creeping on an annual and seasonal basis… the geomorphology of the landslide underlying the proposed pump station appears older, implying that the landslide is dormant."

The existing spring source collection system and associated pipe gallery and overflow tank are built into a hillside at the northeastern end of the APE (**Photograph 2**). The spring is contained within a pond liner and clay fill soil has been used for stabilization due to the high landslide risk in the area. The spring was accessed from the east by a heavily rutted dirt road off of Rock Pit Lane, which features a large gravel staging area at its terminus.

The spring WTP, also near the northeastern end of the APE, consists of a gravel pad with three 3,000-gallon water storage tanks and an associated water treatment building **(Photograph 3**). All proposed alterations to the spring WTP would remain within the current footprint of the WTP. The site is accessed via a steep gravel road off of Spring Canyon Road that represents the alignment of the proposed 8-inch fire suppression service pipeline (**Photograph 4**).

A 140,000-gallon water storage tank and associated infrastructure is located at the southern end of the APE, off of Ascending Lane (**Photograph 5**). The proposed booster pump station would be installed in a CMU block building in front of the water storage tank. An additional water storage tank is proposed to be installed on a site located off of Spring Canyon Road. The potential tank site is located on a graded, gravel pad covered in a geotextile tarp (**Photograph 6**), while the well house and associated infrastructure are located in Phillipsville on the east side of the Avenue of the Giants Highway (**Photograph 7**).

The entirety of the APE was surveyed, but no prehistoric or historic-era artifacts or features were found.

CONCLUSIONS AND RECOMMENDATIONS

The records search determined that one previous study has characterized the current APE. Report S-045088, the Final Mitigated Negative Declaration for the Phillipsville Community Services District, was completed in 2007 and addressed the alignment that contains the existing 3-inch pipeline and transmission line and would contain the proposed 8-inch fire suppression service pipeline. That study did not find any cultural resources within the current APE.

The only resource previously documented within the study area is P-12-003233, which represents State Route 254 (also known as Avenue of the Giants) in Humboldt County. In 2011 the highway was recommended ineligible for listing in both the NRHP and the CRHR. P-12-003233 intersects the western portion of the current study area but comes no closer than 600 feet to the APE.

The results of HELIX's Native American outreach remain inconclusive – a search of the Sacred Lands File by the NAHC did not indicate that sensitive Native American resources are located in the area, although none of the tribes or individuals contacted by HELIX have responded with specific information about the area.

No cultural resources were found during the survey and the majority of the APE is underlain by recent and/or active landslide deposits on steep slopes, suggesting that the likelihood of encountering intact, surficial or shallowly buried archaeological materials during project implementation is low. Given these findings the APE should be considered to have a low sensitivity for cultural resources at the grading and excavation depths planned for the proposed project. Because ground visibility in portions of the APE was poor during the survey, HELIX has provided the recommendations below to minimize the potential for undiscovered historic properties or historical resources, if they exist, to be adversely affected during project implementation.

Inadvertent Discoveries

In the event that cultural resources are exposed during ground-disturbing activities, construction activities should be halted in the immediate vicinity of the discovery. If the site cannot be avoided during the remainder of construction, an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards should then be retained to evaluate the find's eligibility for inclusion in the NRHP and/or CRHR. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted and should be discussed in consultation with the SWRCB.

Treatment of Human Remains

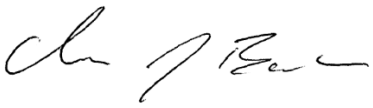
Although there is no evidence to suggest the presence of human remains, their discovery is always a possibility during a project. If such an event did occur, the specific procedures outlined by the NAHC, in accordance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code, will be followed:

1. All excavation activities within 60-feet of the remains will immediately stop, and the area will be protected with flagging or by posting a monitor or construction worker to ensure that no additional disturbance occurs.
2. The project owner or their authorized representative will contact the County Coroner.

3. The coroner will have two working days to examine the remains after being notified in accordance with HSC 7050.5. If the coroner determines that the remains are Native American and are not subject to the coroner's authority, the coroner will notify NAHC of the discovery within 24 hours.
4. NAHC will immediately notify the Most Likely Descendant (MLD), who will have 48 hours after being granted access to the location of the remains to inspect them and make recommendations for treatment of them. Work will be suspended in the area of the find until the senior archaeologist approves the proposed treatment of human remains.
5. If the coroner determines that the human remains are neither subject to the coroner's authority nor of Native American origin, then the senior archaeologist will determine mitigation measures appropriate to the discovery.

