MITIGATED NEGATIVE DECLARATION

Project Title	Palomino Estates Water System Improvements
Date of Preparation:	July 6, 2022
Lead Agency:	State Water Resources Control Board
Project Description:	The project would implement water treatment, storage and distribution improvements to the existing community of Palomino Estates. Project elements would occur within existing right of way or replace existing facilities.
Project Location:	Palomino Estates, easterly of Benbow, Humboldt County, CA
General Plan:	RL, RA20
Zoning:	R-1-B-6
Findings:	1. With the incorporation of mitigation measures, this project does not have the potential to degrade the quality of the environment, nor to curtail the diversity of the environment. 2. This project will not have a detrimental effect upon either short-term or long-term environmental goals. 3. This project will not have impacts that are cumulatively considerable. 4. This project will not have environmental impacts that will cause substantial adverse effects on human beings, either directly or indirectly. ○ The proposed project could not have a significant effect on the environment and a Negative Declaration will be prepared. • 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.
Public Review Period:	July 6, 2022 to August 4, 2022
Mitigation Measurements:	See Initial Study
Where to Submit Comments:	Gabriel Edwards
Contract Person:	Gabriel Edwards Environmental Scientist State Water Resources Control Board Division of Financial Assistance gabriel.edwards@waterboards.ca.gov
Attachment:	Initial Study

PALOMINO ESTATES WATER SYSTEM IMPROVEMENTS

Humboldt County, California

Initial Study

July 6, 2022

Prepared for:
State Water Resources Control Board
Division of Financial Assistance
1001 I Street
16th Floor
Sacramento, CA 95814

Prepared by:
Brelje & Race Engineers
475 Aviation Blvd., Suite 120
Santa Rosa CA 95403
(707) 576-1322

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PROJECT DATA

Project Title:	Palomino Estates Water System Improvements
Lead Agency:	State Water Resources Control Board (State Water Board)
Contact Person:	Gabriel Edwards Environmental Scientist State Water Resources Control Board Division of Financial Assistance gabriel.edwards@waterboards.ca.gov
Project Location:	Palomino Estates, easterly of Benbow, Humboldt County, CA

INTRODUCTION

The purpose of this Initial Study is to provide the Lead Agency, the State Water Board, with an assessment of relevant environmental information associated with implementation of the proposed project to determine whether a Negative Declaration, Mitigated Negative Declaration, or an Environmental Impact Report (EIR) will be required for the project. This environmental evaluation is intended to fully inform the Lead Agency, other interested agencies, and the public of the proposed project and associated environmental impacts. This Initial Study has been prepared in conformance with the requirements of §15063 of the 2022 California Environmental Quality Act (CEQA) Guidelines.

If the Lead Agency determines that there is no substantial evidence that the project may cause a significant effect on the environment, then a Negative Declaration may be prepared. A Negative Declaration may include conditions of approval to avoid or reduce potential impacts. However, if the Initial Study determines that the project may cause an unavoidable or unknown significant effect on the environment, the Lead Agency must prepare an EIR.

The Initial Study process also enables the Lead Agency to modify a project, mitigating adverse effects before an EIR is prepared, thereby enabling the project to move forward under a Mitigated Negative Declaration. This facilitates the environmental evaluation portion of the project development process and eliminates unnecessary EIRs.

PROJECT SETTING AND BACKGROUND

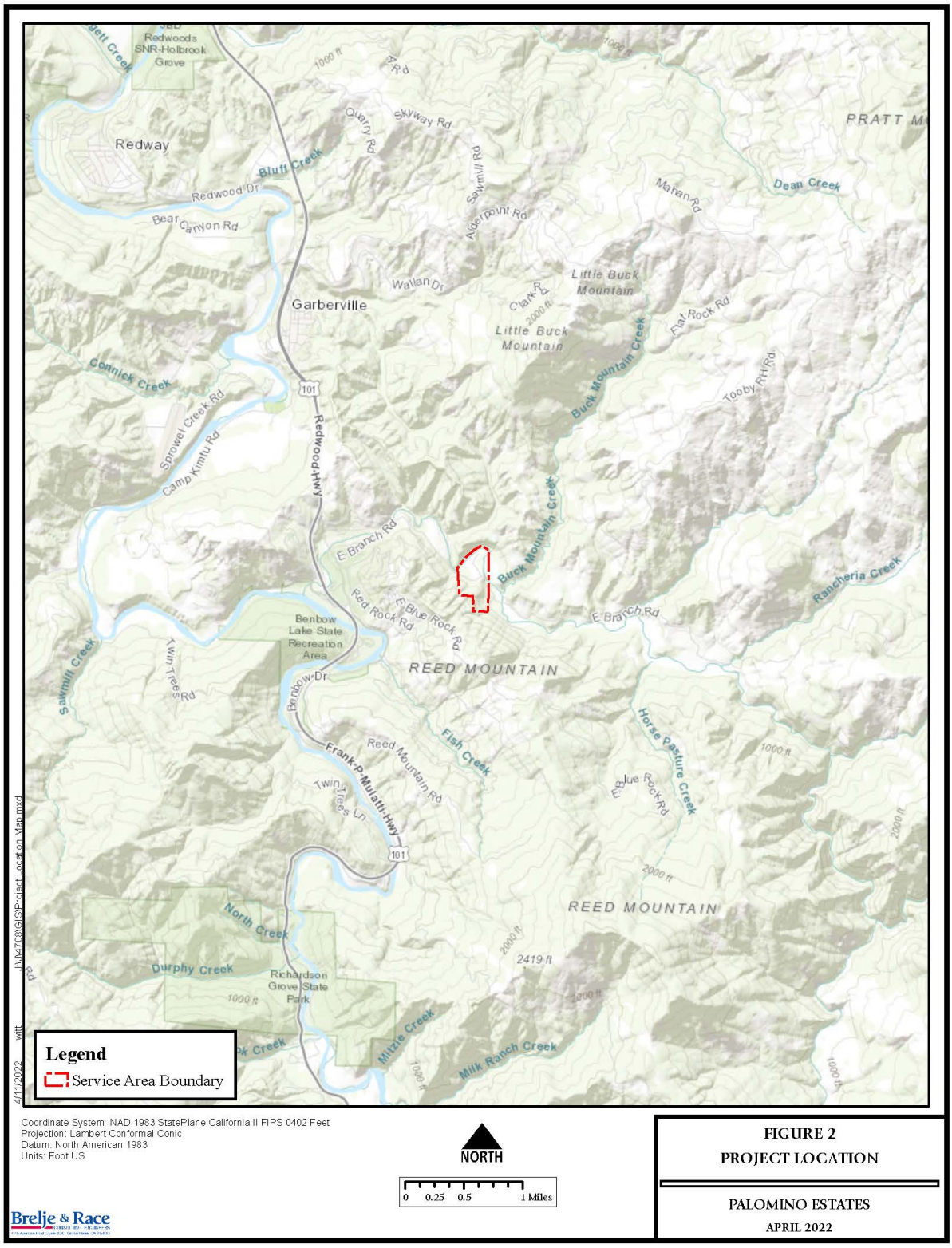
The Palomino Estates water system is owned and operated by the Palomino Estates Water Company (Water Company); a non-profit corporation incorporated on September 11, 1967, pursuant to the General Non-Profit Law of the State of California. The Water Company was formed to provide water service to the property owners of the Palomino Estates Subdivisions under Water Supply Permits initially issued to the Water Company by both the Humboldt-Del Norte County and State of California Departments of Public Health in 1967. The Water Company currently serves 19 connections. The Water Company is seeking funding from the State Water Board, Division of Financial Assistance to correct State Water Board, Division of Drinking Water-identified deficiencies in its existing water system.

The Palomino Estates subdivision is located on the south side of the East Branch South Fork Eel River, approximately 1.5 miles easterly of the unincorporated community of Benbow, California, in Humboldt County. The regional location of the project is shown on Figure 1 and the general location of the existing service area boundary is depicted on Figure 2.

The project is proposed in the unincorporated community of Palomino Estates, surrounded to the north and east by the East Branch South Fork Eel River and by hills and steep ridges to the west and south. The community itself sits on a ridge above the river that is forested except for some areas cleared for grazing. There are 19 water service connections in the community supporting approximately that many homes. Access to the project area is by East Branch Road via Benbow Drive from Highway 101.

Figure 1: Regional Location Map

Figure 2: Project Location map



PROJECT OBJECTIVES/PURPOSE AND NEED

Inspections of the water system were conducted by State Water Board Division of Drinking Water (DDW) staff in 2018 and 2019. Based on those inspections, a system deficiency letter was issued that identified several issues that need to be addressed. The most significant issue identified during the inspections involved water treatment.

The existing supply source is classified as "groundwater under the influence of surface water" and must be treated in accordance with the requirements set forth in the Surface Water Treatment Rules (SWTR). The existing treatment process is not an approved filtration method under the SWTR. The system also lacks required filter redundancy. Two additional areas of concern were noted during the DDW staff inspections. The wood roof on the existing cement masonry water storage tank was reported to be in poor condition and vulnerable to intrusion by rodents, birds, insects, or other animals. The tank also appeared to be near the end of its useful life. The other area of the concern was the lack of emergency power facilities that would maintain water production during a prolonged power outage that might occur due to storm damage, wildfires, or planned service power shutdowns.

The project objectives are to correct existing State Water Board-identified deficiencies, increase water storage, increase system efficiency and resilience, and improve firefighting capabilities.

POLICY SETTING

Palomino Estates is a small residential subdivision within unincorporated Humboldt County. Development in the project area is governed by the County of Humboldt's General Plan and Zoning Ordinance. No specific plans cover the project area that haven't been incorporated into the General Plan. General Plan designations include RL and RA20. The zoning within the residentially developed portion of the subdivision is R-1-B-6. Surrounding zoning is a combination of RS, AE, U and TPZ.

PROJECT DESCRIPTION

A draft Engineering Report was prepared for the project that identified several project alternatives and recommended a project (Project 1 in the engineering report). The recommended project includes improvements to the supply, treatment, storage, and distribution components, as summarized below. A project overview on an aerial image is provided on Figure 3. The proposed water distribution system is shown on Figure 4. The proposed treatment plant and storage improvements are shown on Figure 5.

SUPPLY SOURCE

Accumulated gravel, sand and silt would be removed from the bottom of the caisson (existing well). The existing submersible pump would be removed, interior plumbing modified, and a 5.0 HP submersible pump would be installed. A new electrical panel, pump controls and a manual generator transfer switch and receptacle would be installed. New water transmission piping would be installed to replace the existing segment uphill of East Branch Road and continue to a 5,000-gallon raw water treatment tank installed on a new concrete slab adjoining the east end of the treatment building.

Figure 3: Project Overview

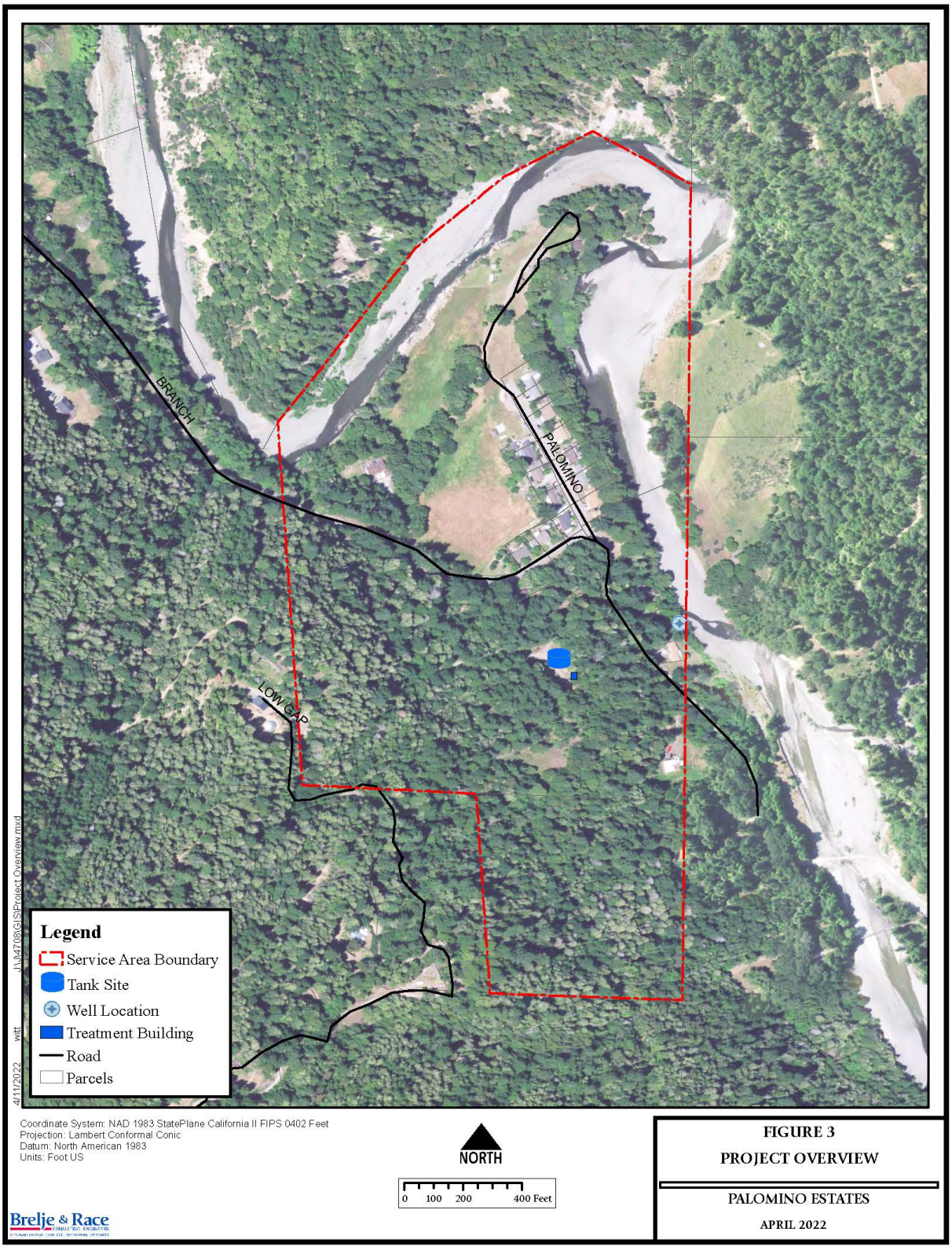


Figure 4: Proposed Water Distribution System

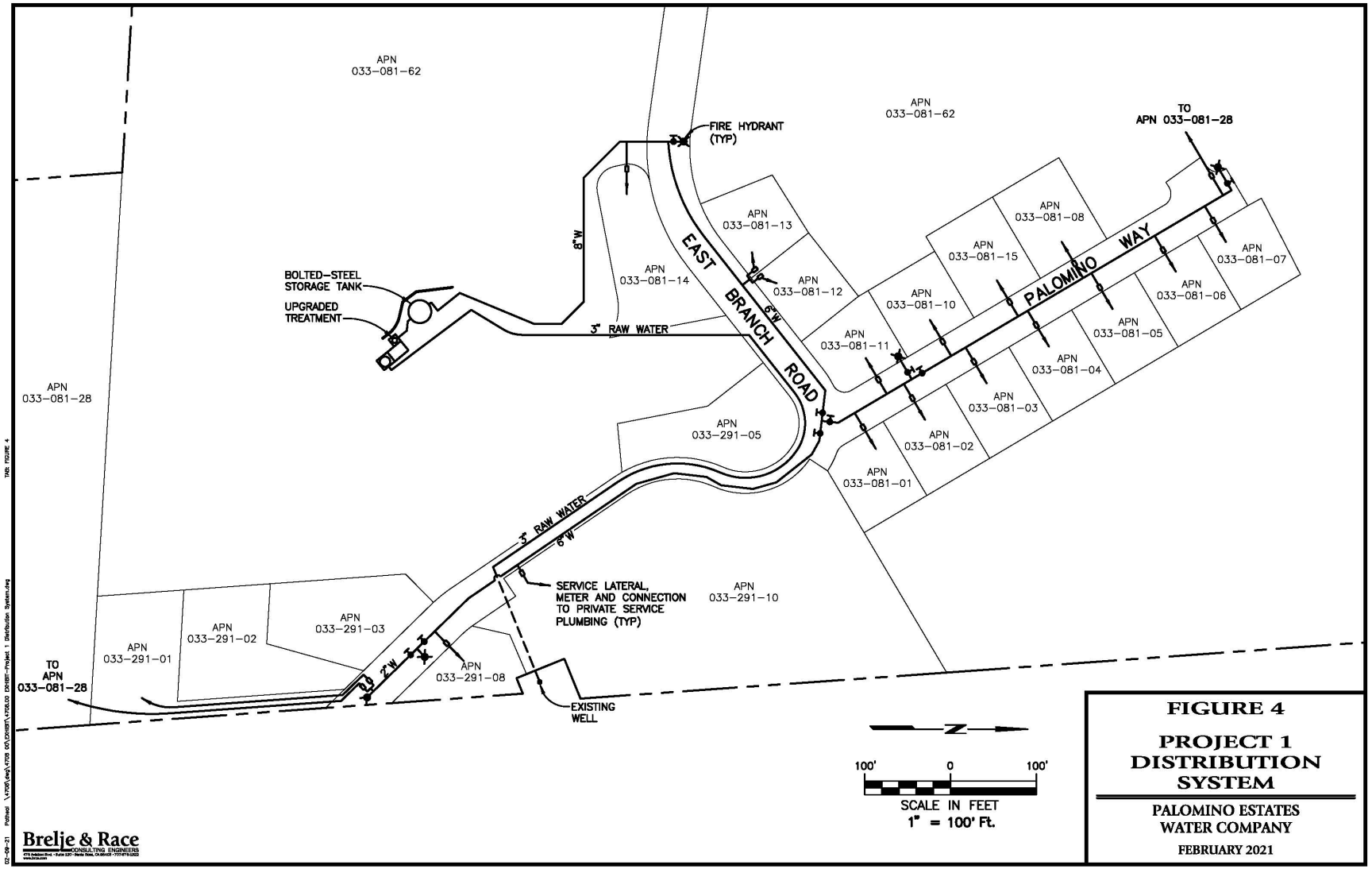
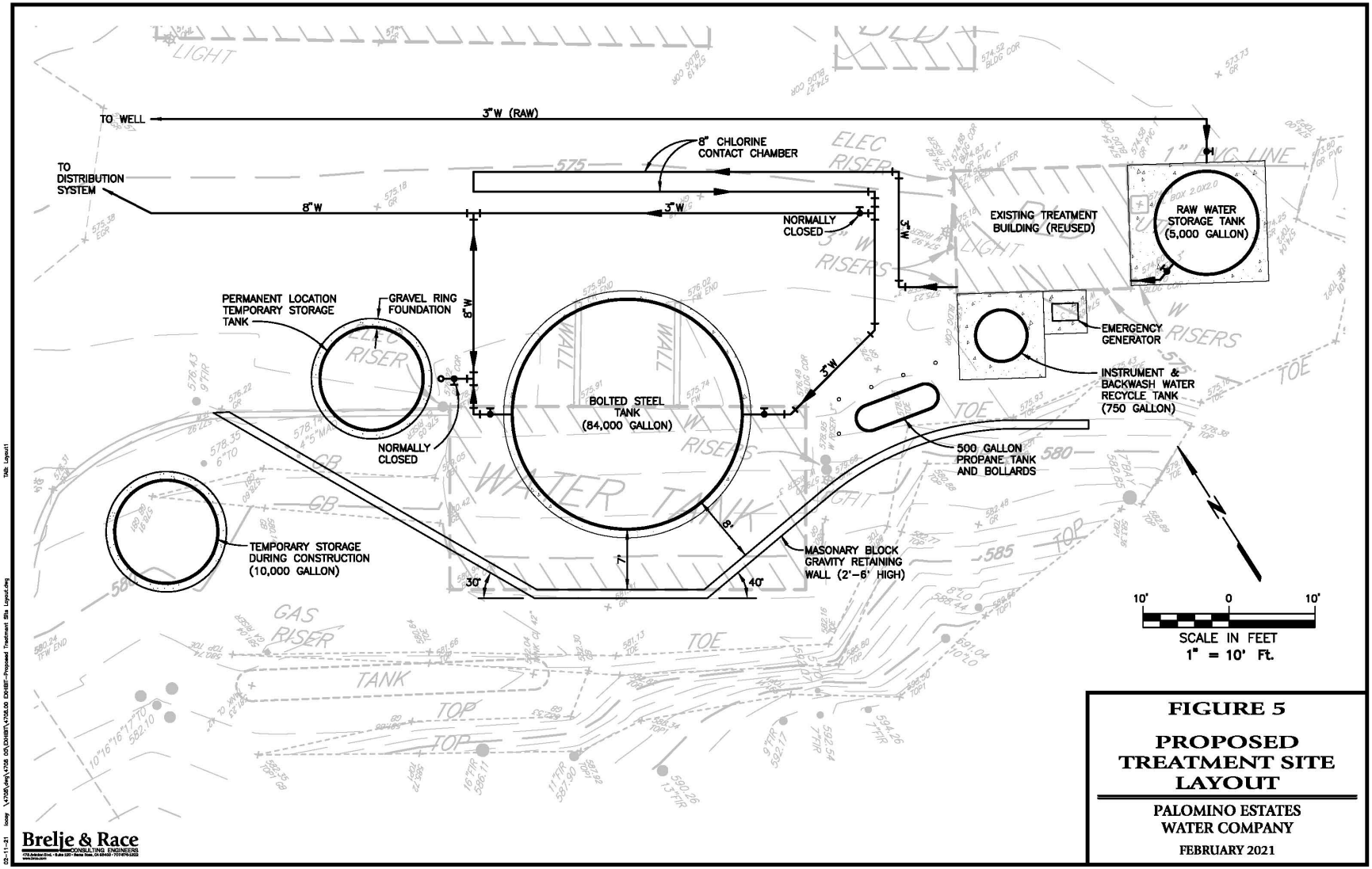


Figure 5: Proposed Water Treatment and Storage Improvements



Treatment

The existing treatment building would be retained and be used to house the new water treatment facilities. A total of four WallSpring units (ultrafiltration) would be installed, each unit with a flow meter and pressure gauges to monitor individual unit performance. The units would be supplied by a one HP pump which would vary pump rates depending on the number of units in service. The treatment system would typically be operated between 16 and 24 gallons per minute.