Should you have any questions regarding our approach, methodology, results or conclusions, please do not hesitate to contact me.

Sincerely,



Clarus J. Backes, Jr., RPA
Senior Archaeologist
HELIX Environmental Planning, Inc.

Attachments (4):

Attachment A – Regulatory Framework
Attachment B – Figures
Attachment C – Native American Correspondence
Attachment D – Representative Site Photos

REFERENCES

Bajada Geosciences, Inc. 2020. Preliminary (Desktop) Geotechnical Report: Phillipsville Community Services District Water System Improvement Project, Humboldt County, California. Report prepared for the Phillipsville Community Services District.

Belcher Abstract & Title Co. 1922. Atlas of Humboldt County, California compiled from official records and private sources and surveys. On file at the Northwest Information Center, Sonoma State University.

Attachment A

Regulatory Framework

Regulatory Framework

Federal Regulations

National Environmental Policy Act

The National Environmental Policy Act (NEPA) and its supporting federal regulations establish certain requirements that must be adhered to for any action "financed, assisted, conducted or approved by a federal agency." In making a decision on the issuance of federal grant monies or a permit to conduct work on federal lands for components of the proposed action, the federally designated lead agency pursuant to NEPA is required to "determine whether the proposed action may significantly affect the quality of the human environment." NEPA requires the systematic evaluation of potential environmental impacts of a proposed action and alternative actions, the identification of adverse effects, and consultation with any federal agency that has jurisdiction by law or special expertise with respect to any environmental impact involved. With regard to cultural resources, NEPA states, "It is the continuing responsibility of the Federal Government to use all practicable means . . . to preserve important historic, cultural, and natural aspects of our national heritage." (42 USC 4331). The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the NRHP, or may cause loss or destruction of significant scientific, cultural, or historical resources, must be considered (40 CFR 1508.27(b)8).

National Historic Preservation Act of 1966 (16 USC 470)

Enacted in 1966, the NHPA declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places (NRHP), established the position of SHPO and provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assisted Native American tribes in preserving their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

Section 106

Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in or eligible for inclusion in the NRHP, and that the ACHP must be afforded an opportunity to comment on such undertakings through a process outlined in 36 CFR Part 800. The Section 106 process involves the identification of significant historic and archaeological resources ("historic properties") within an APE, the determination of whether the undertaking will cause an adverse effect on historic properties, and the resolution of those adverse effects through execution of a Memorandum of Agreement. In addition to the ACHP, interested members of the public—including individuals, organizations,

and agencies (such as the California Office of Historic Preservation)—are provided with opportunities to participate in the process.

National Register of Historic Places

The NRHP was established by the NHPA of 1966 as "an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment" (36 CFR 60.2).

The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history.
- Criterion B: It is associated with the lives of persons who are significant in our past.
- Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

Cemeteries, birthplaces, graves of historic figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain conditions. In general, a resource must be at least 50 years old to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) sets provisions for the inadvertent discovery and/or intentional removal of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

American Indian Religious Freedom Act of 1978

The American Indian Religious Freedom Act of 1978 (AIFRA) was enacted to protect and preserve the traditional religious rights and cultural practices of Native Americans. These rights include, but are not limited to, access of sacred sites, freedom to worship through ceremonial and traditional rights and use, and possession of objects considered sacred. The AIFRA requires that federal agencies evaluate their actions and policies to determine if changes are needed to ensure that Native American religious rights and practices are not disrupted by agency practices. Such evaluations are made in consultation with native traditional religious leaders.

State Regulations

California Environmental Quality Act

Pursuant to CEQA, a historical resource is a resource listed in, or eligible for listing in, the California Register of Historical Resources (CRHR). In addition, resources included in a local register of historic resources, or identified as significant in a local survey conducted in accordance with state guidelines, are also considered historic resources under CEQA, unless a preponderance of the facts demonstrates otherwise. According to CEQA, the fact that a resource is not listed in, or determined eligible for listing in, the CRHR, or is not included in a local register or survey, shall not preclude a Lead Agency, as defined by CEQA, from determining that the resource may be a historic resource as defined in California Public Resources Code (PRC) Section 5024.1.7.

CEQA applies to archaeological resources when (1) the historic or prehistoric archaeological resource satisfies the definition of a historical resource, or (2) the historic or prehistoric archaeological resource satisfies the definition of a "unique archaeological resource." A unique archaeological resource is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria (PRC § 21083.2(g)):

1. The archaeological resource contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
2. The archaeological resource has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. The archaeological resource is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC § 5024.1(a)). Certain properties, including those listed in or formally determined eligible for listing in the National Register of Historic Places (NRHP) and California Historical Landmarks (CHLs) numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical

Interest program, identified as significant in historic resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR.