The common supply line to the bank of units would be connected to a hydro-pneumatic tank to serve as a supply source for membrane flushing. Backwash and instrument water recycle systems would be installed to recycle water generated during treatment unit backwash and flushing.

Pump controls and a manual generator transfer switch and receptacle would be installed. Batteries would be installed to power the supervisory control and data acquisition (SCADA) system during brief outages to allow for remote monitoring of storage.

Storage

A temporary 10,000-gallon plastic tank would be installed easterly of the work area to maintain service during construction. The existing storage tank would then be demolished, the tank pad expanded, and an 82,000-gallon bolted steel tank would be erected, generally within the footprint of the existing tank. The tank would be approximately 26 feet in diameter with an approximately 24-foot-high side shell with an operating water level of 20 feet. Anchorage for seismic protection would be required for a tank of this configuration.

Once the tank is completed, finish water piping would be disconnected from the temporary tank and rerouted to the new tank. The temporary tank would be retained and relocated to its permanent home next to the new tank for water storage redundancy.

Distribution System

New distribution piping would be installed throughout the service area. The system would include four fire hydrants, all capable of flowing at least 1,000 gallons per minute. New metered services would be installed to all improved parcels and reconnected to existing private service piping. A total of approximately 2,500 lineal feet of new main would be installed, all in existing roadways and driveways.

PROJECT CONSTRUCTION

It is anticipated that most of the construction would include two five-man crews working weekdays. One crew would likely work on pipeline installation and the other would work on the well, treatment and storage improvements. It is possible that one crew would construct the entire project. Equipment is anticipated to include: an excavator, a loader, a dump truck, a skip loader, an air compressor, a transport truck, an earth compactor, a pavement grinder, and a paving machine. Operations and material stockpiling would be constrained to paved areas or cleared areas at the existing water treatment site.

Schedule

It is anticipated that the construction would last approximately eight months if constructed in one construction season and begin in spring 2023. It is possible the project will be constructed over two construction seasons. It is assumed that there would be two crews working on different parts of the project, one on pipeline installation and one on the other improvements. Ground disturbing work during the rainy season would be limited by the project's erosion control plan, but construction within stabilized areas may occur during the rainy season.

Construction Equipment and Activities

PIPELINE INSTALLATION

In most areas, the pipeline would be installed using open cut trenching. The pipeline would primarily be installed within existing paved roadways and a driveway. One segment would be installed cross-country by pulling it through an existing pipe so no ground disturbance would occur. Another approximately 320-foot section toward the south end of the project would be installed with trenchless technology (directional drilling) cross country to avoid existing trees and a small wetland area. Pipeline construction rates are expected to be approximately 100 feet per day.

It is expected that the pipeline crew would utilize an excavator (midi or small standard size excavator), compaction equipment and loader and be supported by a one or two-axle six-yard dump truck for handling spoils and supplying backfill materials. A large hoe-ram may be needed to complete the excavation if large boulders are encountered. The trench depths would generally be 36 inches deep and 24 inches wide. It is anticipated that 20 to 25 cubic yards of material would be exported from trenches per day and the same amount of material would be imported per day for backfill resulting in approximately two truck trips per day associated with trenching. Total ground disturbance associated with pipeline installation is estimated to be approximately 7,000 square feet.

If shallow groundwater is encountered during construction activities, dewatering activities would be required. Groundwater would be discharged to an appropriate on-site area or pumped into tanks for proper disposal off-site. In the event that groundwater encountered during pipeline construction could not be contained on site or could not be pumped into tank trucks and transported to a disposal facility, the groundwater could be discharged to a surface water body. This would require obtaining a General Order for Dewatering and Other Low Threat Discharges to Surface Water Permit (National Pollutant Discharge Elimination System (NPDES) North Coast Regional Water Quality Control Board (Regional Board).

During construction, vertical wall trenches would be temporarily closed at the end of each workday, either by covering with steel trench plates, using backfill material, or installing barricades to restrict access.

Trench Backfill

Trench backfilling would begin immediately after the pipe is installed in the trenches. Appropriate backfill materials would be used to prevent damage to the pipelines and allow adequate backfill compaction. Imported backfill would be delivered to stockpiles near the open trenching. Once backfilling is complete, road surface restoration would occur.

Surface Restoration

Typical surface restoration within paved roadways would include compacting 18-inches of Class 2 aggregate base and installing a 3-inch thick pavement patch that extends six inches beyond each side of the trench over its entire length after backfilling and compaction are complete. The surface restoration crew would typically use a grinder, a skip loader, a roller, and a paving machine. It is anticipated that the paving would produce about one truck of off-haul and require two trucks of asphalt.

Tank Construction and Treatment Building Rehabilitation

Tank construction would occur in the following sequence: prep pad for temporary tank site; deconstruct the existing concrete storage tank; construct retaining wall and prepare pad for new bolted storage tank; construct new storage tank; and move temporary tank to permanent location. Treatment plant improvements would occur simultaneously to ensure continuous water treatment during construction. Approximately 1,150 square feet of concrete would be placed for tank foundations. The remainder of the site would be surfaced with Class 2 aggregate base (approximately 2,240 square feet).

Construction of the tank and treatment improvements would likely occur concurrently with water main installation. It is estimated that total ground disturbance would be approximately 5,000 square feet to accommodate the proposed improvements.

GROWTH INDUCEMENT POTENTIAL

The proposed project does not induce growth. The project would replace deficient water mains, increase water storage, provide modern water treatment, and improve the existing well within the existing water system to serve existing connections. Any growth within the service area would be according to relevant and currently planned for General Plan and zoning designations.

ALTERNATIVES ANALYSIS

This section presents all project alternatives including a no-project alternative, a consolidation alterative, and two construction project alternatives that are combinations of the proposed project.

NO PROJECT

Under the no project alternative, utilization of an unapproved surface water treatment process would continue. The existing process poses a greater health risk to the residents than would otherwise be present if it were replaced with an approved treatment technology. The no project alternative would not resolve the limited fire protection (storage or flows) available within the community or the existing above ground water transmission main that is susceptible to fire (and other disruptions). The no project alternative would leave all existing service connections unmetered. Presently there is no financial incentive to conserve water. The no project alternative would not have the construction related (mitigable) impacts but would not resolve the existing health hazard, improve water conservation or resolve existing fire vulnerabilities of storage or fire flows.

CONSOLIDATION

Consolidation was evaluated as an alternative for Palomino Estates Water Company. There are three public water system within a five-mile radius of Palomino Estates: the Benbow water system owned and operated by the Del Oro Water Company; the Garberville water system owned and operated by the Garberville Sanitary District; and, the Redway water system owned and operate by the Redway Community Services District. While the Garberville and Redway systems are closer than five miles to Palomino Estates, the roadway network between the communities is circuitous and would require substantial right-of-way acquisitions to accomplish a physical connection. After consultation with DDW District Office staff, it was agreed that the only system necessary to consider for consolidation was the Benbow water system.

Physical consolidation to the Benbow water system would involve installing a pump station and approximately 7,300 lineal feet of transmission piping designed to deliver a minimum of 20 gallons per minute to the Palomino Estates service area. The cost to make such a connection would be significant, on the order of $0.75M and would do nothing to correct distribution system deficiencies. Also, available public right-of-way to accommodate the transmission main is slide prone. A representative of the Del Oro Water Company indicated there was no interest in discussing system consolidation further and that Benbow does not presently have adequate supply and treatment capacity to serve Palomino Estates.

From an environmental perspective, consolidation with the Benbow system would have expanded the construction-related impacts identified during review of the proposed project. An additional 7,300 linear feet of transmission main would need to be installed. Due to treatment and capacity limitations to serve Palomino Lakes, the Benbow treatment system and storage would likely have needed to be expanded, negating any offset associated with not improving Palomino Estates' treatment and storage facilities.

WATER SYSTEM RENOVATION PROJECT 2

Project 2 would have included all the proposed project components except the existing six-inch diameter piping in East Branch Road and Palomino Way. Replacement of those segments (approximately 900 lineal feet) would have been deferred. All existing service connections along the segment would have been replaced with new service laterals with meters.

The Project 2 alternative would have essentially the same environmental impacts as the proposed project. The deferred water main replacement is all within roadway so other identified impacts would remain. The Project 2 alternative would not repair the dated pipelines that currently experience periodic leaks, so the water conservation elements of the proposed project would not be equaled by the Project 2 alternative.

OTHER PUBLIC AGENCY APPROVALS

The project is under State Water Board review authority. The project may require additional permitting approvals from the following agencies:

COUNTY OF HUMBOLDT

All work within the County of Humboldt right of way would require encroachment permits.

North Coast Regional Water Quality Control Board

The Regional Board has discretionary authority regarding the following permits and approvals, should they be necessary:

- NPDES Permit. The U.S. Environmental Protection Agency (EPA) has delegated responsibility for issuance of Clean Water Act (CWA) NPDES permits to the Regional Water Quality Control Boards within California. These permits are required to ensure protection of surface waters from construction and other land-disturbing activity.
- Section 401 Water Quality Certification for potential impacts to wetlands or waters.
- Waste Discharge Requirements for potential impacts to wetlands or waters of the state.

US Army Corps of Engineers

The US Army Corps of Engineers (Corps) would have discretional authority regarding the following permit if the project impacts wetlands or occurs within the "ordinary high water mark" of a stream or river:

- Section 404 of the Clean Water Act for potential impacts to wetlands and waters of the US.

State of California Water Resources Control Board, Division of Drinking Water (DDW)

DDW Klamath District requires an amendment to the existing water system operating permit due to the water system improvements.

State of California Department of Fish & Wildlife (CDFW)

CDFW may require a streambed alteration agreement for any project components that would be constructed within a stream or river or its riparian corridor. CDFW would also have permit authority over the project if it impacts state-listed plant or animal species.

U.S. Fish and Wildlife Service (FWS) and the California Department of Fish and Wildlife (CDFW)

Consultation is required with these agencies if a project has the potential to take or otherwise harm federally listed or state-protected wildlife and plant species.

ENVIRONMENTAL SIGNIFICANCE CHECKLIST

The following list of questions is provided by Appendix G of the CEQA Guidelines in order to determine a project's environmental impacts. The checklist utilized herein was updated by the State of California in 2019.

Based on the project description, answers to the questions fall into one of four categories:

- Potentially Significant Impact
- Less Than Significant Impact with Mitigation Incorporation
- Less Than Significant Impact
- No Impact

A "No Impact" response indicates that no impact would result from implementation of the project. A "Less Than Significant Impact" response indicates that an impact would occur, but the level of impact would be less than significant. A "Less Than Significant with Mitigation Incorporation" response indicates that an impact is involved and, with implementation of the identified mitigation measure, such impact would be less than significant. A "Potentially Significant Impact" response indicates that there is substantial evidence that impacts may be significant if mitigation measures are unknown, infeasible, or not proposed. Each response is discussed at a level of detail commensurate with the potential for adverse environmental effect.

The discussion following each checklist consists of a *Setting* section including environmental and regulatory information, an *Analysis* section, a *Cumulative Impacts* discussion, and a section for identification of *Mitigation Measures*, as necessary. The *Analysis* section includes a discussion addressing whether the project would result in potential adverse environmental impacts. All potential impacts have been considered, including on-site and off-site impacts, direct and indirect impacts, construction and operation-related effects, as well as cumulative effects. The *Cumulative Impacts* section presents information regarding the project's potential cumulative impacts and is included in this section. If an impact(s) has been identified and mitigation is required to reduce the impact to a less than significant level, then such measures are contained in the *Mitigation Measures* sections.

I AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
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. In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	□	□	□	■
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	□	□	□	■

Environmental Setting

The project is in the unincorporated community of Palomino Estates in Humboldt County, California. Palomino Estates is surrounded to the north and east by the East Fork of the South Fork Eel River and by hills and steep ridges to the west and south. The community itself sits on a ridge above the river that is forested except for some areas cleared for grazing. There are 19 service connections in the community supporting approximately that many homes. Access to the project area is by East Branch Road via Benbow Drive from Highway 101.

The community of Benbow is approximately 1.3 miles west of Palomino Estates. Garberville is the nearest urbanized community (a census designated place with a population of approximately 900), approximately three miles northwest. The project area is predominantly rural residential in nature and surrounded by largely undeveloped hillsides. The major sources of light and glare in the project vicinity are from residential development. Highway 101 through the area is an eligible state scenic highway but is not officially designated[1].

Photos of the community and the treatment and storage site are shown below.

[1] https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways

Community of Palomino Estates looking north on Palomino Way.

Palomino Estates water treatment and storage site. The existing water storage tank is on the right.

Analysis

a. Would the project have a substantial adverse effect on a scenic vista?

A scenic vista is generally considered a view of an area that has remarkable scenery or a resource that is indigenous to the area. Although the project area is not considered to be a scenic vista for the purposes of this environmental analysis (due to its lower elevation than surrounding areas), the site does have characteristics that most people would consider aesthetically pleasing and a positive visual resource. Most of the project would occur in existing roadways, the treatment site or easements that are generally surrounded by the rural residential development, or small agricultural uses that make up the community. The entire community is surrounded by very lightly developed rural uses with dense forest to the west and south and the river to the north and east. While the community is visible from the mountains across the river, the land is private, not a publicly accessible scenic vista and the proposed project improvements would either be located underground (pipelines) or are replacements of existing facilities (well, storage tank, and treatment plant).

The proposed project would not result in the disturbance or elimination of open space areas or remove an object of aesthetic value. The project would not result in long-term physical adverse changes to the height or bulk of structures or view blockages within the view shed of the project area or be visible from Highway 101. The project primarily involves below-ground water pipelines that would not be visible once construction is complete. The treatment plant improvements and water tank would occur on the existing site, replace existing facilities and are not visible from offsite due to location, topography, and tree cover. Therefore, obstruction of scenic views would not occur.

Construction activities would create dust, expose soil from excavation and grading, and create soil piles from trenching and excavation, but these activities would cease after construction is complete. Short-term construction impacts associated with the project would not have a significant impact on any scenic vista.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Highway 101 through the general project area is eligible as a state scenic highway but is not officially designated. The County has not designated any scenic corridors in the project area.

The project would primarily be installed below grade with all surfaces restored. None of the project elements would be visible from Highway 101. Any visual impacts would be short term and limited to the construction phase of the proposed project. As such, the proposed project would not introduce features that would adversely affect the use of Highway 101 as a scenic highway, should it be officially designated, and would have no impact.

c. In nonurbanized areas, would the project 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?

The project is in a nonurbanized area with minimal offsite public views of the subdivision. Like much of Humboldt County, the visual character is that of a small residential community within the surrounding

forested mountains. The project would not significantly degrade the existing visual character of the project area or its surroundings. The project would primarily be installed below grade in existing roadways or public utility easements or at the existing treatment plant location and therefore would not substantially degrade the existing visual character of the site or surroundings.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The project would not create a new substantial source of light or glare. New and replacement water mains and appurtenances would be constructed below grade with all surfaces restored. Minor maintenance lighting may be provided at the treatment location but would be minor, generally used only during nighttime maintenance, and be contained to the site.

Cumulative Impacts

There are no adverse cumulative environmental impacts to aesthetic resources resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to aesthetic resources have been identified; therefore, no mitigation is required.

II AGRICULTURAL & FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment 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 (CalFire) regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project 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. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?	□	□	□	■
c. Would the project 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. Would the project result in the loss of forest land or conversion of forest land to non-forest use?	□	□	□	■
e. Would the project 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 project area is a small residential development with a small agricultural use immediately to the west and northwest. The project area is otherwise primarily surrounded by undeveloped land. The zoning within the residentially developed portion of the subdivision is R-1-B-6. Surrounding zoning is a combination of RS, AE, U and TPZ, as shown on Figure II-1. Land uses in the project area include rural residential uses and small-scale agricultural uses. The project would occur almost entirely in existing roadways, developed driveways, or at the existing treatment plant site.

REGULATORY SETTING

Farmland Mapping and Monitoring Program

Agricultural lands within the state of California are rated according to soil quality and irrigation status by the Farmland Mapping and Monitoring Program (FMMP). The FMMP produces maps and statistical data used for analyzing impacts on California's agricultural resources. The best quality land is called Prime Farmland, followed by Unique Farmland, Farmland of Statewide Importance, and so on, in decreasing order of importance. The maps are updated every two years with the use of aerial photographs, a computer mapping system, public review, and field reconnaissance.

Humboldt County has not been mapped by the FMMP, so Important Farmland mapping information is not available for the project location. Figure II-1 shows agricultural zoning in and around the project location.

Williamson Act

Agricultural land in the project area may also be subject to the California Land Conservation Act of 1965, more commonly referred to as the Williamson Act. The Williamson Act enables local governments to enter contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments that are lower than normal because they are based on farming and open space uses as opposed to full market value. Land under a Williamson Act contract is shown on Figure II-1.