A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria (PRC § 5024.1(c)):

> Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
>
> Criterion 2: It is associated with the lives of persons important in our past.
>
> Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
>
> Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Resources that have achieved significance within the past 50 years also may be eligible for inclusion in the CRHR, provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.

Native American Heritage Commission

Section 5097.91 of the PRC established the Native American Heritage Commission (NAHC), whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.9 of the PRC, a State policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines located on public property. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner.

Government Code Sections 6254(r) and 6254.10

These sections of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to "Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission." Section 6254.10

specifically exempts from disclosure requests for "records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the Native American Heritage Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency."

Health and Safety Code, Sections 7050 and 7052

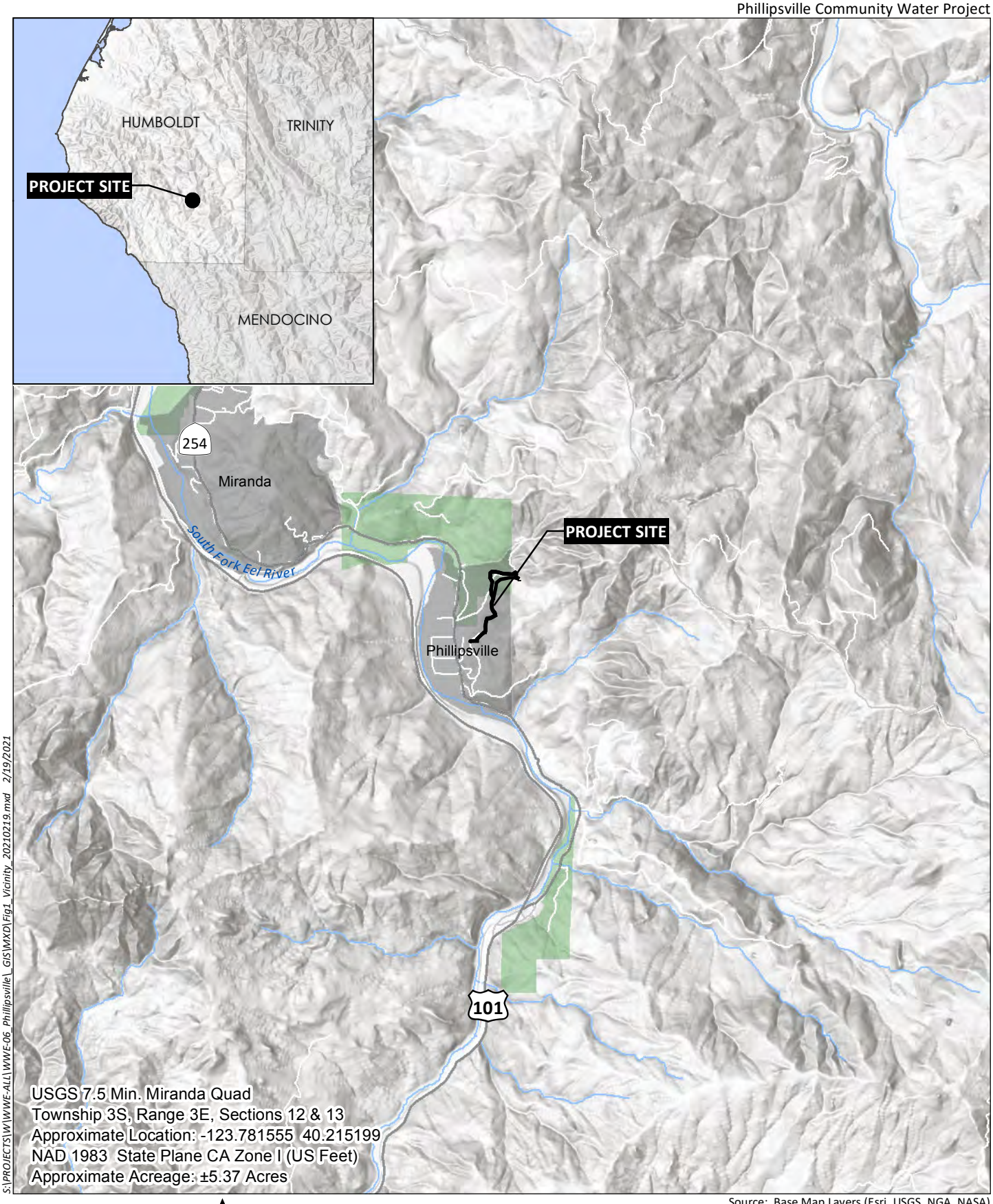
Health and Safety Code, Section 7050.5 declares that, in the event of the discovery of human remains outside of a dedicated cemetery, all ground disturbance must cease and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

Penal Code, Section 622.5

Section 622.5 of the Penal Code provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands, but specifically excludes the landowner.

Attachment B

Figures



S:\PROJECTS\W\WWE-ALL\WWE-06_Phillipsville_GIS\MXD\Fig1_Vicinity_20210219.mxd 2/19/2021

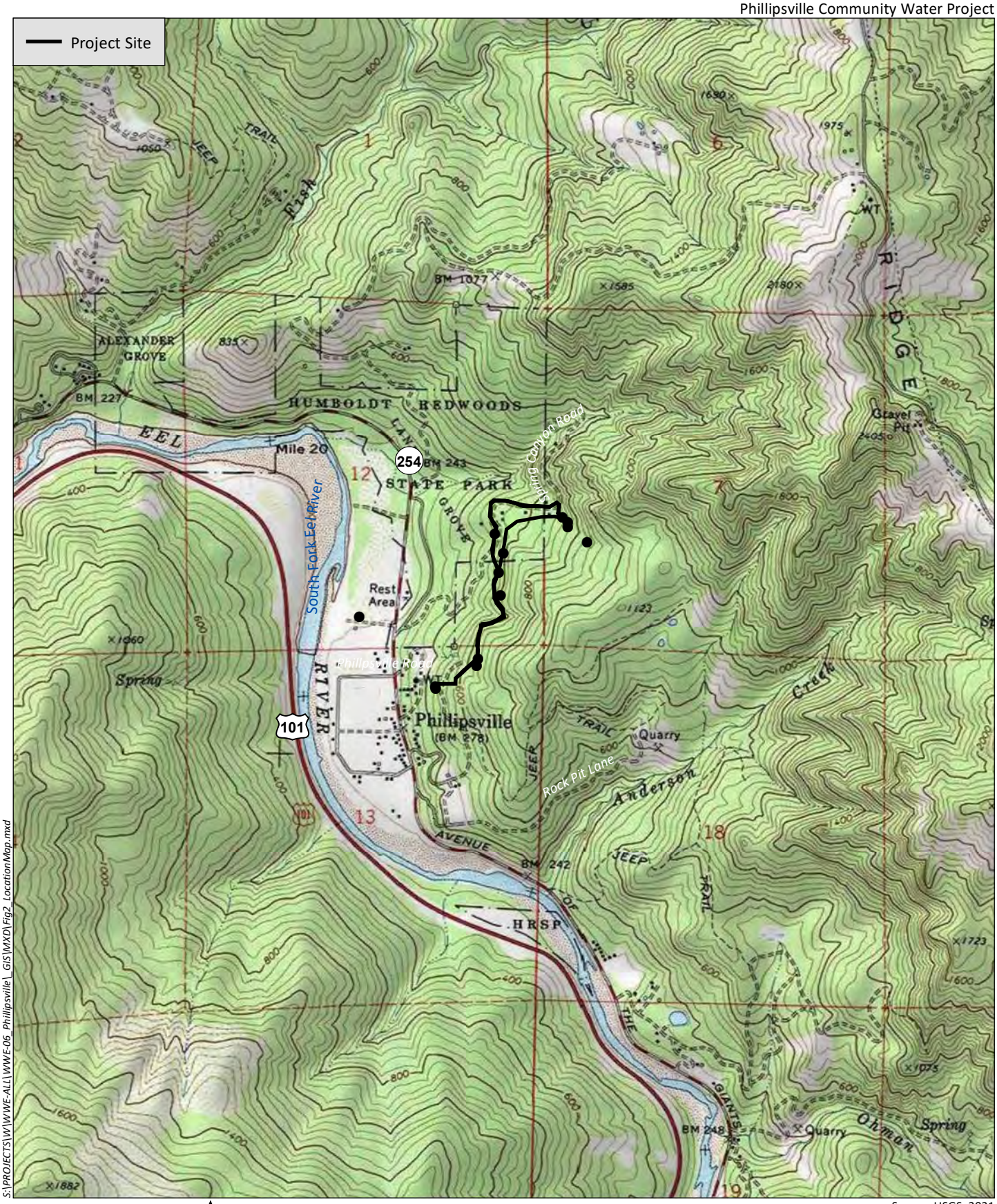
0 1 Miles

Source: Base Map Layers (Esri, USGS, NGA, NASA)