Analysis

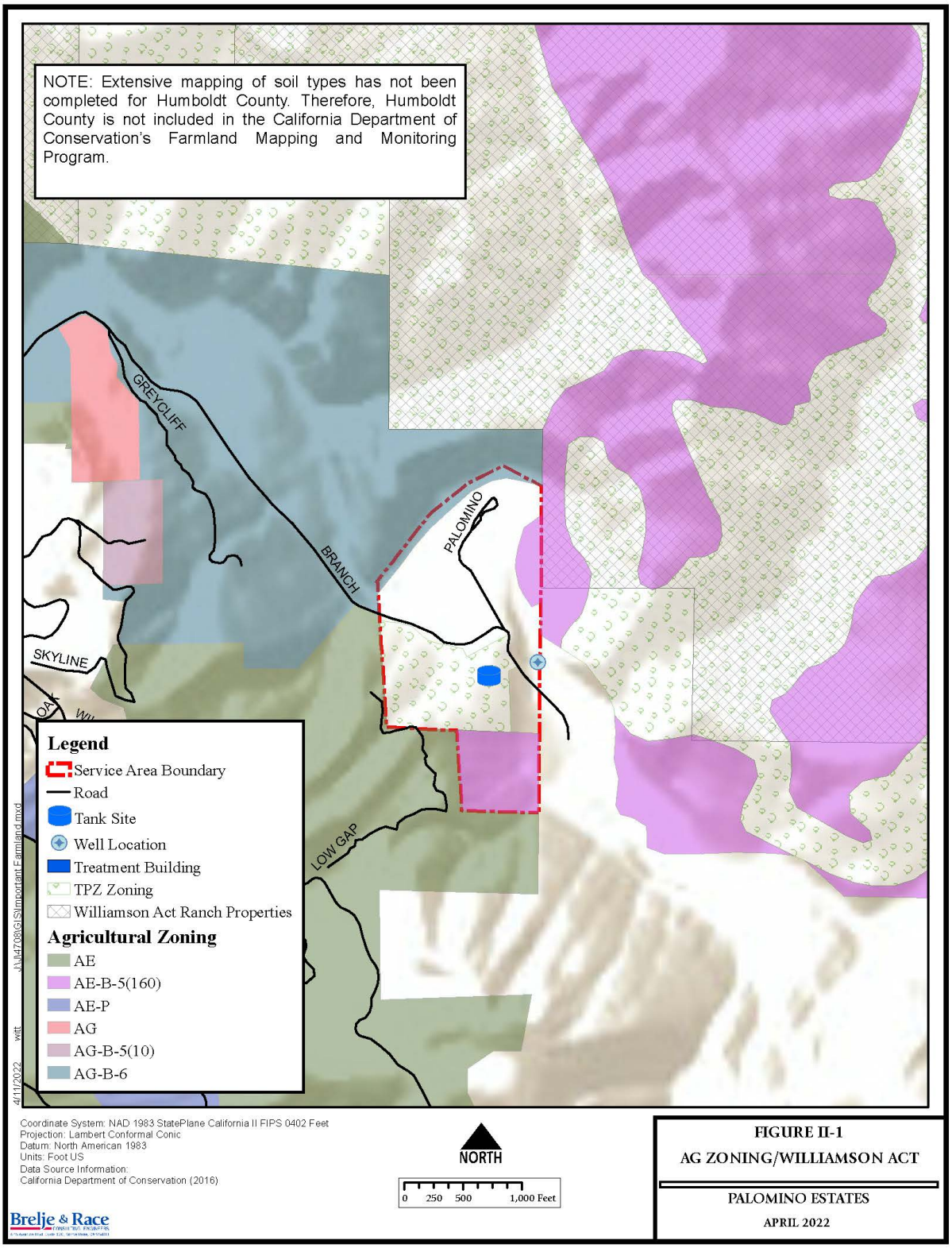
a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The Farmland Mapping and Monitoring Program has not mapped Important Farmland in Humboldt County. However, project components would generally be located within developed roadways, roadway shoulders, gravel driveways or already developed areas that do not support farmland. The project would not convert Farmland to non-agricultural uses.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

The project locations are generally within existing roadways or gravel roads that are not under agricultural production. Zoning designations in the project area allow agricultural uses or are specifically zoned for agricultural use. There are numerous Williamson Act contracts in the project vicinity, but none exist within the water service area, as shown on Figure II-1. The project would not remove any land from agricultural production and would therefore not conflict with agricultural zoning or Williamson Act contracts.

Figure II-1: Agricultural Zoning and Williamson Act Contracts



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

Forest land, as defined by the U.S. Forest Service, includes land at least ten percent of which is stocked by trees of any size, or land formerly having had such tree cover that would be naturally or artificially regenerated. Forest land includes transition zones, such as areas between heavily forested and non-forested lands that are at least ten percent stocked with forest trees and forest areas adjacent to urban and built-up lands.

The project does not propose any activities related to timber harvest nor would it result in the conversion of forest land to non-forest uses. The treatment plant site is located on a parcel that is zoned as TPZ, as shown on Figure II-1, and there is considerable area around the project zoned for timber production, shown on Figure II-2. However, the treatment plant site was developed at the time of the subdivision to serve the residents and no expansion of that cleared area is proposed that would impact trees. As such, there would be no impact to forest land or conversion of designated land to non-forest uses.

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

None of the project locations support forest land and none of the project components would extend outside of existing facility areas in any way that would impact forestland. The treatment plant location is within a parcel currently zoned TPZ, but the area was cleared during development of the original water system to serve the community and no expansion beyond the existing limits of that clearing is proposed. The proposed project would not result in any impact to forest land.

e. Would the project 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?

Because replacement water mains would be located underground and primarily in existing roadways and the well and storage tank would replace existing facilities in kind and place, the project would not impact agricultural resources in the project area or result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

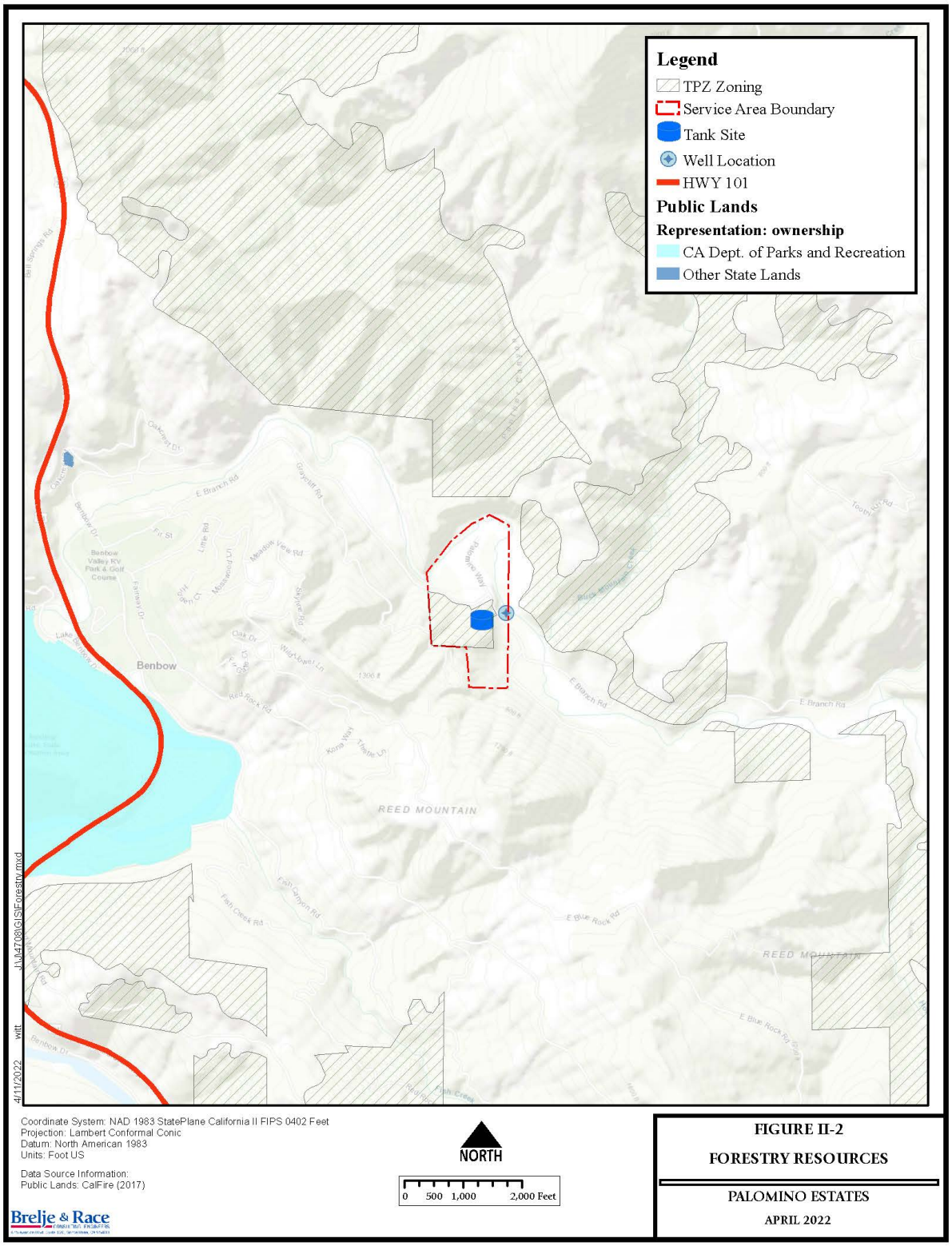
Cumulative Impacts

There are no adverse cumulative environmental impacts to agricultural and forestry resources resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to agricultural and forestry resources have been identified; therefore, no mitigation is required.

Figure II-2: Forestry Resources



III AIR QUALITY

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:	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project conflict with or obstruct implementation of the applicable air quality plan?	□	□	□	■
b. Would the project 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. Would the project expose sensitive receptors to substantial pollutant concentrations?	□	■	□	□
d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	□	□	□	■

Environmental Setting

The project is located within the North Coast Air Basin that includes Del Norte County, Humboldt County, Mendocino County, and the northern portion of Sonoma County. The North Coast Unified Air Quality Management District (NCUAQMD) monitors and manages air quality in Humboldt, Del Norte and Trinity Counties.

AIR QUALITY

The NCUAQMD provides the following description of air quality in the area: The NCUAQMD is listed as "attainment" or "unclassified" for all the federal and state ambient air quality standards, except for the state 24-hour particulate (PM10) standard in Humboldt County only. The NCUAQMD has not exceeded the federal annual standard for particulate matter during the last five-year period. Primary sources of particulate matter in the Eureka area are on-road vehicles (engine exhaust and dust from paved and unpaved roads), open burning of vegetation (both residential and commercial), residential wood stoves, and stationary industrial sources (factories). Cars, trucks, and other vehicles are considered a source of particulate matter within the NCUAQMD. Fugitive emissions because of vehicular traffic on unpaved roadways is the largest source of particulate matter emissions within the NCUAQMD[2].

Regulatory Setting

Air quality in the project vicinity is regulated by several jurisdictions, including the US EPA, the California Air Resources Board (CARB), and the NCUAQMD. These entities, described below, develop rules, regulations, and policies to attain the goals or directives imposed upon them through legislation.

[2] http://ncuaqmd.org/index.php?page=aqplanning.ceqa

FEDERAL REGULATIONS

The Clean Air Act

The Federal Clean Air Act (FCAA) required the US EPA to establish National Ambient Air Quality Standards (NAAQS) and also set deadlines for their attainment. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects, such as visibility restrictions. The FCAA also required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The FCAA Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The US EPA has responsibility to review all state SIPs to determine conformance to the mandates of the FCAA, and the amendments thereof, and determine if implementation would achieve air quality goals. If the US EPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) may be prepared for the nonattainment area that imposes additional control measures. Failure to submit an approvable SIP or to implement the plan within the mandated time frame may result in sanctions being applied to transportation funding and stationary air pollution sources in the air basin.

Federal Conformity Requirements

The FCAA Amendments of 1990 require that all federally funded projects come from a plan or program that conforms to the appropriate SIP. Federal actions are subject to either the Transportation Conformity Rule (40 Code of Federal Regulations [CFR] 51[T]), which applies to federal highway or transit projects, or the General Conformity Rule (40 CFR 51[W]), which applies to all other federal actions.

STATE REGULATIONS

California Clean Air Act

The California Air Resources Board (CARB) is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act of 1988. The California Clean Air Act (CCAA) requires that all air districts in the state endeavor to achieve and maintain California Ambient Air Quality Standards (CAAQS) for ozone, CO, sulfur dioxide (SO_2), and nitrogen dioxide (NO_2) by the earliest practical date. The CCAA specifies that districts focus particular attention on reducing the emissions from transportation and area-wide emission sources, and the act provides districts with authority to regulate indirect sources. Each district plan is required to either (1) achieve a five percent annual reduction, averaged over consecutive three-year periods, in district-wide emissions of each nonattainment pollutant or its precursors, or (2) provide for implementation of all feasible measures to reduce emissions. Any planning effort for air quality attainment would thus need to consider both state and federal planning requirements.

LOCAL REGULATIONS

North Coast Unified Air Quality Management District (NCUAQMD)

The NCUAQMD is designated by law to adopt and enforce regulations to achieve and maintain ambient air quality standards. The NCUAQMD is a regional agency created by the state that regulates stationary sources of air pollution within the portions of the North Coast Air Basin in Humboldt, Del Norte and Trinity Counties. The NCUAQMD also regulates open burning and is delegated a variety of other programs such as state Air Toxic Control Measures (ATCMs) and federal New Source Performance Standards. The main purpose of the NCUAQMD is to enforce local, state, and federal air quality laws, rules, and regulations to maintain the ambient air quality standards and protect the public from air toxics through local, CARB ATCM, and federal EPA National Emission Standards for Hazardous Air Pollutants specific control regulations. Because the North Coast Air Basin is generally an attainment area (or is unclassified) for all state and federal criteria pollutants (excepting PM10), it is not required to prepare air quality attainment/management plans.

CRITERIA POLLUTANTS

Pollutants subject to federal ambient standards are referred to as "criteria" pollutants because the US EPA publishes criteria documents to justify the choice of standards. The federal and California ambient air quality standards are defined below for criteria pollutants. The federal and state ambient standards were developed independently with differing purposes and methods, although both federal and state standards are intended to avoid health related effects.

State

- Unclassified: A pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- Attainment: A pollutant is designated attainment if the state standard for that pollutant was not violated at any site in the area during a three-year period.
- Nonattainment: A pollutant is designated nonattainment if there was at least one violation of a State standard for that pollutant in the area.
- Nonattainment / Transitional: A subcategory of the nonattainment designation. An area is designated nonattainment / transitional to signify that the area is close to attaining the standard for that pollutant.

Federal

- Unclassified: Any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.
- Attainment: Any area that meets the national primary or secondary ambient air quality standard for the pollutant.
- Nonattainment: Any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant.

Current California and Federal standards for certain types of pollutants are shown below.

Pollutant	Averaging Time	State Standard	Federal Primary Standard
Ozone	1-Hour 8-Hour	0.09 ppm 0.07 ppm	-- 0.070 ppm
PM10	Annual 24-Hour	20 ug/m^3 50 ug/m^3	-- 150 ug/m^3
PM2.5	Annual 24-Hour	12 ug/m^3 ---	12 ug/m^3 35 ug/m^3
Carbon Monoxide	8-Hour 1-Hour	9.0 ppm 20.0 ppm	9.0 ppm 35.0 ppm
Nitrogen Dioxide	Annual 1-Hour	0.03 ppm 0.18 ppm	.053 ppm 100 ppb
Sulfur Dioxide	24-Hour 3-Hour 1-Hour	0.04 ppm -- 0.25 ppm	.14ppm -- 75 ppb
Lead	30-Day Avg. Calendar Quarter 3-Month Avg.	1.5 ug/m^3 -- --	-- 1.5 ug/m^3 0.15 ug/m^3

ppm = parts per million

ppb = parts per billion

ug/m^3 = micrograms per cubic meter

MONITORING STATION DATA

Ambient air quality measurements are routinely conducted at nearby air quality monitoring stations. NCUAQMD maintains four monitoring stations with two in Humboldt County, the Jacobs Station and Humboldt Hill Station[3]. The NCUAQMD is designated as attainment or unclassified for all state and federal standards except state PM10.

Both the CARB and the US EPA use this type of monitoring data to designate areas according to attainment status for criteria air pollutants established by the agencies. The purpose of these designations is to identify those areas with air quality problems and thereby initiate planning efforts for improvements. The three basic designation categories are nonattainment, attainment, and unclassified, as previously defined.

[3] https://www.ncuaqmd.org/air-quality-network-plans

Analysis

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

The project is located within the NCUAQMD. The NCUAQMD is designated to be in attainment or unclassified for all federal and state constituents, except for PM10 (see b, below). The NCUAQMD does not have an applicable air quality plan as air quality generally meets attainment standards. The project does not increase long-term emissions and would not impact air quality plans.

b. Would the project 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?

The NCUAQMD is responsible for monitoring and reporting air quality data for the county within the North Coast Air Basin. Both the US EPA and the California Air Resources Board have established ambient air quality standards for common pollutants. These ambient air quality standards represent safe levels that avoid specific adverse health effects associated with each pollutant, termed criteria pollutants.

As shown in the table below, with the exception of PM10, the NCUAQMD is designated to be in attainment or unclassified for all federal constituents and in attainment or unclassified for all state constituents. The NCUAQMD does not have any management plans as air quality generally meets attainment standards.

Standard	2019 State Status[4]	2018 Federal Status
Ozone 8-Hour	Attainment	Unclassified/Attainment
PM2.5	Attainment	Unclassified/Attainment
PM10	Nonattainment	Unclassified
Carbon Monoxide	Attainment	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	N/A
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Attainment	N/A
Visibility Reducing Particles	Attainment	N/A

The NCUAQMD has not adopted its own thresholds of significance for project emissions. The NCUAQMD utilizes the Best Available Control Technology (BACT) emission rates for stationary sources as defined and listed in the NCUAQMD Rule and Regulations, Rule 110 to determine significance. By comparison, the Bay Area Air Quality Management District's (BAAQMD) 2017 Air Quality Guidelines[5] establish recommended thresholds of significance for criteria pollutants for project construction and operation for CEQA analysis. The BAAQMD thresholds and the BACT emission rates are very similar. Neither agency provides screening levels for this type of project, so it is necessary to conduct an analysis of air quality impacts. Modeling for the pipeline construction was conducted using the Road Construction Emissions Model (RoadMod), Version 8.1.0, per Air Quality Guidelines

[4] https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations

[5] *California Environmental Quality Act Air Quality Guidelines*. Bay Area Air Quality Management District. May 2017.

recommendations for linear pipeline projects. Modeling for construction at the tank site was conducted using CalEEMod 2020.4.0.

The NCUAQMD BACT Emissions Rates are presented below with a comparison to modeled project construction-related emissions. Emissions shown below assume non mitigated emissions with an approximately eight-month construction period.

NCUAQMD BACT Emissions Rates[6]		Project Emissions	
Criteria Air Pollutants & Precursors	**Construction-related Average Daily Emissions (lb/day)**	**Pipeline Construction Emission Estimates (lb/day)**	**Tank Site Construction Emission Estimates (lb/day)**
Carbon Monoxide (CO)	500	23.3	1.19
Reactive Organic Gases (ROG)	50	1.62	0.14
Nitrous Oxides (NOx)	50	15.78	1.33
Particulate Matter (PM10)	80	10.00	0.35
Particulate Matter (PM2.5)	50	2.08	0.18

As shown in the table above, the project's conservative construction-related and non-mitigated emissions are modeled to be lower than the NCUAQMD BACT Emissions Rates. Since the pipeline and tank site improvements could be constructed during different calendar years, they are presented separately. If constructed in the same calendar year, modeled emissions (pipeline and tank site combined) remain well below the BACT thresholds. Based on the above, emissions associated with project construction are less than significant. Project operational emissions would be essentially unchanged due to the replacement and improvement nature of the project and were therefore not modeled.

Off road dust is a contributing factor to NCUAQMD's PM10 exceedances. The project area primarily utilizes paved roads, and those roads would be restored upon project completion. Additionally, the project is a replacement/improvement project and is not growth inducting, so no additional traffic on local unpaved roads would occur. In the long-term, the project will not impact PM10 levels in the project area.

Construction activities associated with the project have the potential to create localized short-term dust impacts for PM10 and PM2.5. Mitigation Measure AQ1 includes feasible control measures and reduces such impacts to a less than significant level, as recommended by the BAAQMD's Basic Construction Mitigation Measures.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

As a water infrastructure improvement project for an existing water system, operation of the project would not alter air quality in any appreciable way. During the construction phase of the project, generation of dust and equipment exhaust can be expected to increase. A portion of this dust would contain PM10 and PM2.5, which are criteria air pollutants regulated at both the federal and state levels.

[6] http://ncuaqmd.org/files/rules/reg%201/Rule%20110.pdf

Diesel particulate matter would be emitted by construction equipment and trucks. Equipment and trucks also emit nitrogen oxides during construction that contribute to regional ozone levels.

Although demolition, grading, and construction activities would be temporary, they would have the potential to cause both nuisance and health air quality impacts. PM10 is the pollutant of greatest concern associated with dust and the NCUAQMD is designated as nonattainment for PM10. If uncontrolled, PM10 levels downwind of actively disturbed areas could possibly exceed state standards. Construction activities in the project area could impact residents within and adjacent to the community. To mitigate air quality impacts associated with exposing sensitive receptors to substantial pollutant concentrations to less than significant levels, Mitigation Measure AQ-1 shall be implemented.

The NCUAQMD suggests utilizing the California Air Pollution Control Officers Association (CAPCOA) Health Risk Assessment for Proposed Land Use Project[7] for assessment of potential risks related to or from toxic air pollution. The Health Risk Assessment includes screening risk assessment criteria (established in Table 2: Recommendations on Siting New Sensitive Land Uses Such as Residences, Schools, Daycare Centers, Playgrounds, or Medical Facilities) that includes advisory criteria for appropriate separation from existing or proposed land uses to sensitive receptor land uses. The proposed water system improvements do not fall into any of the source categories of concern.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people??

The project would not create objectionable odors or other emissions. The project includes replacement water distribution pipeline, water treatment facilities and a storage tank that are not associated with the creation of odors.

Cumulative Impacts

There are no adverse cumulative environmental impacts to air quality resulting from implementation of the proposed project.

Mitigation Measures

AQ1

The following Feasible Control Measures, as described by the Bay Area Air Quality Management District, shall be implemented during construction to minimize fugitive dust and emissions:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day or be covered.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.

[7] http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf

- All roadways, driveways, and sidewalks to be paved shall be completed or stabilized as soon as possible. Building slabs shall be poured as soon as possible after grading unless seeding or soil binders are used to stabilize the pad.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- A publicly visible sign shall be posted with the telephone number and person to contact at the State Water Board or its designee regarding dust complaints. This person shall respond and take corrective action within 48 hours. The NCUAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

IV BIOLOGICAL RESOURCES

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project 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 (CDFW) or U.S. Fish and Wildlife Service (USFWS)?	□	■	□	□
b. Would the project 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. Would the project 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. Would the project 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. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	□	□	□	■
f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	□	□	□	■

Overview

WRA, Inc. prepared an assessment of biological resources for the project in June 2021[8]. The report provides an assessment of biological resources within the study area. The assessment included a special-status plant survey, wildlife habitat assessment, and wetland delineation. The purpose of the assessment was to develop and gather information on sensitive biological communities and special-status plant and wildlife species to support an evaluation of the project under CEQA.

[8] Palomino Estates Water System Improvement Project—Biological Technical Report. WRA, Inc. June 2021.

A biological resources assessment provides general information on the presence, or potential presence, of sensitive species and habitats. Excerpts of WRA's report are contained in this section.

Regulatory Background

The following sections explain the regulatory context of the biological assessment, including applicable laws and regulations that were applied to the field investigations and analysis of potential project impacts.

CEQA provides protections for vegetation types defined as sensitive by the California Department of Fish and Wildlife (CDFW), and aquatic communities protected by laws and regulations administered by the U.S Army Corps of Engineers (Corps), State Water Resources Control Board (State Water Board), and Regional Water Quality Control Boards (Regional Board). The laws and regulations that provide protection for these resources are summarized below.

Sensitive Natural Communities: Sensitive natural communities include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFW. CDFW ranks sensitive communities as "threatened" or "very threatened" (CDFW 2020) and keeps records of their occurrences in its California Natural Diversity Database (CNDDB; CDFW 2020). Vegetation alliances are ranked 1 through 5 in the CNDDB based on NatureServe's (2020) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or U.S. Fish and Wildlife Service (USFWS) must be considered and evaluated under CEQA (CCR Title 14, Div. 6, Chap. 3, Appendix G). In addition, this general class includes oak woodlands that are protected by local ordinances under the Oak Woodlands Protection Act.

Waters of the United States, Including Wetlands: The Corps regulates "Waters of the United States" under Section 404 of the Clean Water Act (CWA). Waters of the United States are defined in the Code of Federal Regulations (CFR) as including the territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, such as tributaries, lakes and ponds, impoundments of waters of the U.S., and wetlands that are hydrologically connected with these navigable features (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Corps Manual; Environmental Laboratory 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Unvegetated waters including lakes, rivers, and streams may also be subject to Section 404 jurisdiction and are characterized by an ordinary high water mark identified based on field indicators such as the lack of vegetation, sorting of sediments, and other indicators of flowing or standing water. The placement of fill material into Waters of the United States generally requires a permit from the Corps under Section 404 of the CWA.

The Corps also regulates construction in navigable waterways of the U.S. through Section 10 of the Rivers and Harbors Act (RHA) of 1899 (33 USC 403). Section 10 of the RHA requires Corps approval and a permit for excavation or fill, or alteration or modification of the course, location, condition, or capacity of, any port, roadstead, haven, harbor, canal, lake, harbor or refuge, or enclosure within the limits of any breakwater, or of the channel of any navigable water of the United States. Section 10 requirements apply only to navigable waters themselves, and are not applicable to tributaries, adjacent wetlands, and similar aquatic features not capable of supporting interstate commerce.

Waters of the State, Including Wetlands: The term "Waters of the State" is defined by the California Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The State Water Board and nine Regional Boards protect waters within this broad regulatory scope through many different regulatory programs. Waters of the State in the context of a CEQA Biological Resources evaluation include wetlands and other surface waters protected by the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (State Water Board 2019). The State Water Board and Regional Boards issue permits for the discharge of fill material into surface waters through the State Water Quality Certification Program, which fulfills requirements of Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a Clean Water Act permit are also required to obtain a Water Quality Certification. If a project does not require a federal permit but does involve discharge of dredge or fill material into surface waters of the State, the State Water Board and Regional Board may issue a permit in the form of Waste Discharge Requirements.

Sections 1600-1616 of California Fish and Game Code: Streams and lakes, as habitat for fish and wildlife species, are regulated by CDFW under Sections 1600-1616 of California Fish and Game Code (CFGC). Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term "stream", which includes creeks and rivers, is defined in the CCR as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life [including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). The term "stream" can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFW 1994). Riparian vegetation has been defined as "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself" (CDFW 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

Humboldt County General Plan: The Humboldt County General Plan contains policies pertaining to the following biological resources categories:

- Wetlands, streams, riparian, and aquatic areas (Policy BR-P1 BR-P5, BR-P6, BR-P7 and Standard BR-S1, BR-S4, BR-S5, BR-S7, BR-S8, BR-S9, BR-S10, BR-S11)
- Vegetation communities (Policy BR-P1, and Standard BR-S1, BR-S4)
- Plant Species (Policy BR-P1.4 and Standard BR-S1, BR-S4)
- Wildlife Species (Policy BR-P1 and Standard BR-S1, BR-S4)
- Wildlife Corridors (Policy BR-P1 and Standard BR-S1)

County of Humboldt Streamside Management Area Ordinance: Humboldt County Code Section 314-61.1 Streamside Management Area (SMA) Ordinance sets minimum standards pertaining to the use and development of land located within an SMA, wetlands and other wet areas.

SENSITIVE SPECIAL-STATUS SPECIES

Specific species of plants, fish, and wildlife species may be designated as threatened or endangered by the federal Endangered Species Act (ESA), or the California Endangered Species Act (CESA). Specific protections and permitting mechanisms for these species differ under each of these acts, and a species' designation under one law does not automatically provide protection under the other.

The ESA (16 USC 1531 et seq.) is implemented by the USFWS and the National Marine Fisheries Service (NMFS). The USFWS and NMFS maintain lists of endangered and threatened plant and animal species (referred to as "listed species"). "Proposed" or "candidate" species are those that are being considered for listing and are not protected until they are formally listed as threatened or endangered. Under the ESA, authorization must be obtained from the USFWS or NMFS prior to take of any listed species. "Take" under the ESA is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Take under the ESA includes direct injury or mortality to individuals, disruptions in normal behavioral patterns resulting from factors such as noise and visual disturbance and impacts to habitat for listed species. Actions that may result in take of an ESA-listed species may obtain a permit under ESA Section 10, or via the interagency consultation described in ESA Section 7. Federally listed plant species are only protected when take occurs on federal land.

The ESA also provides for designation of critical habitat, which are specific geographic areas containing physical or biological features "essential to the conservation of the species". Protections afforded to designated critical habitat apply only to actions that are funded, permitted, or carried out by federal agencies. Critical habitat designations do not affect activities by private landowners if there is no other federal agency involvement.

The CESA (CFGC 2050 et seq.) prohibits a take of any plant and animal species that the CFGC determines to be an endangered or threatened species in California. CESA regulations include take protection for threatened and endangered plants on private lands, as well as extending this protection to candidate species which are proposed for listing as threatened or endangered under CESA. The definition of a "take" under CESA ("hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") only applies to direct impact to individuals, and does not extend to habitat impacts or harassment. CDFW may issue an Incidental Take Permit under CESA to authorize take if it is incidental to otherwise lawful activity and if specific criteria are met. Take of these species is also authorized if the geographic area is covered by a Natural Community Conservation Plan (NCCP), if the NCCP covers that activity.

Fully Protected Species and Designated Rare Plant Species. This category includes specific plant and wildlife species that are designated in the CFGC as protected even if not listed under CESA or ESA. Fully Protected Species includes specific lists of birds, mammals, reptiles, amphibians, and fish designated in CFGC. Fully protected species may not be taken or possessed at any time. No licenses or permits may be issued for take of fully protected species, except for necessary scientific research and conservation purposes. The definition of "take" is the same under the CFGC and the CESA. By law, CDFW may not issue an Incidental Take Permit for Fully Protected Species. Under the California Native Plant Protection Act (NPPA), CDFW has listed 64 "rare" or "endangered" plant species, and prevents "take", with few exceptions, of these species. CDFW may authorize take of species protected by the NPPA through the Incidental Take Permit process, or under a NCCP.

Special Protections for Nesting Birds and Bats. The federal Bald and Golden Eagle Protection Act provides relatively broad protections to both of North America's eagle species (bald eagle [*Haliaeetus leucocephalus*] and golden eagle [*Aquila chrysaetos*]) that in some regards are like those provided by the ESA. In addition to regulations for special-status species, most native birds in California, including non-status species, have baseline legal protections under the federal Migratory Bird Treaty Act of 1918 and CFGC, i.e., sections 3503, 3503.5 and 3513. Under these laws/codes, the intentional harm or collection of adult birds as well as the intentional collection or destruction of active nests, eggs, and young is illegal. For bat species, the Western Bat Working Group (WBWG) designates conservation status for species of bats, and those with a high or medium-high priority are typically given special consideration under CEQA.

Essential Fish Habitat. The Magnuson-Stevens Fishery Conservation and Management Act provides for conservation and management of fishery resources in the U.S., administered by NMFS. This Act establishes a national program intended to prevent overfishing, rebuild overfished stocks, ensure conservation, and facilitate long-term protection through the establishment of Essential Fish Habitat (EFH). EFH consists of aquatic areas that contain habitat essential to the long-term survival and health of fisheries, which may include the water column, certain bottom types, vegetation (e.g. eelgrass (*Zostera* spp.)), or complex structures such as oyster beds. Any federal agency that authorizes, funds, or undertakes action that may adversely affect EFH is required to consult with NMFS.

Species of Special Concern, Movement Corridors, and Other Special-status Species under CEQA. To address additional species protections afforded under CEQA, CDFW has developed a list of special species as "a general term that refers to all of the taxa the CNDDB is interested in tracking, regardless of their legal or protection status." This list includes lists developed by other organizations, including for example, the Audubon Watch List Species, the Bureau of Land Management Sensitive Species, and USFWS Birds of Special Concern. Plant species on the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (Inventory) with California Rare Plant Ranks (Rank) of 1 and 2, as well as some with a Rank of 3, are also considered special-status plant species and must be considered under CEQA. Some Rank 3 species and all Rank 4 species are typically only afforded protection under CEQA when such species are particularly unique to the locale (e.g., range limit, low abundance/low frequency, limited habitat) or are otherwise considered locally rare. Additionally, any species listed as sensitive within local plans, policies and ordinances are likewise considered sensitive. Movement and migratory corridors for native wildlife (including aquatic corridors) as well as wildlife nursery sites are given special consideration under CEQA.

Methods

On May 6, and June 12, 2021, WRA biologists visited the study area to map vegetation, aquatic communities, and unvegetated land cover types, document plant and wildlife species present, and evaluate on-site habitat for the potential to support special-status species as defined by CEQA. Prior to the site visit, WRA biologists reviewed literature resources and performed database searches to assess the potential for sensitive biological communities (e.g., wetlands) and special-status species (e.g., endangered plants), including:

- Soil Survey of Humboldt County, South Part, California (USDA 2010)
- Garberville 7.5-minute U.S. Geological Survey (USGS) quadrangle (USGS 2018)
- Contemporary aerial photographs (Google Earth 2020)
- Historical aerial photographs (NETR 2020)
- National Wetlands Inventory (USFWS 2021a)
- California Aquatic Resources Inventory (SFEI 2017)
- CNDDB/BIOS (CDFW 2021)
- CNPS Rare Plant Inventory (CNPS 2021a)
- Consortium of California Herbaria (CCH1 2021, CCH2 2021)
- USFWS List of Federal Endangered and Threatened Species (USFWS 2021b)
- eBird Online Database (eBird 2021)
- CDFW Publication, *California Bird Species of Special Concern in California* (Shuford and Gardali 2008)
- CDFW and University of California Press publication *California Amphibian and Reptile Species of Special Concern* (Thomson et al. 2016)
- *A Field Guide to Western Reptiles and Amphibians* (Stebbins 2003)

- *A Manual of California Vegetation*, Online Edition (CNPS 2021b)
- California Natural Community List (CDFW 2020)
- Database searches (i.e., CNDDB, CNPS) for special-status species focused on the Ettersburg, Miranda, Fort Seward, Briceland, Garberville, Harris, Bear Harbor, Piercy, and Noble Butte USGS 7.5-minute quadrangles.

Following the remote assessment, one WRA biologist completed a field review over the course of six hours to document: (1) land cover types (e.g., terrestrial communities, aquatic resources), (2) existing conditions and to determine if such provide suitable habitat for any special-status plant or wildlife species, (3) if and what type of aquatic natural communities (e.g., wetlands) are present, and (4) if special-status species are present.

BIOLOGICAL COMMUNITIES

During the site visit, WRA evaluated the species composition and area occupied by distinct vegetation communities, aquatic communities, and other land cover types. Mapping of these classifications utilized a combination of aerial imagery and ground surveys. In most instances, communities are characterized and mapped based on distinct shifts in plant assemblage (vegetation) and follow the *California Natural Community List* (CDFW 2020) and *A Manual of California Vegetation*, Online Edition (CNPS 2021b). These resources cannot anticipate every component of every potential vegetation assemblage in California, and so in some cases, it is necessary to identify other appropriate vegetative classifications based on best professional judgment of WRA biologists. When undescribed variants are used, it is noted in the description. Vegetation alliances (natural communities) with a CDFW Rank of 1 through 3 (globally critically imperiled [S1/G1], imperiled [S2/G2], or vulnerable [S3/G3]), were evaluated as sensitive as part of this evaluation (CDFW 2020).

The site was reviewed for the presence of wetlands and other aquatic resources according to the methods described in the Corps Manual (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains and Valleys Region* (Western Mountains and Valleys Supplement; Corps 2010), *A Guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Regions of the United States* (Mersel and Lichvar 2014). Areas meeting these indicators were mapped as aquatic resources and categorized using the vegetation community classification methods described above. Aquatic communities which are mapped in the NMFS EFH Mapper (NMFS 2021) or otherwise meet criteria for designation as EFH are indicated as such in the community description below. The presence of riparian habitat was evaluated based on woody plant species meeting the definition of riparian provided in *A Field Guide to Lake and Streambed Alteration Agreements, Section 1600-1607, California Fish and Game Code* (CDFW 1994) and based on best professional judgment of biologists completing the field surveys.

SPECIAL-STATUS SPECIES

Potential occurrence of special-status species in the study area was evaluated by first determining which special-status species occur in the vicinity of the study area through a literature and database review as described above. Presence of suitable habitat for special-status species was evaluated during the site visit(s) based on physical and biological conditions of the site as well as the professional expertise of the investigating biologists. The potential for each special-status species to occur in the study area was then determined according to the following criteria:

- No Potential: Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- Unlikely: Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- Moderate Potential: Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- High Potential: All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- Present: Species is observed on the site or has been recorded (i.e., CNDDB, other reports) on the site in the recent past.

If a more thorough assessment was deemed necessary, a targeted or protocol-level assessment or survey was conducted or recommended as a future study. If a special-status species was observed during the site visit, its presence was recorded and discussed below. If designated critical habitat is present for a species, the extent of critical habitat present and an evaluation of critical habitat elements is provided as part of the species discussions below.

Special-Status Plants

To determine the presence or absence of special-status plant species, surveys were conducted within the study area on May 6, and June 12, 2021. The surveys correspond to the period sufficient to observe and identify those special-status plants determined to have the potential to occur. The field surveys were conducted by botanists familiar with the flora of Humboldt and surrounding counties. The surveys were performed in accordance with those outlined by experts and agencies (CNPS 2001, CDFW 2018b, USFWS 1996). Plants were identified using *The Jepson Manual, 2nd Edition* (Baldwin et. al. 2012) and *Jepson Flora Project* (eFlora 2021), to the taxonomic level necessary to determine whether they were sensitive. Plant names follow those of *Jepson Flora Project* (eFlora 2021), unless otherwise noted.

Special-Status Wildlife

A general wildlife assessment was performed on May 6, 2021. This assessment consisted of traversing the entirety of the study area. Habitat elements required or associated with certain species (e.g., northern spotted owl) or species groups (e.g., bats, anadromous fish) were searched for and noted. Such habitat elements include, but are not limited to: plant assemblages and vegetation structure; stream depth, width, hydro-period, slope, and bed-and-bank structure; rock outcrops, caves, cliffs, overhangs, and substrate texture and rock content; history of site alteration and contemporary disturbances; etc.

Wildlife Corridors and Native Wildlife Nursery Sites

To account for potential impacts to wildlife movement/migratory corridors, biologists reviewed maps from the California Essential Connectivity Project (Caltrans 2010), and habitat connectivity data available through the CDFW Biogeographic Information and Observation System (BIOS; CDFW 2021). Additionally, aerial imagery (Google 2021) for the local area was referenced to assess if local core habitat areas were present

within, or connected to the study area. This assessment was refined based on observations of on-site physical and/or biological conditions, including topographic and vegetative factors that can facilitate wildlife movement, as well as on-site and off-site barriers to connectivity.