HELIX Environmental Planning

Vicinity Map

Figure 1



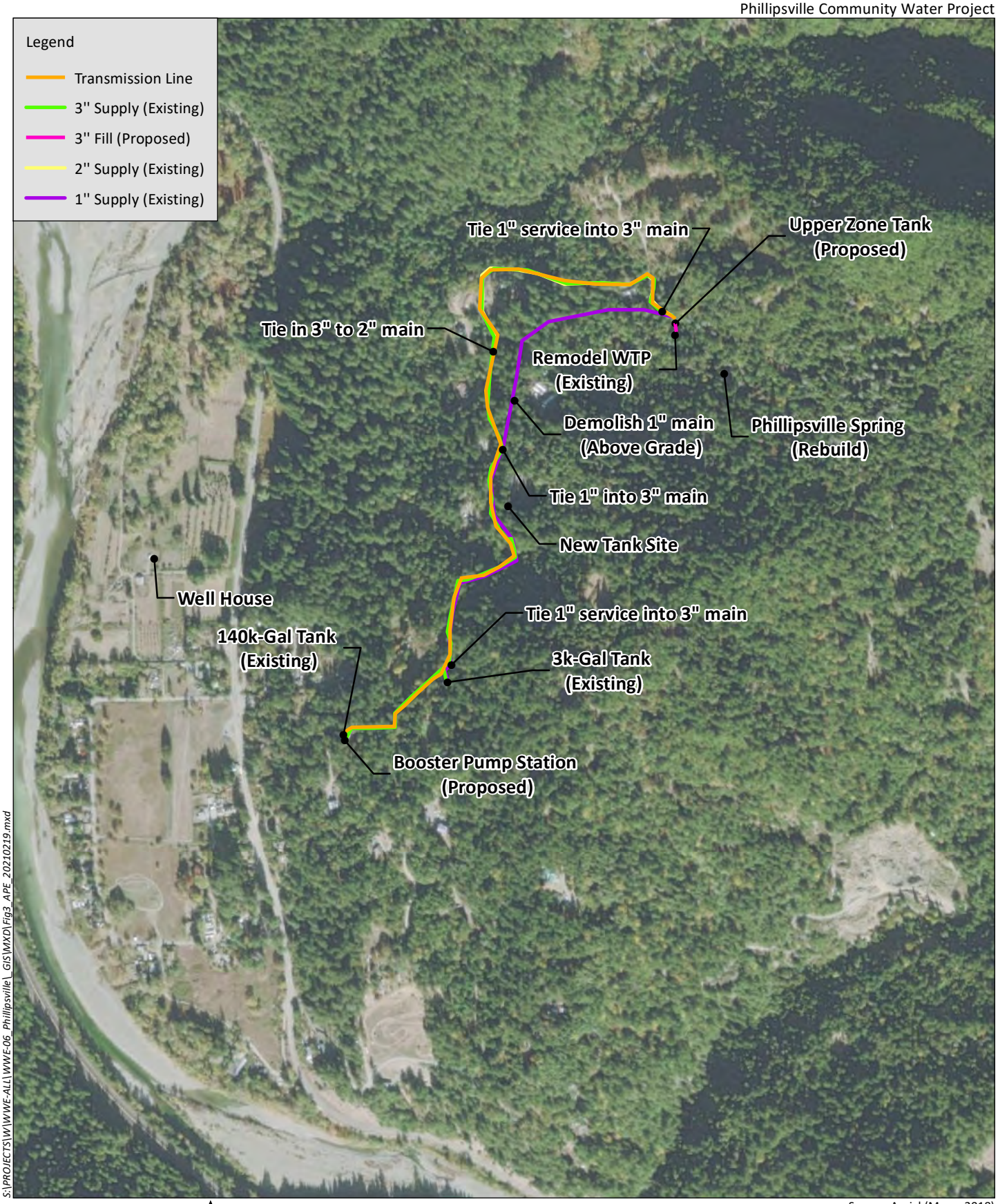
S:\PROJECTS\W\WWE-ALL\WWE-06_Phillipsville_GIS\MXD\Fig2_LocationMap.mxd

Source: USGS, 2021

HELIX Environmental Planning

Project Location Map

Figure 2



S:\PROJECTS\W\WWE-ALL\WWE-06_Phillipsville_GIS\MXD\Fig3_APE_20210219.mxd

0 800 Feet

Source: Aerial (Maxar 2018)