The potential presence of native wildlife nursery sites is evaluated as part of the site visit and discussion of individual wildlife species below. Examples of native wildlife nursery sites include nesting sites for native bird species (particularly colonial nesting sites), marine mammal pupping sites, and colonial roosting sites for other species (such as for monarch butterfly [*Danaus plexippus*]).

Analysis

a. Would the project 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 (CDFW) or U.S. Fish and Wildlife Service (USFWS)?

Results of WRA's biological assessment specific to special-status species are contained below.

Special-Status Plants

Based upon a review of the resource databases listed previously, 34 special-status plant species have been documented in the vicinity of the study area. Six of these species have the potential to occur in the study area. The remaining species documented from the greater vicinity are unlikely or have no potential to occur for one or more of the following:

- Hydrologic conditions (e.g., perennial wetlands, riverine) necessary to support the special-status plant species are not present in the study area;
- Edaphic (soil) conditions (e.g., rock outcrops, serpentine) necessary to support the special-status plant species are not present in the study area;
- Topographic conditions (e.g., north-facing slope, montane) necessary to support the special-status plant species are not present in the study area;
- Unique pH conditions (e.g., acidic bogs) necessary to support the special-status plant species are not present in the study area;
- Associated natural communities (e.g., interior chaparral, grassland) necessary to support the special-status plant species are not present in the study area;
- The study area is geographically isolated (e.g. below elevation, coastal environ) from the documented range of the special-status plant species;
- Land use history and contemporary management (e.g., grading, development) has degraded the localized habitat necessary to support the special-status plant species.

A WRA biologist conducted the special-status plant survey during a period sufficient to identify each of the special-status plant species with the potential to occur. No special-status species were observed. Species with potential habitat in the study area are described below.

Redwood lily (*Lilium rubescens*). Rank 4.2. High Potential. Redwood lily is a bulbiferous perennial forb in the lily family (*Liliaceae*) that blooms from April to September. It typically occurs in broadleaf upland

forest, chaparral, lower montane coniferous forest, upper montane coniferous forest, and North Coast coniferous forest habitat at elevations ranging from 95 to 6,210 feet (CNPS 2021a).

Heart-leaf twayblade (*Listera cordata*). Rank 4.2. Moderate Potential. Heart-leaf twayblade is a perennial forb in the orchid family (*Orchidaceae*) that blooms from February to July. It typically occurs on the edge of perennial wetland areas in bog and fen, lower montane coniferous forest, and North Coast coniferous forest habitat at elevations ranging 15 to 4,455 feet (CNPS 2021a).

Howell's Montia (*Montia howellii*). Rank 2B.2. Moderate Potential. Howell's Montia is an annual forb in the miners lettuce (*Montiaceae*) family that blooms from March through May. It typically occurs at vernally mesic areas and sometimes roadsides in meadows and seeps, North Coast coniferous forest, and vernal pools at elevations ranging from 0 to 2,740 feet (CNPS 2021a). Known associated species include douglas fir, coast redwood (*Sequoia sempervirens*), selfheal (*Prunella vulgaris*), pennyroyal mint (*Mentha pulegium*), water montia (*Montia fontana*), western buttercup (*Ranunculus occidentalis*), thimbleberry *(Rubus parviflorus*), sweet vernal grass (*Anthoxanthum odoratum*), English daisy (*Bellis perennis*), and common bog rush (*Juncus effusus*) (CDFW 2021a).

White-flowered rein orchid (*Piperia candida*) Rank 1B.2. High Potential. White-flowered rein orchid is a perennial forb in the orchid family (*Orchidaceae*) that blooms from May to September. It typically occurs on forest duff, mossy banks, rock outcrops, and muskegs in North Coast coniferous forest, lower montane coniferous forest, and broadleaf upland forest habitat at elevations ranging from 95 to 4,300 feet (CDFW 2021a, CNPS 2021a). Soil survey data at known locations suggest that this species is typically located on slightly acid (pH 6.5) very gravelly loams derived from sedimentary rock (CDFW 2021a, CSRL 2021). Known associated species include Douglas fir (*Pseudotsuga menziesii*), tanoak (*Lithocarpus densiflorus*), coyote brush (*Baccharis pilularis*), sticky monkey (*Mimulus aurantiacus*), poison oak (*Toxicodendron diversilobum*), ocean spray (*Holodiscus discolor*), coast wild cucumber (*Marah fabaceus*), Torrey's onion grass (*Melica torreyana*), Italian rye grass (*Festuca perennis*), and goldback fern (*Pentagramma triangularis*) (CDFW 2021a).

Long-beard lichen (*Usnea longissima*) Rank 4.2. High Potential. Long-beard lichen is filamentous lichen in the *Parmeliaceae*. It typically occurs in the redwood zone growing in North Coast coniferous forest and broadleaf upland forest at elevations ranging from 0 to 2,000 feet (CDFW 2021a). Known associated species include big-leaf maple (*Acer macrophyllum*), oaks (*Quercus* spp.), Oregon ash (*Fraxinus latifolia*), Douglas fir (*Pseudotsuga menziesii*), coast redwood (*Sequoia sempervirens*), and California bay (*Umbellularia californica*) (CDFW 2021a).

Oval-leaf Viburnum (*Viburnum ellipticum*). Rank 2B.3. Moderate Potential. Oval-leaf viburnum is a shrub in the honeysuckle family (*Caprifoliaceae*) that blooms from May to June, with identifiable vegetative characteristics remaining intact into fall. It typically occurs in chaparral, cismontane woodland, and lower montane coniferous forest habitat at elevations ranging from 695 to 4,550 feet (CDFW 2021a, CNPS 2021a). Known associated species include Pacific madrone (*Arbutus menziesii*), blue oak (*Quercus douglasii*), Oregon white oak (*Q. garryana*), California black oak (*Q. kelloggii*), interior live oak (*Q. wislizenii*), California bay (*Umbellularia californica*), sticky manzanita (*Arctostaphylos viscida*), poison oak (*Toxicodendron diversilobum*), choke cherry (*Prunus virginiana*), mock orange (*Philadelphus lewisii*), and thimbleberry (*Rubus parviflorus*) (CDFW 2021a).

Potential Impacts to Plants

A WRA biologist conducted the special-status plant survey during a period sufficient to identify each of the special-status plant species with the potential to occur. No special-status species were observed within the project extents. As designed, the project will not impact special-status plant species.

Special Status Wildlife

Of the 26 special-status wildlife species documented in the vicinity of the study area, most are excluded from the study area based on a lack of habitat features. Features not found within the study area that are required to support special-status wildlife species include:

- Vernal pools
- Perennial riverine habitat (e.g., streams, rivers)
- Tidal marsh areas
- Old growth redwood or fir forest
- Serpentine soils to support host plants
- Sandy beaches
- Presence of specific host plants
- Caves, mine shafts, or abandoned buildings
- Structurally complex trees
- Dense riparian habitat

The absence of such habitat features eliminates components critical to the survival or movement of most special-status species found in the vicinity.

Eight special-status species have potential to occur in the study area. The species determined to have potential are listed below. No special-status wildlife species were observed during the site assessment.

Formally Listed Species

Bald eagle (*Haliaeetus leucocephalus*), Federal Eagle Protection Act, State Endangered, CDFW Fully Protected Species, USFWS Bird of Conservation Concern. Moderate Potential. The bald eagle occurs primarily as a winter visitor but also as a year-round (breeding) resident throughout most of California. Habitat is somewhat variable, but the species is usually strongly associated with larger bodies of water including lakes, reservoirs, major river systems, estuaries, and the ocean. Breeding occurs primarily in forested areas near water bodies; wintering habitat is more general, though water is usually present. The huge nests are typically built in in the upper portions of large, live trees that provide dominant views of surrounding areas (Buehler 2000). Bald eagles are highly opportunistic foragers; fishes and waterfowl are usually favored, but a variety of live prey and carrion are consumed.

Other Special-Status Wildlife

Pallid bat (*Antrozous pallidus*). CDFW Species of Special Concern, WBWG High Priority. Moderate Potential. The pallid bat is broadly distributed throughout much of western North America and typically occurs in association with open, rocky areas. Occupied habitats are highly variable and range from

deserts to forests in lowland areas and include higher-elevation forests. Roosting may occur singly or in groups of up to hundreds of individuals. Roosts must offer protection from high temperatures and are typically in rock crevices, mines, caves, or tree hollows; manmade structures are also used, including buildings (both vacant and occupied) and bridges. Pallid bats are primarily insectivorous, feeding on large prey that is usually taken on the ground but sometimes in flight (WBWG 2018).

Long-eared myotis (*Myotis evotis*). WBWG Medium Priority. Moderate Potential. The long-eared myotis (bat) is primarily associated with coniferous forest (from sea level to approximately 9,000 feet elevation), but also occurs in semiarid shrublands, sage scrub, chaparral, and agricultural areas. This species roosts under loose tree bark, in tree hollows, caves, mines, crevices in rocky outcrops, in buildings, under bridges and occasionally on the ground. Long-eared myotis primarily consume beetles and moths, gleaning prey from foliage, trees, rocks, and from the ground (WBWG 2018).

Fringed myotis (*Myotis thysanodes*), WBWG High Priority. Moderate Potential. The fringed myotis ranges throughout much of western North America from southern British south to southern Mexico. This species is most common in drier woodlands (e.g., oaks, pinyons-junipers); a variety of other habitats are used including desert scrubland, grassland, and coniferous and mixed (coniferous-deciduous) forests. Maternity roosting occurs in colonies of 10 to 2,000 individuals, although large colonies are rare (WBWG 2018). Caves, buildings, mines, rock crevices in cliff faces, and bridges are used for maternity and night roosts; tree cavities/hollows are also commonly used (WBWG 2018).

Great blue heron (*Ardea herodias*). No status; nesting sites (rookeries) monitored by CDFW. Moderate Potential. The great blue heron is present year-round in California and common in many areas. It feeds mostly in slow moving or calm freshwater and along seacoasts. Nesting occurs colonially or semi-colonially, most typically in trees and often with other heron species; nesting my also occur on man-made structures, in shrubbery, or on the ground in predator-free areas (Vennesland and Butler 2011). Nests sites are usually located near water bodies where abundant forage is present. Herons prey primarily on fishes and aquatic invertebrates but utilize a variety of prey resources including smaller terrestrial vertebrates.

Olive-sided Flycatcher (*Contopus cooperi*), CDFW Species of Special Concern, USFWS Bird of Conservation Concern. Moderate Potential. The olive-sided flycatcher is a summer resident in California, wintering in Latin America. It breeds in a variety of forested habitats, typically coniferous forests at higher elevations, but also in mixed forest and woodlands at lower elevations. Breeding habitat is often associated with forest openings and edges, both natural (e.g., meadows, canyons) and man-made (e.g., logged areas) (Altman and Sallabanks 2012). Nests are usually in conifers and placed at variable height on the outer portions of branches. This species forages for insects, usually from prominent tree snags.

Allen's hummingbird (*Selasphorus sasin*). USFWS Bird of Conservation Concern. Moderate Potential. Allen's hummingbird is a summer resident along the majority of California's coast and a year-round resident in portions of coastal southern California and the Channel Islands. Breeding occurs in association with the coastal fog belt, and typical habitats used include coastal scrub, riparian, woodland and forest edges, and eucalyptus and cypress groves (Mitchell 2000). It feeds on nectar, as well as insects and spiders.

Red-bellied newt (*Taricha rivularis*). CDFW Species of Special Concern. Moderate Potential. The red-bellied newt is endemic to the California Coast Ranges from southern Sonoma County through central

Humboldt County. Cool coastal forests (typically coniferous) provide typical habitat, though this species also occupies hardwood forests. Similar to other newts, adults are primarily terrestrial but shift annually between terrestrial and aquatic (breeding) phases. Breeding occurs during the spring in mountain streams, usually with moderate to high flow and rocky substrates; ponds are only rarely used (Thomson et al. 2016). Although this species often shows fidelity to certain stream reaches, adults can move a mile or more from year to year (Thomson et al. 2016).

Potential Impacts to Animals

Construction-related noise levels from the proposed project's construction activities could result in direct harassment or nest abandonment to state endangered bald eagle, if project work is initiated after an eagle has begun to roost. Similarly, construction-related noise or vegetation removal could result in impacts to nesting native and migratory bird species. To avoid potential impacts to bald eagle and nesting birds, mitigation measure BIO1 shall be implemented.

The East Branch South Fork Eel River provides suitable breeding habitat for red-bellied newt and newts may migrate from the study area to the river during the breeding season. Breeding migration begins in late January to suitable breeding habitat and migration to upland refugia in the spring from March through May. Also, the study area may provide suitable upland refugia habitat used outside of the breeding season. Ground disturbance activities of the proposed project's construction activities could result in direct mortality of red-bellied newt, a Species of Special Concern. To avoid impacts to red-bellied newts, mitigation measure BIO2 shall be implemented.

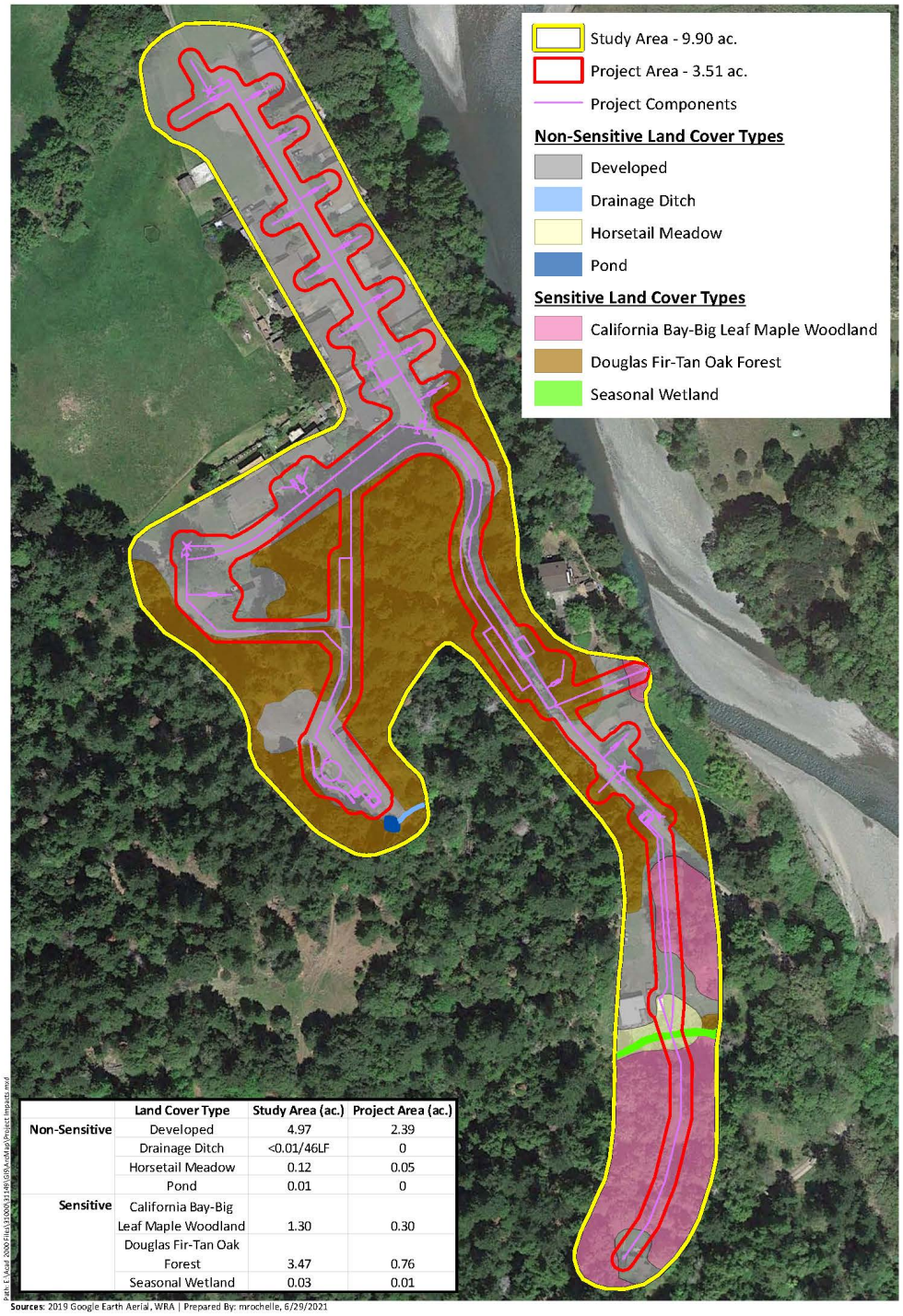
No evidence of bat maternity roosting or roosting was observed in structures within the project area. However, trees within the study area may support bat maternity roosts. Construction-related noises and vegetation removal may impact bat maternity roosts within the project area and surrounding locations. To reduce the potential to impact special status bat species, mitigation measure BIO3 shall be implemented.

b. Would the project 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?

WRA observed seven land cover types within the study area: developed, Douglas fir-Tan oak forest, California bay woodland, horsetail meadow, seasonal wetland, artificial pond and drainage ditch. Land cover types within the study area are illustrated in Figure IV-1. The non-sensitive land cover types in the study area include developed, horsetail meadow, and artificial pond, while the sensitive communities include the Douglas fir forest, California bay woodland, and seasonal wetland. These are described below.

Developed (No CDFW Rank). This land cover type is inclusive of roads, residential parcels and other areas where natural vegetation has been significantly altered having little native species or is maintained. Within the study area, this land cover type is within existing residential parcels, access road and driveways and existing location of water treatment and storage facilities.

Figure IV-1: Sensitive Biological Communities



	Land Cover Type	Study Area (ac.)	Project Area (ac.)
Non-Sensitive	Developed	4.97	2.39
	Drainage Ditch	<0.01/46LF	0
	Horsetail Meadow	0.12	0.05
	Pond	0.01	0
Sensitive	California Bay-Big Leaf Maple Woodland	1.30	0.30
	Douglas Fir-Tan Oak Forest	3.47	0.76
	Seasonal Wetland	0.03	0.01

Sources: 2019 Google Earth Aerial, WRA | Prepared By: mrochelle, 6/29/2021

Figure IV-1: Sensitive Habitats

Palomino Estates Treatment Site
Humbolt County, California

0 100 200 Feet

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Douglas Fir-Tan Oak/Modesty (*Pseudotsuga menziesii-Notholithocarpus densiflorus/Whipplea modesta*) **Woodland Association** (CDFW Rank G3 S3). The Douglas fir-Tan Oak alliance typically occurs on raised stream benches, terraces, slopes and ridges of all aspects on deep soil which is well drained and mostly derived from sandstones and schists (CNPS 2021b). Within the study area, this land cover type is located on hillside slopes. Characteristic species of this land cover type observed in the study area include Douglas fir, tan oak, canyon live oak (*Quercus chrysolepis*), pink honeysuckle (*Lonicera hispidula*), poison oak (*Toxicodendron diversilobum*), cleavers (*Galium aparine*), modesty (*Whipplea modesta*), California bedstraw (*Galium californicum*), Inside-out flower (*Vancouveria* sp.), and sweet cicely (*Osmorhiza berteroi*).

California bay-Big leaf maple (*Umbellularia californica-Acer macrophyllum*) **Woodland Association** (CDFW Rank G4 S3). The California bay alliance typically occurs on alluvial benches, stream sides, valley bottoms, coastal bluffs, inland ridges, steep north-facing slopes and rocky outcrops on shallow to deep sandy to clay loam soils (CNPS 2021b). Within the study area, this land cover type is located along the terrace between the hillslope and riverbank. Characteristic species of this land cover type observed in the study area include California bay, Oregon ash (*Fraxinus latifolia*), Douglas fir, Oregon oak (*Quercus garryana*), poison oak, California blackberry (*Rubus ursinus*), bracken fern (*Pteridium aquilinum*), miners lettuce (*Claytonia perfoliata*), and sweet vernal grass (*Anthoxanthum odoratum*). The portion located at the existing well is considered riparian vegetation.