HELIX Environmental Planning

Area of Potential Effect (APE)

Figure 3

Attachment C

Native American Correspondence

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

January 21, 2021

Clarus Backes

HELIX Environmental Planning

Via Email to:clarusb@helixepi.com

Re: WWE-06 Phillipsville Community Water Project, Humboldt County

Dear Mr. Backes:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,

Nancy Gonzalez-Lopez
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Humboldt County
1/21/2021

Bear River Band of Rohnerville Rancheria
Erika Cooper, Tribal Historic Preservation Officer
266 Keisner Road
Loleta, CA, 95551
Phone: (707) 733 - 1900
Fax: (707) 733-1723

Mattole
Wiyot

Bear River Band of Rohnerville Rancheria
Josefina Cortez, Chairwoman
266 Keisner Road
Loleta, CA, 95551
Phone: (707) 733 - 1900
Fax: (707) 733-1723

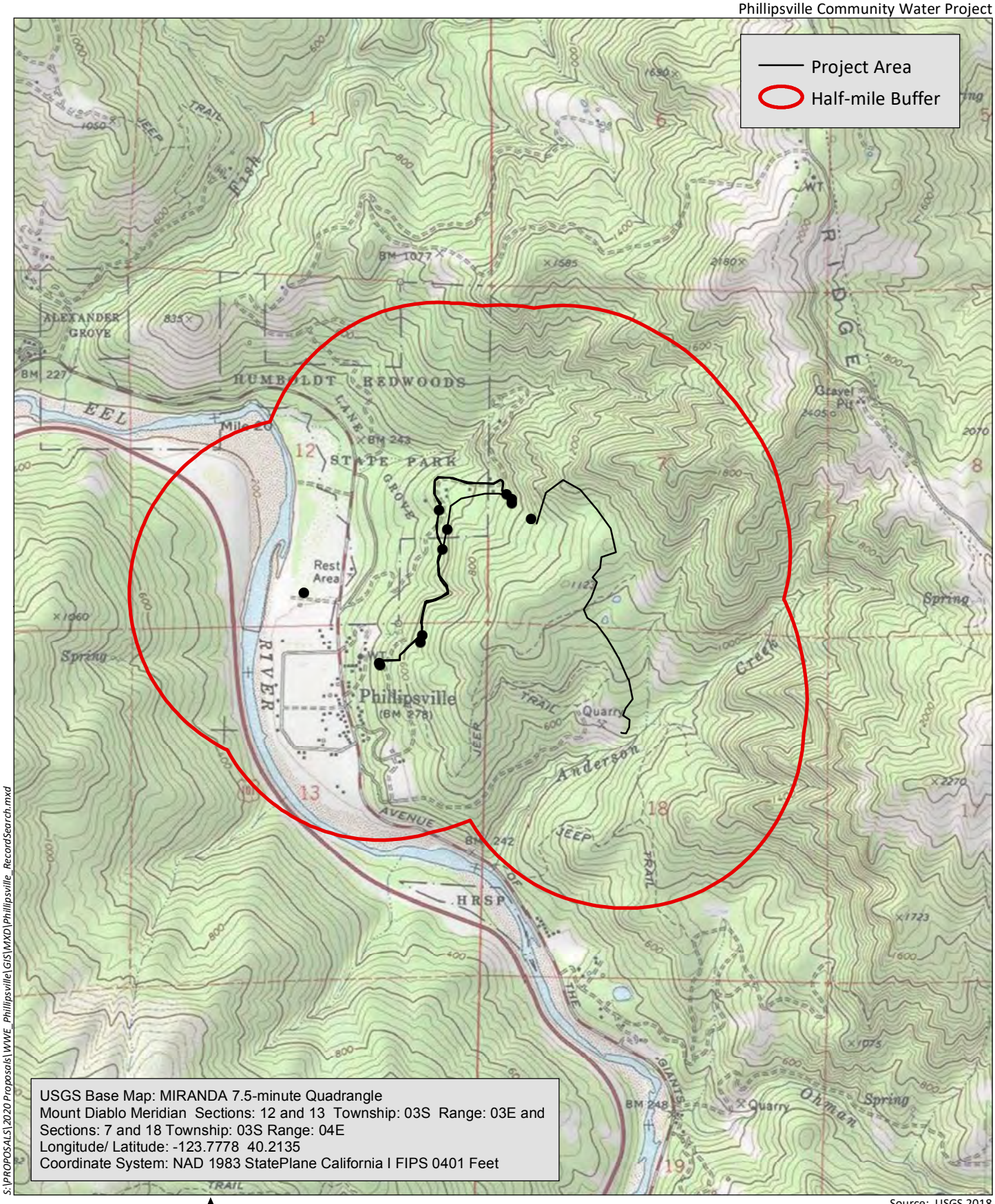
Mattole
Wiyot

Bear River Band of the Rohnerville Rancheria
Edward Bowie, Cultural Liaison
266 Keisner Rd.
Loleta, CA, 95551
Phone: (707) 733 - 1900
Fax: (707) 733-1723

Mattole
Wiyot

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed WWE-06 Phillipsville Community Water Project, Humboldt County.



S:\PROPOSALS\2020 Proposals\WWE_Phillipsville\GIS\MXD\Phillipsville_RecordSearch.mxd

0 2,000 Feet

Source: USGS 2018

HELIX Environmental Planning

Half-mile Record Search Map

Exhibit A

HELIX Environmental Planning, Inc.
11 Natoma Street
Suite 155
Folsom, CA 9530
916.365.8700 **tel**
619.462.0552 **fax**
www.**helixepi**.com

December 29, 2020

Edward Bowie, Cultural Liaison
Bear River Band of Rohnerville Rancheria
266 Keisner Road
Loleta, CA 95551

Subject: WWE-06, Phillipsville Community Water Project

Dear Mr. Bowie,

HELIX Environmental Planning, Inc. (HELIX) has contracted with Water Works Engineers, LLC to provide a Cultural Resources Assessment in support of the proposed Phillipsville Community Water Project (project) located in Humboldt County, California. A search of the Native American Heritage Commission's (NAHC) Sacred Lands File yielded a negative result for the project, and the NAHC has suggested we contact you for information regarding Native American resources in or near the project area.

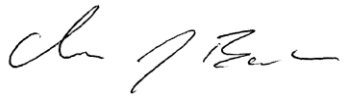
The Phillipsville Community Services District (PCSD) serves approximately 300 residents from two water sources: a spring and a well. A potable water treatment system for the spring was installed in 2012, and while the system is adequate to meet surface water treatment standards, there is inadequate chlorine contact time. This project is needed to assess the current condition of the spring source and evaluate potential improvements to address slope stability, treatment system deficiencies, water storage, chlorine contact time requirements, and adequate water supply during summer months. The proposed project includes an evaluation of the system conditions and an analysis of alternatives to improve drinking water supply and water quality. Specific project improvements may include but are not limited to: Physical improvements to the existing groundwater spring; approximately 1-mile of surface roadway improvement to the unnamed spring access road, including grading and felled tree clearance; system improvements to the existing water treatment plant building, footprint, and piping; installation of water storage facilities to increase system redundancy and to provide for necessary fire flows; and minor modifications to existing distribution piping and trenching for new transmission main. Work may include felling of mature, native trees and minor trenching/grading.

The project would be located in Township 3S, Range 3E, Sections 12 and 13; and Township 3S, Range 4E, Sections 7 and 18, as shown on the Miranda, CA USGS 7.5' topographic quadrangle.

If there are sensitive resources on or near the proposed project location that could be impacted by construction activities please advise us accordingly. If you have any information, questions, or

concerns regarding the proposed project, please feel free to contact me directly at (916) 365-8700 or clarusb@helixepi.com.

Sincerely,



Clarus J. Backes Jr., M.A., RPA
Cultural Resources Group Manager
HELIX Environmental Planning, Inc.

HELIX Environmental Planning, Inc.
11 Natoma Street
Suite 155
Folsom, CA 9530
916.365.8700 **tel**
619.462.0552 **fax**
www.**helixepi**.com

December 29, 2020

Erika Cooper, Tribal Historic Preservation Officer
Bear River Band of Rohnerville Rancheria
266 Keisner Road
Loleta, CA 95551

Subject: WWE-06, Phillipsville Community Water Project

Dear Ms. Cooper,

HELIX Environmental Planning, Inc. (HELIX) has contracted with Water Works Engineers, LLC to provide a Cultural Resources Assessment in support of the proposed Phillipsville Community Water Project (project) located in Humboldt County, California. A search of the Native American Heritage Commission's (NAHC) Sacred Lands File yielded a negative result for the project, and the NAHC has suggested we contact you for information regarding Native American resources in or near the project area.

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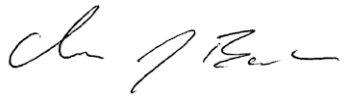

Clarus J. Backes Jr., M.A., RPA
Cultural Resources Group Manager
HELIX Environmental Planning, Inc.