Horsetail (*Equisetum* spp.) **Meadow Provisional Alliance** (CDFW Rank GNR S3 S4). This land cover type is typically located in riparian areas, on alluvial soils which may be seasonally or intermittently flooded (CNPS 2021b). Within the study area, this land cover type is in areas where relatively recent soil disturbance has occurred. A small patch is located near the existing water storage tank but was not mapped due to small size. Another small patch is located on a roadside. The mapped meadow is in and around an area of a small landslide in a residential parcel. Giant horsetail (*Equisetum telmateia*) has continuous distribution within the patch with approximately 30 percent absolute cover. No other indicators of wetlands were observed. Additional species observed include pennyroyal mint (*Mentha pulegium*), field hedge parsley (*Torilis arvensis*), hedge nettle (*Stachys* sp.) large mouse ears (*Cerastium glomeratum*), and blue grass (*Poa* sp.).

Seasonal Wetland Swale. Seasonal wetlands include areas which hold water for part of the year, typically during the rainy season (between October and March), and which are dominated by hydrophytic vegetative cover. Dominant plant species of the seasonal wetland includes tall cyperus (*Cyperus eragrostis*) and reed fescue (*Festuca arundinacea*); co-dominants plants include starry false-lily-of-the-valley (*Maianthemum stellatum*), pennyroyal, poison oak, Hardings grass (*Phalaris aquatica*), giant horsetail, and curly dock (*Rumex crispus*). The wetland is a linear channel dug through landslide material which then becomes a swale beyond the deposited material. No indication of flow (i.e., scour, wrack) or wetland was observed downslope of the wetland. The linear portion is within horsetail meadow as described above.

Artificial Pond and Drainage Ditch. A 435-square foot (0.01 acre) pond is located adjacent to the existing water treatment facility and is fed by the overflow from the filtration tank. The pond is approximately 4-feet deep in the deepest portion and was dug in uplands to act as an overflow basin for water treatment. The pond bottom consists of silt and other fine sediment. The banks have a discontinuous narrow band of vegetation including giant horsetail, common rush (*Juncus patens*), tall cyperus, and poison oak. The canopy is of Douglas fir-Tan Oak forest. Two rough skinned newts (*Taricha granulosa*) were observed in the pond. There is a 3-foot-wide drainage ditch (overflow channel) excavated to drain the pond, outflowing down slope. No wetlands are present below the outflow channel.

Potential Impacts to Sensitive Biological Communities

No significant riparian habitat will be directly impacted by the project. The majority of the project is separated from the riparian corridor by homes and yards (the project occurs west of the existing residential units between the river and the roadway) or within existing roadways. Only the well location is not separated by existing development but it is maintained so does not support significant riparian vegetation. Sensitive natural communities within the project area include Douglas fir-tan oak forest and California bay-big leaf maple woodland. The Project avoids sensitive natural communities by utilizing existing roads and development footprints to the extent practical. However, temporary ground disturbance within Sensitive Natural Communities is expected to occur. Potential impacts will be temporary and disturbed areas will be returned to pre-project conditions. Impacts to sensitive natural communities will be less than significant.

c. Would the project 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?

Aquatic resources within the project area includes seasonal wetland. Approximately 0.01 acre of seasonal wetland is located within the project area (Figure IV-1). The project will avoid the feature through use of directional boring. The edge of wetland shall be flagged by a qualified biologist prior to land disturbance activities in the vicinity of the wetland. Boring shall begin 50-feet from the edge of the wetland and exit 50-feet beyond the edge of the wetland. Boring shall occur at a depth of approximately 10-feet below the surface to ensure that the feature is adequately avoided. No direct or indirect impacts to the seasonal wetland are anticipated from the project.

The artificial pond and drainage ditch associated with water treatment are considered artificial as they are a result of human activity (State Water Board 2021). The pond and drainage ditch are considered non-jurisdictional features as they do not meet the criteria 3a through 3d of the State Wetland Definition (State Water Board 2021) or the four categories defined in the 2020 Navigable Waters Protection Rule (Corps 2020) and is not located on a stream. Additionally, the pond was built as part of the permitted project of the existing treatment facility.

d. Would the project 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?

The study area is not within a designated wildlife corridor (Caltrans 2010, CDFW BIOS 2021). The study area is located within a tract of rural residential and lightly-developed land within a rural portion of Humboldt County. The study area may be utilized by aquatic-breeding amphibians as a corridor during breeding season due to proximity to a perennial stream. Common wildlife species presumably utilize the study area to some degree for movement at a local scale, but it likely does not provide corridor functions beyond connecting similar rural residential land parcels in surrounding areas.

The study area contains vegetation which provides suitable nesting habitat for resident and migratory birds and potential roosting habitat for bats. Mitigation measures BIO1 and BIO3 provide measures to avoid impacts to native wildlife nursery sites. The project area may provide migratory corridor functions for aquatic breeding amphibians. Mitigation measure BIO2 provides measures to avoid impacts to aquatic breeding amphibians.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Local plans and policies related to biological resources include Humboldt County Code Section 314-61.1 Streamside Management Areas (SMA) and Wetland Ordinance. Portions of the project will occur within the SMA of East Branch South Fork Eel River. Because the proposed project purpose is to maintain, support, keep, and continue in an existing state or condition of public/private facilities (Humboldt County Code Section 61.1.4.1) to a permitted water infrastructure project (Humboldt County Code Section 61.1.4.3), it is exempt from requirements to comply with the ordinance; as such, the project does not conflict with the SMA ordinance[9].

While there is no impact under CEQA for the work to be conducted in the SMA, the project will apply Erosion Control Measures (Humboldt County Code Section 61.1.10.15) and other mitigation measures (Humboldt County Code Section 61.1.10), where applicable.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project location is not part of an adopted Habitat Conservation Plan or Natural Community Conservation Plan.

Cumulative Impacts

There are no adverse cumulative environmental impacts to biological resources resulting from implementation of the proposed project.

Mitigation Measures

BIO1: To avoid potential impacts to bald eagle and nesting birds, the following measures shall be implemented:

Vegetation removal, building demolition or initial ground disturbance shall occur outside bird nesting season. If initiation of project construction activities or vegetation removal are scheduled to occur within the nesting season (February 1 through August 31), a pre-construction survey shall be conducted within 7 days prior to such activities. If an active nest is observed, the nest location shall be mapped and a no-disturbance buffer sufficient to avoid nest destruction or abandonment shall be observed until the nest is no longer active.

BIO2: To avoid potential impacts to red-bellied newts, the following measures shall be implemented:

Project-related activities shall be conducted outside of the migratory breeding season, which occurs from late January through May. If project-related activities are scheduled to occur during migratory breeding season,

[9] The County of Humboldt was asked to concur with this determination in early July 2021. No response has been received as of March 2022.

pre-construction surveys shall be conducted within the study area during the breeding migration season in February. Surveys shall be conducted when climatic and environmental conditions are suitable for movement to breeding habitat. If red-bellied newts are detected during pre-construction surveys, CDFW shall be notified to request permission to move individuals if needed for future surveys. If newts are detected, and construction activities are scheduled to begin during the breeding migratory season, an exclusion fence shall be installed between work areas and suitable aquatic habitat prior to ground disturbance activities to prevent newts from entering the work area.

If construction occurs outside of the migration period, a qualified biologist shall survey suitable upland habitat within the project area no more than two days prior to commencement of ground disturbance activities. CDFW shall be contacted prior to the survey to request permission to move any red-bellied newts observed. If newts are detected, the qualified biologist shall move the newt to suitable habitat outside of the project area, per CDFW recommendations. If newts are not observed, no further surveys or monitoring is necessary.

BIO3: To avoid potential impacts to special status bat species, the following mitigation measures shall be implemented:

A qualified biologist shall conduct a tree survey within the study area to assess suitability for bat maternity roosts. Surveys should be conducted by a qualified biologist who has experience with bats and is familiar with the ecology of bat species of Humboldt/Mendocino County.

If suitable roosting trees are determined to be present, tree removal and/or construction work within 100-feet of habitat trees should occur outside of the maternity season (October 15 through February 28). Tree removal with identified roosting habitat shall be conducted following the process outlined below:

1. The tree shall be limbed, leaving branches with suitable roost habitat (i.e., cavities, crevices, exfoliating bark, dense foliage cover, or large leaves), as identified and supervised by a qualified bat biologist. The limbing shall be done with a chainsaw only (i.e., no large equipment).
2. The following day, the tree shall be felled.
3. Any non-habitat trees and vegetation within 25-feet of habitat tree may be removed at any time, avoiding habitat tree, where/when appropriate.

If a tree has suitable roosting habitat and seasonal (October 15 through February 28) removal of habitat trees is not feasible, direct mortality or pup abandonment may occur. Presence of roosting bats should be presumed, as determining presence of bats in trees is challenging due to tree heights. Each tree determined to have suitable roosting habitat shall be clearly marked and mapped with a GPS unit. Locations shall be provided on project plans where appropriate, and 100-foot no disturbance buffers shall be applied until September 1.

V CULTURAL RESOURCES

Section 15064.5(a) of CEQA includes a broad definition of historical and archaeological resources as follows:

(1) A resource listed in or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4850 et seq.).
(2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
(3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4852) including the following:
    (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
    (B) Is associated with the lives of persons important in our past;
    (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,
    (D) Has yielded, or may be likely to yield, information important in prehistory or history.
(4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	□	■	□	□
b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	□	■	□	□
c. Would the project disturb any human remains, including those interred outside of dedicated cemeteries?	□	■	□	□

Environmental Setting

Tom Origer & Associates prepared a Cultural Resources Assessment for the project area in 2021. The study includes a records search of files at the Northwest Information Center (NWIC), a Sacred Lands File (SLF) search at the Native American Heritage Commission (NAHC), Native American outreach, examination of the library and files of Tom Origer & Associates, and a field inspection. An archaeological literature and records search was conducted at the NWIC, of the California Historical Resources Information System (CHRIS) housed at Sonoma State University, on May 4, 2021, with a half-mile buffer around the project footprint. The results of this search indicated that no cultural resource studies were completed within the project site and five studies had been completed within a half-mile radius of the project site. No cultural resources are recorded within the project site or within a half-mile of the project. The CHRIS search also included searching the lists of resources on or determined eligible for the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), California State Historical Landmarks, California Sate Points of Historical Interest. No historical, unique archaeological, or tribal cultural resources were found in or near the Project site.

Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

No historical resources were found at the project site. Results of the cultural study that included a records search, tribal outreach and a Sacred Lands File Search, and the pedestrian survey of the project area failed to identify historical resources. No impacts to historical resources are anticipated. However, there is always the possibility of accidental discovery of historical resources during construction. In the event resources are discovered during construction, mitigation measure CR1 would reduce such impacts to less than significant.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

No archaeological resources were found at the project site. Results of the cultural study that included a records search, tribal outreach and a Sacred Lands File Search, and the pedestrian survey of the project area failed to identify unique archaeological resources. No impacts to archaeological resources are anticipated. However, there is always the possibility of accidental discovery of archaeological resources during construction. In the event resources are discovered during construction, mitigation measure CR1 would reduce such impacts to less than significant.

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

There are no known human remains in the project area. However, the remote possibility exists that human remains could be discovered during construction. In such an event, Mitigation Measure CR2 would reduce such impact to a less than significant level.

Cumulative Impacts

There are no adverse cumulative environmental impacts to cultural resources resulting from implementation of the proposed project.

Mitigation Measures

CR1: If new archaeological resources or human remains are discovered during project construction, all ground-disturbing activities in the vicinity of the find shall cease, the area will be protected from disturbance, and an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards (National Park Service 1983) shall be retained to evaluate the find. If the find is human remains, the county coroner will be contacted immediately, and California Health and Safety Code Section 7050.5 shall be followed. The State Water Board will also be contacted immediately if human remains, or archaeological resources are discovered, and the procedures outlined in CEQA §15064.5 (d) and (e) shall be implemented by the State Water Board. Work may continue on other parts of the project while evaluation and, if necessary, mitigation takes place (CEQA Guidelines Section15064.5 [f]). If the archaeological resource is Native American in origin, the Bear River Band of the Rohnert Rancheria (Tribe) will also be notified and shall be provided information and invited to perform a site visit when the archaeologist makes his/her assessment, to provide tribal input on the evaluation.

After the archaeological assessment is completed, the archaeologist shall submit a CRHR eligibility recommendation to the State Water Board. If a resource is determined by the State Water Board, based on recommendations of the qualified archaeologist, and Tribe as appropriate, to constitute a "historical resource" or "unique archaeological resource", or a "tribal cultural resource", time allotment and funding sufficient to allow for implementation of avoidance measures, or appropriate mitigation, must be available. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2 for unique archaeological resources, and

section 21084.3 for tribal cultural resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. If the find is Native American, the SWRCB and landowner shall, in good faith, consult with Tribe on the disposition and treatment of any Native American artifacts or other cultural materials encountered during the project.

VI ENERGY

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	□	□	□	■
b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	□	□	□	■

Environmental Setting

The California Energy Commission (Energy Commission) was charged with developing the state's Renewable Energy Program in 1998, following deregulation of electric utilities. The Energy Commission provides a brief history of its actions with regard to the Renewable Energy Program:

> In 2002, California established its Renewables Portfolio Standard (RPS) Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent by 2017. The Energy Commission's 2003 Integrated Energy Policy Report recommended accelerating that goal to 2010, and the 2004 Energy Report Update urged increasing the target to 33 percent by 2020. Governor Schwarzenegger, the Energy Commission, and the California Public Utilities Commission (CPUC) endorsed this enhanced goal for the state as a whole. Achieving these renewable energy goals became even more important with the enactment of AB 32 (Núñez, Chapter 488), the California Global Warming Solutions Act of 2006. This legislation sets aggressive greenhouse gas reduction goals for the state and its achievements will depend in part on the success of renewable energy programs.
>
> SBX1-2 was signed by Governor Edmund G. Brown, Jr., in April 2011 to codify the ambitious 33 percent by 2020 goal. In his signing comments, Governor Brown noted that "This bill will bring many important benefits to California, including stimulating investment in green technologies in the state, creating tens of thousands of new jobs, improving local air quality, promoting energy independence, and reducing greenhouse gas emissions."
>
> This new RPS applied to all electricity retailers in the state including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must adopt the new RPS goals of 20 percent of retails sales from renewables by the end of 2013, 25 percent by the end of 2016, and the 33 percent requirement being met by the end of 2020.
>
> In October 2015, Governor Brown signed Senate Bill 350 to codify ambitious climate and clean energy goals. One key provision of SB 350 is for retail sellers and publicly

owned utilities to procure "half of the state's electricity from renewable sources by 2030.[10]"

These goals were accelerated in 2016 with passage of SB 32 requiring lowering greenhouse gas emissions to 40 percent below 1990 levels by 2030. Further, "In 2018, Senate Bill 100...set a planning target of 100 percent zero-carbon electricity resources by 2045 and increased the 2030 renewables target from 50 percent to 60 percent. On the same day of signing SB 100, then-Governor Brown signed Executive Order B-55-18 with a new statewide goal to achieve carbon neutrality (zero-net GHG emissions) by 2045 and to maintain net negative emissions thereafter. The executive order covers all sectors of the economy[11]."

Today, California's energy policies are intertwined with goals of reducing greenhouse gases. The Energy Commission produces the biennial Integrated Energy Policy Report. The report contains an integrated assessment of major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety. The most recent report was divided into two sections. Volume I was produced in 2018 and Volume II was released in February 2019[12].

CURRENT ENERGY USAGE AND SOURCES

Power to the project area is provided by PG&E. As of 2019, PG&E supplied 29 percent of its electricity from renewable resources under the California Renewables Portfolio Standard. PG&E intends to supply 50 percent renewable electricity by 2030, consistent with California's goals. Additionally, in 2019, 44 percent of PG&E electricity was from nuclear power and 27 percent was from hydroelectric, for a total of 100 percent GHG free electricity[13].

Analysis

a. Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Project construction would only account for a minor use of energy, primarily associated with fuels used in construction vehicles. All construction vehicles would be California-compliant to ensure state goals of energy efficiency and air quality are maintained. The water mains and storage tank would not require energy after installation. The well pump and treatment facilities would be updated with new equipment, effectively lowing future energy use. The project is necessary to meet existing regulations and improve water system reliability for an existing community and would not result in a wasteful, inefficient, or unnecessary consumption of energy resources.

[10] https://www.energy.ca.gov/renewables/history.html
[11] Ibid.
[12] https://www.energy.ca.gov/2018_energypolicy/
[13] https://www.pge.com/pge_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2020/1220-PowerContent-ADA.pdf

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. As indicated previously, electricity to the project is currently provided by PG&E which is exceeding the state's renewable energy goals.

Cumulative Impacts

There are no adverse cumulative environmental impacts to energy resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to energy have been identified; therefore, no mitigation is required.

VII GEOLOGY & SOILS

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project 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. Would the project result in substantial soil erosion or the loss of topsoil?	□	□	■	□
c. Would the project 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. Would the project 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. Would the project 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. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	□	■	□	□

Environmental Setting

REGIONAL GEOLOGY AND TOPOGRAPHY

The project is located on a small ridge above the East Branch South Fork Eel River. The community is relatively flat, gently sloping from south to north with steeper elevations occurring at the southern end. The treatment plant and tank site sit on a bench at a higher elevation than the remainder of the community.

As shown on Figure VII-1, the California Department of Conservation[14] indicates the project service area is underlain by: marine sedimentary rocks (P) from the Pliocene era including Sandstone, siltstone, shale, and conglomerate; mostly moderately consolidated; and marine sedimentary and metasedimentary rocks (KJf) from the Cretaceous-Jurassic era, including Cretaceous and Jurassic sandstone with smaller amounts of shale, chert, limestone, and conglomerate.

SOILS

Soils in the project area are shown on Figure VII-2. Map unit symbols are keyed to soil types below.

Map Unit Symbol	Soil Description
101	Typic Udifluvents-Fluvents complex, 0 to 2 percent slopes
407	Tannin-Wohly complex, 9 to 30 percent slopes
469	Tannin-Wohly complex, 9 to 30 percent slopes
1004	Garberville, dry-Parkland, dry complex, 0 to 2 percent slopes, dry
1005	Parkland, dry-Garberville, dry complex, 2 to 9 percent slopes

SEISMIC CONDITIONS

Throughout Humboldt County and the entire Northern California region, ground shaking from earthquakes represents a significant geologic hazard to developments. The intensity of ground shaking will be dependent on several factors such as: 1) distance from the site to the earthquake focus; 2) depth of earthquake focus; 3) earthquake magnitude; 4) response of the underlying soil and rock; and, 5) topography and local geologic structure.

[14] https://www.conservation.ca.gov/cgs/Pages/Program-RGMP/2010_geologicmap.aspx

Figure VII-1: Regional Geology

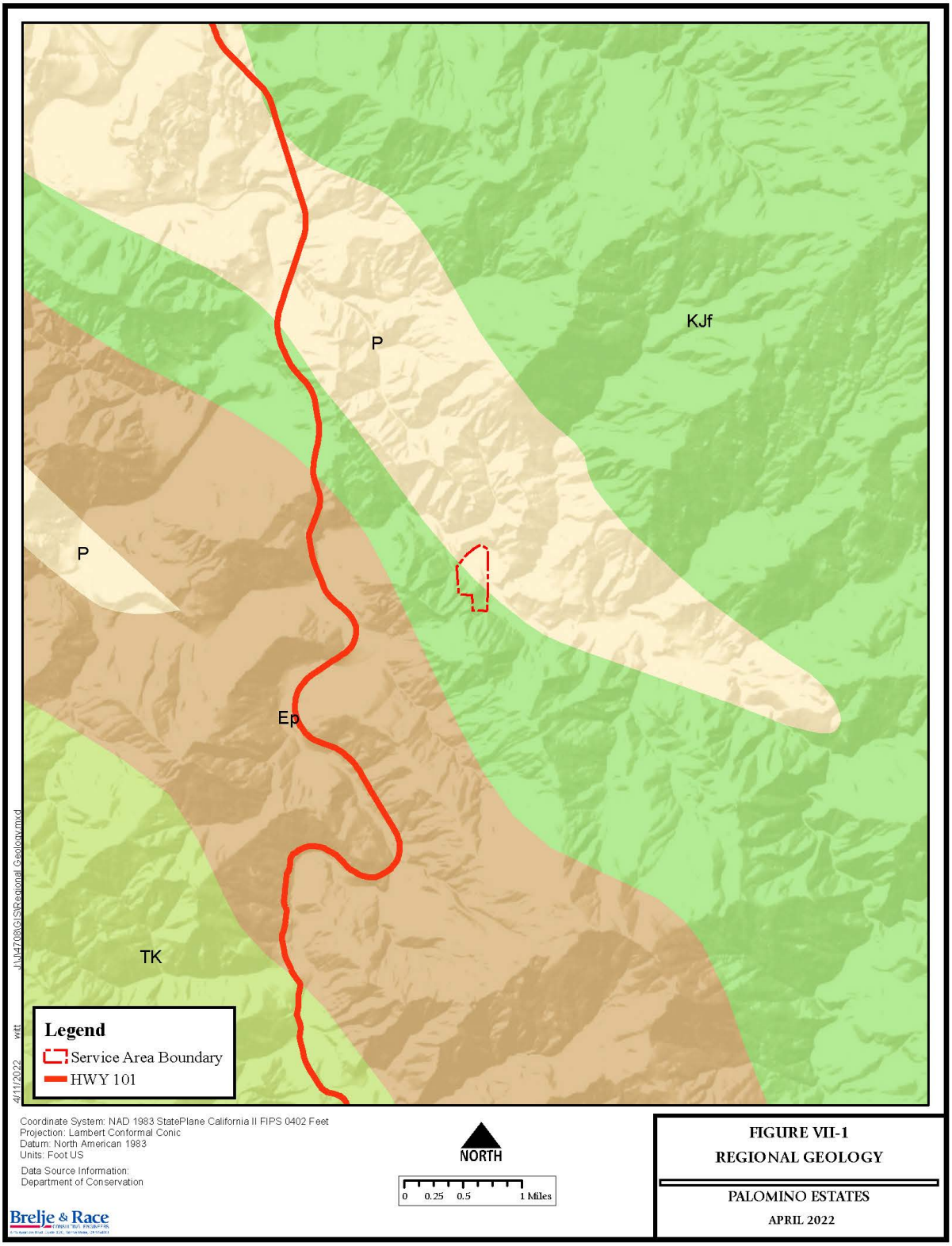


Figure VII-2: Soils

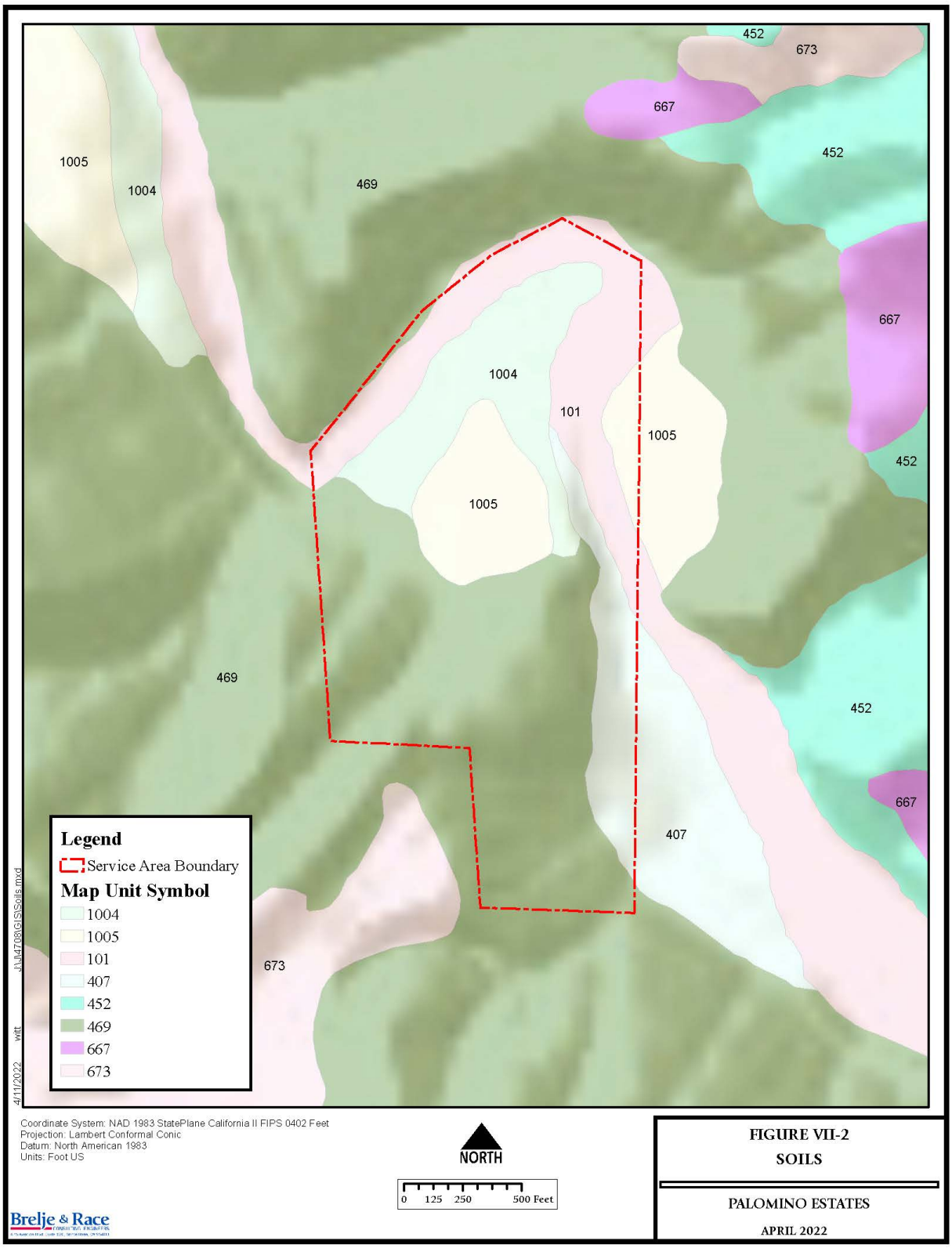
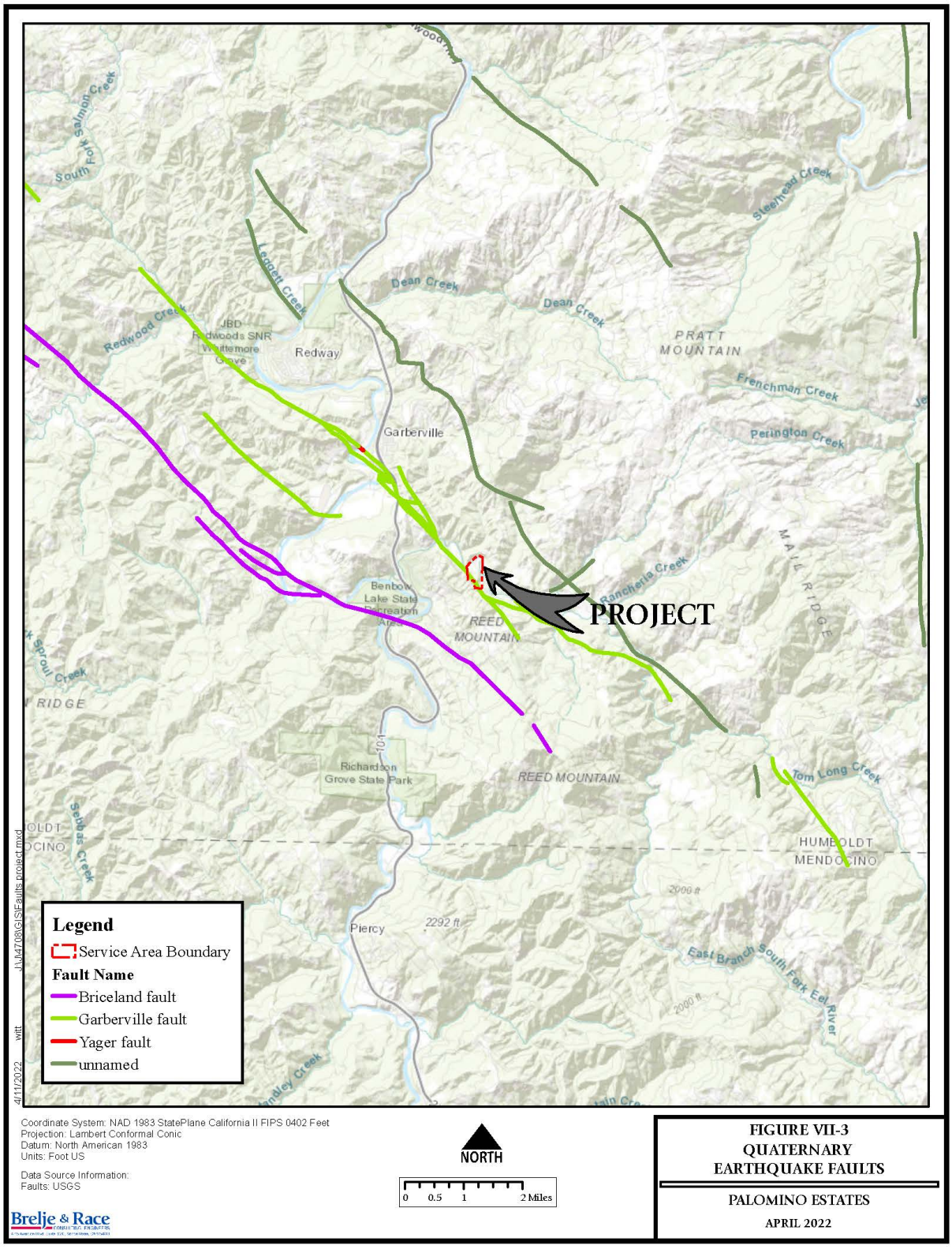


Figure VII-3: Earthquake Faults



Like all of Humboldt County, the project area is within a seismically active area. The nearest faults considered to be 'Holocene-active' (experiencing surface rupture within about the last 11,000 years) are shown below and on Figure VII-3; other faults in the project area are in the 700,000- to two-million-year-old range and considered less likely to result in seismic activity. These faults have the potential to produce earthquakes in the project area.

Fault	Approximate Distance to Fault (miles)	Direction to Fault
Garberville	Within Service Area	Southwest
Briceland	1	Southwest
Yager	2.6	Northwest

LIQUEFACTION

Liquefaction is the process where water is combined with unconsolidated soils, generally from ground motions and pressure, which causes the soils to behave like quicksand. Liquefaction potential is determined from a variety of factors including soil type, soil density, depth to the groundwater table, and the expected duration and intensity of ground shaking. Liquefaction is most likely to occur in deposits of water-saturated alluvium or areas of considerable artificial fill.

Regulatory Setting

FEDERAL REGULATIONS

Clean Water Act 402 and National Pollutant Discharge Elimination System

The CWA is discussed in detail in the Hydrology and Water Quality section of this document. However, because CWA Section 402 is directly relevant to excavation, additional information is provided below. Amendments in 1987 added Section 402p to establish a framework for regulating municipal and industrial stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) program. The US EPA has delegated to the State Water Board the authority for the NPDES program in California, which is implemented by the state's nine regional water quality control boards. Under the NPDES Phase II Rule, construction activity disturbing one acre or more must be permitted under the state's General Construction Permit. General Construction Permit applicants are required to prepare a Notice of Intent and a Stormwater Pollution Prevention Plan (SWPPP) and implement and maintain Best Management Practices (BMPs) to avoid adverse effects on receiving water quality because of construction activities, including earthwork.

STATE REGULATIONS

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (prior to January 1, 1994, known as the Alquist-Priolo Special Studies Zones Act – CCR, Title 14, Section 3600) sets forth the policies and criteria of the State of California regarding building within active fault zones mapped pursuant to the Act. The Alquist-Priolo Earthquake Fault Zoning Act outlines cities and counties' responsibilities in prohibiting the location of developments and structures for human occupancy across the trace of active faults. The policies and criteria

are limited to potential hazards resulting from surface faulting or fault creep within Earthquake Fault Zones delineated on maps officially issued by the State Geologist. Figure VII-4 shows the project relative to the nearest mapped fault zone.

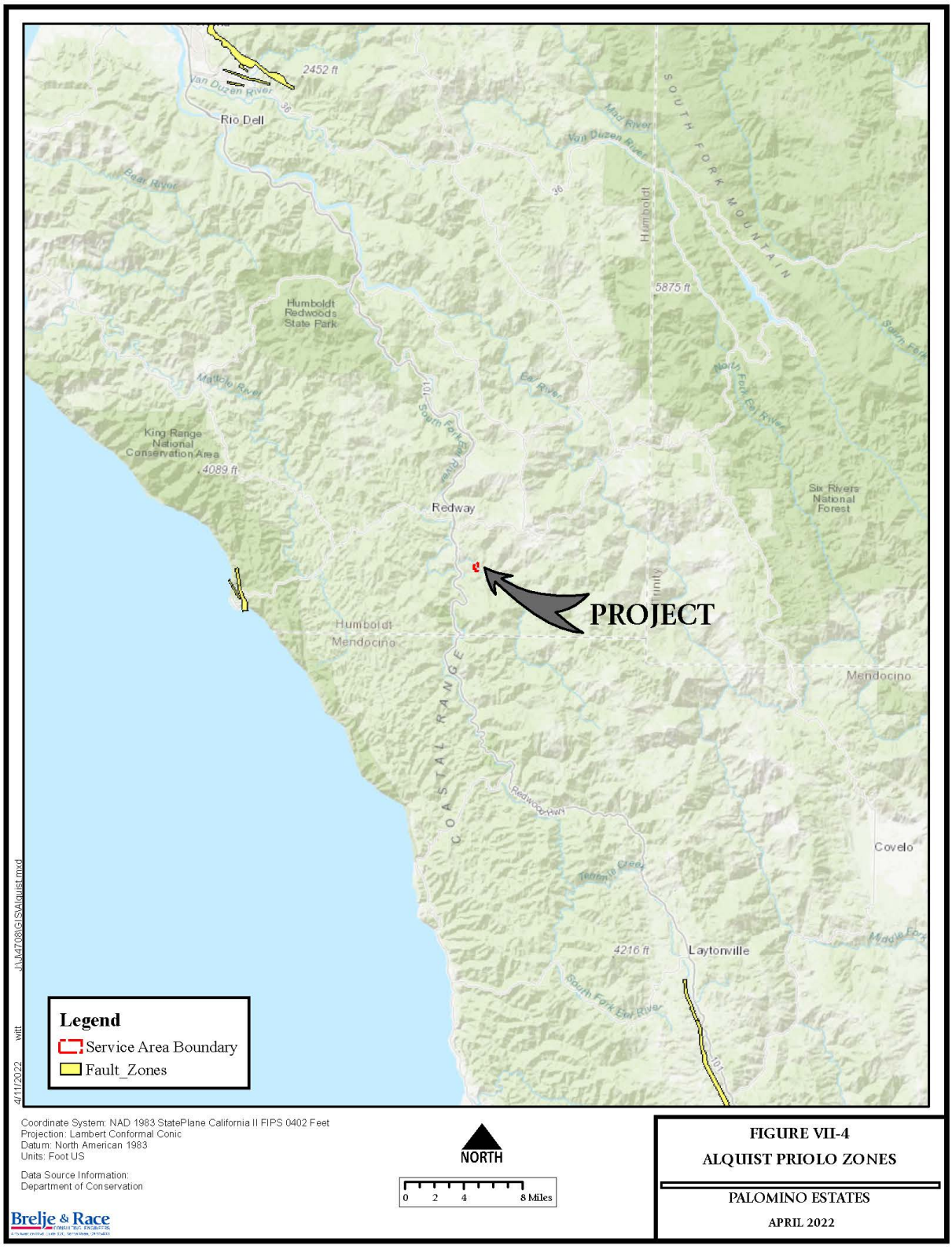
Seismic Hazard Mapping Act

Like the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (PRC 2690 2699.6) is intended to reduce damage resulting from earthquakes. The Seismic Hazards Mapping Act addresses earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. The state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites in Seismic Hazard Zones until appropriate site-specific geologic or geotechnical investigations have been carried out, and measures to reduce potential damage have been incorporated into the development plans.

California Building Code

The California Code of Regulations, Title 24, also known as the California Building Standard Code or the California Building Code (CBC), establishes guidance for foundation design, shear wall strength, and other structurally related concerns. The CBC modified common building regulations for specific conditions found in California and included many more detailed and/or more restrictive regulations. For example, CBC includes common engineering practices requiring special design and construction methods that reduce or eliminate potential expansive soil-related impacts. The CBC requires structures to be built to withstand ground shaking in areas of high earthquake hazards and the placement of strong motion instruments in larger buildings to monitor and record the response of the structure and the site of the seismic activity. Compliance with CBC regulations ensure the adequate design and construction of building foundations to resist soil movement. In addition, the CBC also contains drainage requirements to control surface drainage and to reduce seasonal fluctuations in soil moisture content.

Figure VII-4: Alquist-Priolo Fault Zones



Analysis

a. Would the project directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving:

a.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.

The project area would be not located within an Alquist-Priolo Zone, as shown on Figure VII-3. The project would be required to implement California Building Code Seismic Design Category Requirements into the project design for applicable features to minimize hazards associated with potential fault rupture, ground shaking, and liquefaction. Based on incorporation of appropriate engineering standards, the risk to the project from fault rupture is less than significant.

a.ii. Strong seismic ground shaking?

The project location is subject to strong seismic ground shaking. As shown on Figure VII-4, the Garberville Fault passes through the southwesterly portion of the water service area. The County's GIS system indicates that the project area is designated as Moderate Instability regarding seismic slope stability. The project would not alter existing risks to the community from strong seismic ground shaking. The project would improve the existing water system but would not increase capacity or provide for additional development within the community. Therefore, the project would not expose additional people to such risk.

As indicated in a.i.) above, the project would be designed and constructed in strict adherence with current standards for earthquake-resistant construction, as is standard practice. Risk to the project is less than significant.

a.iii. Seismic-related ground failure, including liquefaction?

As indicated in a.ii.) above, seismic ground shaking could occur in the project area. The project is not in an area mapped as being at risk of liquefaction by the County's GIS system. The project would be designed and constructed in strict adherence with current standards for earthquake-resistant construction, as is standard practice. Risk to the project is less than significant.

a.iv. Landslides?

The project would primarily be constructed within areas with existing infrastructure and residential development. Landslides are not evident at current project locations and the project would not increase the risk of landslides. Landslides are indicated to the north, west and east of the project area by the County's GIS system but no landslides are indicated to be present within the service area.

b. Would the project result in substantial soil erosion or the loss of topsoil?

The project would primarily be within existing roads, existing gravel driveways, or flat areas already utilized for existing facilities. Two pipelines would be routed outside of existing roadways. One would slip line an existing water line and would not result in ground disturbance. The other pipeline at the southern end of the service area would be routed cross country to avoid existing trees and utilize directional drilling to avoid a small wetland area.

Stormwater drainage in the area primarily consists of overland flow over the ground and roadway surfaces that concentrate in man-made drainage elements such as roadside gutters and drainage ditches. Surfaces would be restored to existing conditions once construction is complete to ensure there is no long-term erosion.