HELIX Environmental Planning, Inc.
11 Natoma Street
Suite 155
Folsom, CA 9530
916.365.8700 **tel**
619.462.0552 **fax**
www.**helixepi**.com

December 29, 2020

Josefina Cortez, Chairwoman
Bear River Band of Rohnerville Rancheria
266 Keisner Road
Loleta, CA 95551

Subject: WWE-06, Phillipsville Community Water Project

Dear Chairwoman Cortez,

HELIX Environmental Planning, Inc. (HELIX) has contracted with Water Works Engineers, LLC to provide a Cultural Resources Assessment in support of the proposed Phillipsville Community Water Project (project) located in Humboldt County, California. A search of the Native American Heritage Commission's (NAHC) Sacred Lands File yielded a negative result for the project, and the NAHC has suggested we contact you for information regarding Native American resources in or near the project area.

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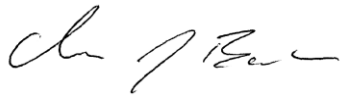
Sincerely,



Clarus J. Backes Jr., M.A., RPA
Cultural Resources Group Manager
HELIX Environmental Planning, Inc.

From: Erika Cooper
To: Clarus Backes
Subject: WWE-06 Phillipsville Community Water Project
Date: Friday, February 19, 2021 8:31:53 AM

Hello Clarus,

Thank you for reaching out regarding the subject project, for which I understand Helix will be conducting a cultural resources study. To begin, please provide both a point of contact for the lead agency for the project and clarification on the regulatory framework of the project. An update on the results of your records search would be useful as well, as there are likely recent nearby surveys that have not been filed with the information center yet.

Erika Cooper
Tribal Historic Preservation Officer

Bear River Band of the Rohnerville Rancheria
266 Keisner Road | Loleta, CA 95551
O: 707-733-1900 x233 | M: 707-502-5233

From: Clarus Backes
To: "Erika Cooper"
Subject: RE: WWE-06 Phillipsville Community Water Project
Date: Monday, February 22, 2021 10:06:00 AM

Ms. Cooper,

Thank you for responding to our request for comments about the Phillipsville Community Water Project. The project will be subject to the requirements of both Section 106 and CEQA, with the State Water Resources Control Board acting as lead agency. Here is the information for our point of contact:

Andrew Stoltenberg
Water Resource Control Engineer
Work Phone: 916-341-5686
Cell Phone: 916-578-4424
Small DAC Coastal Unit
Division of Financial Assistance
Andrew.Stoltenberg@waterboards.ca.gov

Regarding the records search, HELIX requested data for the APE with a 0.5-mile buffer. Only one resource has been recorded in the records search area: P-12-003233 represents State Route 254 (Avenue of the Giants) in Humboldt County. The resource is a two-lane highway approximately 32 miles in length. Its 2011 documentation recommends that the resource is not eligible for listing in the NRHP or the CRHR. P-12-003233 intersects the western portion of the current study area, but comes no closer than 600 feet to the APE.

We also determined that 16 studies have previously been conducted within the records search study area. Only one survey directly investigated portions of the current APE: Report S-045088, the *Final Mitigated Negative Declaration for the Phillipsville Community Services District*, was completed in 2007 by T. Lasbury for the Phillipsville Community Services District and addressed the majority of the current APE as well as portions of Phillipsville. The study did not find any cultural resources within the APE. We would welcome any information you can give regarding other studies that have intersected the APE but may not have shown up in our records search.

Best regards,
Clarus Backes

Clarus Backes, RPA
Cultural Resources Group Manager

HELIX Environmental Planning, Inc.
11 Natoma Street
Suite 155
Folsom, CA 95630
916.365.8700 **tel**
323.974.9165 **cell**

619.462.0552 **fax**
ClarusB@helixepi.com
helixepi.com | LinkedIn | Facebook | Twitter

Attachment D

Representative Site Photos

Photograph 1. Typical vegetation within the APE, looking west. Photo taken November 11, 2020.

Photograph 2. Spring overview, looking west. Photo taken November 11, 2020.

Photograph 3. Spring water treatment plant, looking south. Photo taken November 11, 2020.

Photograph 4. Gravel road from Spring Canyon Road to the spring, looking southeast. Photo taken November 11, 2020.

Photograph 5. 140,000 gallon water storage tank, looking north. Photo taken November 11, 2020.

Photograph 6. Proposed water storage tank location, looking north. Photo taken November 11, 2020.

Photograph 7. Well house and associated infrastructure, looking north-northwest. Photo taken November 11, 2020.