The project would have a total disturbance area of approximately 0.3 acre and would not be subject to coverage under the State Water Board Construction General Permit. The project would include an erosion control plan as part of the plans and specifications. Compliance with the erosion control plan would minimize the potential for erosion-related impacts to surface waters to the extent possible. Because the project would comply with current regulations to limit erosion-related water quality impacts during and after construction, there would be a less than significant impact.

c. Would the project 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?

The project area currently supports the existing residential development and water system. The proposed project components would replace existing water system infrastructure. Appropriate design according to professional standards and regulations contained in the most recent edition of the California Building Code would ensure that any risk from on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse is less than significant to those facilities. The County's GIS does not indicate the project area to be at risk of landslide or liquefaction. The project area is indicated to be in a moderate instability area for seismic safety[15]. Because the project would be a replacement project for an existing community, the project would not increase existing risks to residents in the service area and would not induce population growth.

d. Would the project 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?

The only above ground structure associated with the project is the proposed storage tank. It is located on Tannin-Burgsblock-Rockyglen complex soils that are well drained and not associated with expansive clays. Appropriate design according to professional standards and regulations contained in the most recent edition of the California Building Code would ensure that any risk from expansive soils is less than significant.

[15] https://webgis.co.humboldt.ca.us/HCEGIS2.0/

e. Would the project 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?

Wastewater service in the project area is provided by individual septic systems. No new wastewater would be generated by the proposed project and no wastewater service is proposed.

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

There are no known paleontological resources or unique geologic features in the project area. Mitigation Measure GS1 is included to preserve any such features discovered during construction and reduces any potential impact to less than significant.

Cumulative Impacts

There are no adverse cumulative environmental impacts to geology and soils resulting from implementation of the proposed project.

Mitigation Measures

GS1

The project plans and specifications shall provide that in the event paleontological site indicators are unearthed during grading, excavation and/or trenching, all ground disturbing work in the vicinity of the discovery shall cease and all exposed materials shall be left in place. After cessation of excavation, the contractor shall immediately contact the State Water Board or its designee. The State Water Board or its designee shall contact a qualified professional geologist or paleontologist immediately after the find. Such consultant shall conduct an evaluation of significance of the site and assess the necessity for mitigation. The contractor shall not resume construction activities until authorization to proceed is received from the State Water Board or its designee.

VIII GREENHOUSE GAS EMISSIONS

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	□	□	■	□
b. Would the project Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	□	□	□	■

Environmental Setting

To fully understand global climate change it is important to recognize the naturally occurring "greenhouse effect" and to define the greenhouse gases (GHG) that contribute to this phenomenon. The temperature on Earth is regulated by this "greenhouse effect," which is so named because the Earth's atmosphere acts like a greenhouse, warming the planet in much the same way that an ordinary greenhouse warms the air inside its glass walls. Like glass, the gases in the atmosphere let in light yet prevent heat from escaping.

Greenhouse gases are naturally occurring gases such as water vapor, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) that absorb heat radiated from the Earth's surface. Greenhouse gases are transparent to certain wavelengths of the Sun's radiant energy, allowing them to penetrate deep into the atmosphere or all the way to Earth's surface. Clouds, ice caps, and particles in the air reflect about 30 percent of this radiation, but oceans and land masses absorb the rest (70 percent of the radiation received from the Sun) before releasing it back toward space as infrared radiation. The greenhouse gases and clouds effectively prevent some of the infrared radiation from escaping; they trap the heat near the Earth's surface where it warms the lower atmosphere.

In addition to natural sources, human activities are exerting a major and growing influence on climate by changing the composition of the atmosphere and by modifying the land surface. Particularly, the increased consumption of fossil fuels (natural gas, coal, gasoline, etc.) has substantially increased atmospheric levels of greenhouse gases. Measured atmospheric levels of certain greenhouse gases such as CO_2, CH_4, and N_2O have risen substantially in recent decades. This increase in atmospheric levels of greenhouse gases unnaturally enhances the "greenhouse effect" by trapping more infrared radiation as it rebounds from the Earth's surface and thus trapping more heat near the Earth's surface.

California Implications

In 2016, CARB published the 2016 California GHG Emissions Inventory, a review and analysis of GHG emissions from 2000 to 2014. According to the report, in 2014, total California GHG emissions were 441.5 million metric tons of CO2 equivalent (MMTCO2e), a decrease of 2.8 MMTCO2e compared to 2013. This represents an overall decrease of 9.4 percent since peak levels in 2004. During the 2000 to 2014 period, per capita GHG emissions in California have continued to drop from a peak in 2001 of 13.9 tons per person to

11.4 tons per person in 2014; an 18 percent decrease[16]. State regulations have begun lowering California's GHG contribution to global GHG levels but managing GHG emissions remains an ongoing priority in California.

State Regulations

CLIMATE CHANGE REGULATORY FRAMEWORK

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Global Warming Solutions Act, which created a comprehensive, multi-year program to reduce GHG emissions in California. AB 32 required CARB to develop a Scoping Plan, adopted in 2008, that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan recognizes that local GHG reduction commitments and climate action plans are essential to the state meeting its targeted emissions reductions. In 2016, the Legislature passed SB 32, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels by 2030. The Scoping Plan was updated in 2017.

California's energy policies are intertwined with goals of reducing greenhouse gases. "In 2018, Senate Bill 100...set a planning target of 100 percent zero-carbon electricity resources by 2045 and increased the 2030 renewables target from 50 percent to 60 percent. On the same day of signing SB 100, then-Governor Brown signed Executive Order B-55-18 with a new statewide goal to achieve carbon neutrality (zero-net GHG emissions) by 2045 and to maintain net negative emissions thereafter. The executive order covers all sectors of the economy... Executive Order B-55-18 follows the spirit of what is required at a global scale to achieve the climate goals of the Paris Agreement, in which signatory nations worldwide agree to sufficiently reduce GHG emissions to avoid catastrophic climate change. This is also consistent with a special report by the Intergovernmental Panel on Climate Change, which found that to avoid catastrophic climate change, global carbon dioxide emissions must decline by about 45 percent below 2010 levels by 2030 and reach net zero by about 2050[17]."

LOCAL REGULATIONS

CARB works with 35 air pollution districts in California to enforce air pollution regulations. The NCUAQMD enforces air quality regulations in Humboldt County. Many metropolitan air pollution districts, cities, and counties have adopted Local Climate Action Plans consistent with CARB Scoping Plan goals. Due to the rural nature of the project area, neither the NCUAQMD nor the County of Humboldt have developed a Climate Action Plan.

Because the NCUAQMD has not developed GHG regulations or a Climate Action Plan, it has not identified a significance threshold for GHG emissions or a methodology for analyzing air quality impacts related to greenhouse gas emissions. The NCUAQMD has not adopted its own thresholds of significance for project emissions. The NCUAQMD utilizes the Best Available Control Technology (BACT) emission rates for stationary sources as defined and listed in the NCUAQMD Rule and Regulations, Rule 110 to determine significance, but those thresholds do not include GHGs. Similarly, the County has not prepared a Climate Action Plan so there is no established local threshold of significance for GHGs.

[16] https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2014/ghg_inventory_trends_00-14_20160617.pdf
[17] *2018 Integrated Energy Policy Report Update Volume II*. California Energy Commission. January 2019.

The nearby Sacramento Metropolitan Air Quality Management District[18] (SMAQMD) adopted GHG thresholds of significance in 2014 that are contained in the SMAQMD's CEQA Guide[19]. For land development and construction projects, the threshold has been established as 1,100 metric tons per year (MT/yr) for construction and operational phases. Stationary sources (projects that do not involve transportation impacts) have been determined to have an operational threshold of 10,000 MT/yr. Since neither the NCUAQMD nor Humboldt County has adopted these thresholds, the SMAQMD's thresholds are a useful guideline for assessing this project's potential impacts. Other thresholds adopted by SMAQMD are generally consistent with the BACT rates, so the SMAQMD threshold will be utilized here. The NCUAQMD determined this approach is satisfactory for analysis of the project[20].

Analysis

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Pipeline construction GHG emissions were modeled using the Roadway Construction Emissions Model developed by SMAQMD for transportation and pipeline projects and tank site construction emissions were modeled with CalEEMod 2020.4.0, as described in the Air Quality section. Modeled construction related CO2e emissions are shown below and are expected to be 126.38 MT/yr CO2e, under SMAQMD's 1,100 MT/yr threshold and therefore are less than significant. Because the project would improve the existing water system and does not induce growth, operational emissions would be essentially unchanged and were not quantified.

SMAQMD Thresholds of Significance		**Project Emissions**	
	Construction Average Daily Emissions (MT/yr)	Pipeline Construction Emission Estimates (MT/yr)	Tank Site Construction Emission Estimates (MT/yr)
GHG as CO2e	1,100	88.73	37.65

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Neither NCUAQMD nor Humboldt County have adopted a Climate Action Plan. Because the project does not exceed the SMAQMD's construction threshold of 1,100 MT/yr and operational emissions would be essentially unchanged, the project would not impede implementation of a local Climate Action Plan, should one be developed.

[18] The Sacramento Metropolitan Air Quality Management District is used here because the BAAQMD has not adopted a threshold for construction-related GHG emissions in its CEQA Guidelines utilized in the Air Quality section of this document.
[19] http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/CEQA-Guidance-Tools
[20] Email correspondence with Winston Condon, NCUAQMD Permit Engineer. April 19, 2021.

Cumulative Impacts

As indicated in a.) above, the project would result in short-term emissions of GHGs associated with project construction. Construction-related emissions are not considered to be cumulatively considerable based on the limited nature of the construction project and emissions expected to below the 1,100 MT/yr threshold.

Mitigation Measures

No adverse environmental impacts to greenhouse gas emissions have been identified; therefore, no mitigation is required.

IX HAZARDS & HAZARDOUS MATERIALS

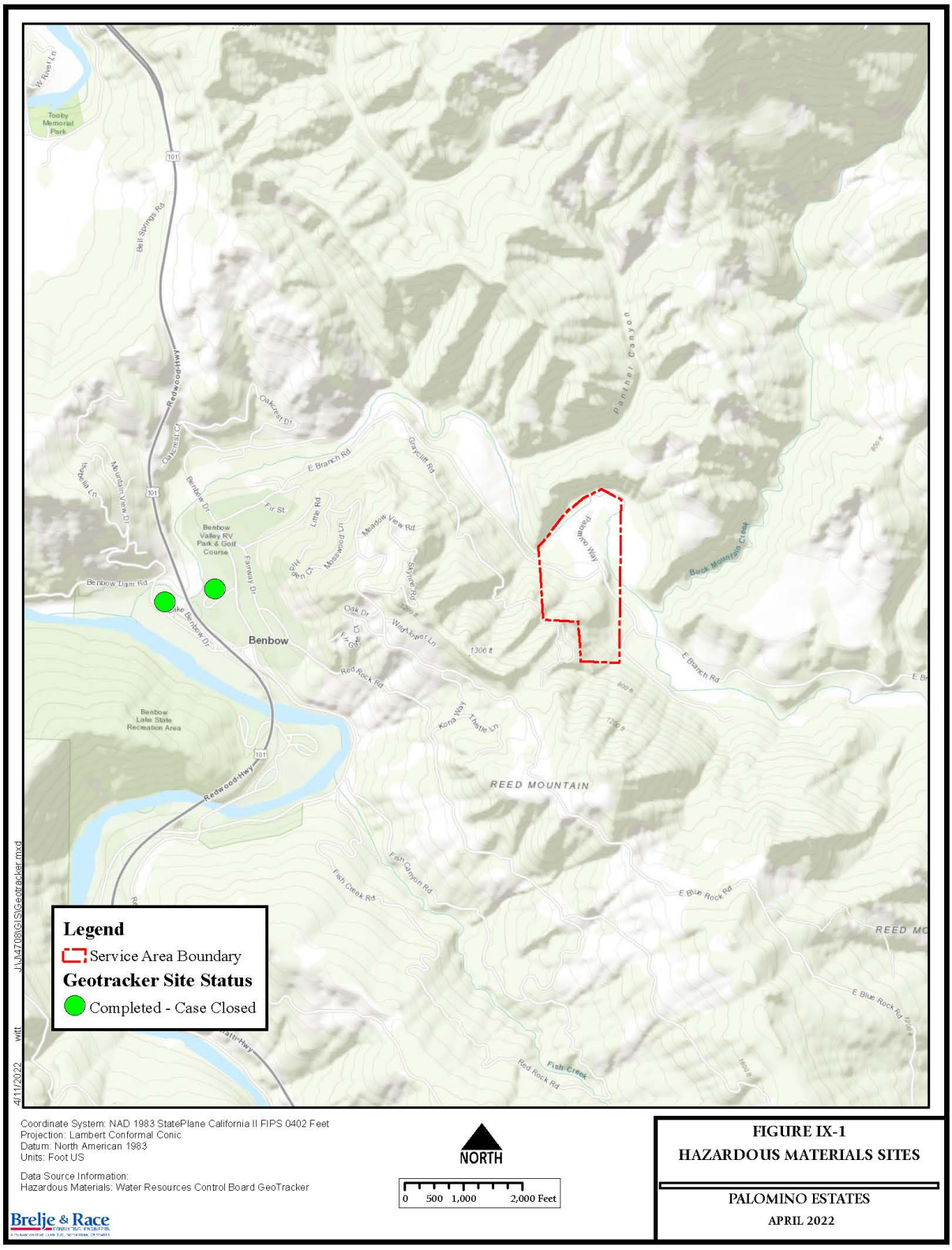
	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	□	□	□	■
b. Would the project 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. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	□	□	□	■
d. Would the project 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. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	□	□	■	□
g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	□	□	□	■

Environmental Setting

There are no known hazardous materials sites adjacent to or within 1,000 feet of proposed pipeline sites. Sites listed on California's Geotracker system are shown on Figure IX-1. Implementation of the project would require the use of small quantities of hazardous materials, including petroleum and other chemicals, to operate and maintain construction equipment. Ongoing water treatment would continue to utilize small quantities of chemicals for testing and water treatment.

The Garberville Airport is located approximately 2.8 miles northwest of the project area.

Figure IX-1: Hazardous Materials Sites



REGULATORY SETTING

Federal Regulations

Hazardous materials in the project area are subject to applicable federal regulations, including the Resource Conservation and Recovery Act and the Comprehensive Environmental Response, Compensation, and Liability Act. Other applicable federal regulations are contained primarily in CFR Titles 29, 40, and 49.

State Regulations

California regulations are as stringent as or more stringent than federal regulations. The US EPA has granted the State of California primacy oversight responsibility for administering and enforcing hazardous waste management programs. State regulations require planning and management to ensure that hazardous wastes are handled, stored, and disposed of properly to reduce risks to human and environmental health.

Analysis

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The project would replace existing water distribution mains, improve the existing well and water treatment system and replace the existing water storage tank. Sodium hyporchlorite is utilized for disinfection so no chlorine gas is currently or would be stored at the treatment site. None of the existing or proposed water system elements are associated with hazardous materials. Construction of the proposed project would include the use and short-term storage of hazardous materials. These materials include, but are not limited to: lubricants, adhesives, paints, asphalt, fuel, and toxic solvents. The proposed project would be required to comply with federal, state, and local regulations regarding the storage, handling, disposal, and cleanup of hazardous materials. No routine transport, use, or disposal of hazardous materials would be associated with the project and the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

b. Would the project 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?

As indicated above, the project would not introduce new long-term hazardous materials or hazardous materials handling. There is the potential for a fuel/oil spill during construction from construction vehicles and equipment. Mitigation Measure HM1 would reduce such impact to a less than significant level.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The project would not result in emissions or handling of hazardous materials within one quarter mile of an existing or proposed school. No schools are located within one quarter mile of the project location.

The project would include improving the existing water system and would not emit hazardous emissions or handle hazardous or acutely hazardous materials.

d. Would the project 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?

The proposed project would not be near any hazardous materials sites listed by the State Water Board GeoTracker system as shown on Figure IX-1. There are no listed sites within 1,000 feet of any of the proposed project components. There is the possibility, as with any construction project, that contaminated soils may be found during construction. In that event, mitigation measure HM1 requires the contractor to cease work and contact the State Water Board and the Regional Board to develop a plan to dispose of the soils and to ensure worker safety and protection of 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?

The nearest public use airport, the Garberville Airport, is located approximately 2.8 miles northwest of the project area. The project is not located within the airport's airport land use plan area. Therefore, there would be no impact.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The Mendocino County Office of Emergency Services (OES) is the primary local coordinating agency for emergency response planning in Humboldt County and its incorporated cities. The Sheriff is the designated Director of Emergency Services for the Operational Area.

OES has assessed potential risks to the County through development of the Humboldt County Local Hazard Mitigation Plan[21]. Primary threats to the country identified in the Local Hazard Mitigation Plan include earthquakes, wildfire, severe weather, landslide, sea level rise, flooding, tsunami, drought, and dam failure. Threats to the project area would not include sea level rise, tsunami, or dam failure.

The County has also prepared the County Emergency Operations Plan (EOP)[22] that serves as the primary guide for coordinating and responding to all emergencies and disasters within the county. Local emergency services are provided by the Humboldt County Sheriff and the local fire departments.

In the event of an emergency, an efficient roadway and circulation system is vital for the evacuation of residents and the mobility of fire suppression, emergency response, and law enforcement vehicles. As contained in Mitigation Measure TT1, the contractor shall develop a traffic management plan that ensures the existing roadway system within the project area shall be kept accessible to residents and to

[21] *Humboldt County Local Hazard Mitigation Plan*. County of Humboldt. 2020.
[22] *Humboldt County Emergency Operations Plan*. County of Humboldt. 2015.

all first responder units by the incorporation of half-width improvements and traffic control utilization. As such, this impact would be less than significant.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The project includes replacing and improving existing water infrastructure, including provision of fire hydrants and required fire storage, both beneficial to fire fighting. Once completed, the project would primarily be underground and would not increase the risk of wildland fires.

Cumulative Impacts

There are no adverse cumulative environmental impacts to or from hazards/hazardous materials resulting from implementation of the proposed project.

Mitigation Measures

HM1

The contractor shall be required to follow the provisions of § 5163 through 5167 of the General Industry Safety Orders (California Code of Regulations, Title 8) to protect the project area from being contaminated by accidental release of any hazardous materials.

In general, the Contractor shall maintain awareness of potential signs of soil and groundwater contamination throughout the project limits and shall notify the State Water Board or its designee immediately upon discovery of any potential soil or groundwater contamination.

If hazardous materials are encountered during construction or occur because of an accidental spill, the contractor shall halt construction immediately, notify the State Water Board or its designee, and implement remediation in accordance with the project specifications and applicable requirements of the Regional Board. Disposal of all hazardous materials shall follow current California hazardous waste disposal laws.

X HYDROLOGY & WATER QUALITY

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	□	□	■	□
b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	□	□	□	■
c. Would the project 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 a 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 offsite?	□	□	□	■
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	□	□	□	■
iv. impede or redirect flows?	□	□	□	■
d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?	□	□	□	■
e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	□	■	□	□

Environmental Setting

SURFACE WATER

The project is located at the westerly end of the East Branch South Fork Eel River. As shown on Figure X-1, the project is located near the end of the 76 square mile watershed. There are numerous other streams in the project area, as shown on Figure X-1. There are no designated wild or scenic rivers in the immediate project area, as shown on Figure X-2.

GROUNDWATER RESOURCES

The community's water supply is from river underflow and is not dependent on ground water. The proposed project does not include any new wells, only refurbishment of the existing well. As shown on Figure X-3, the project is not located over a mapped groundwater basin.

FLOODING

The East Branch of the South Fork Eel River flows east to west along the eastern and northern portions of the project area. Portions of the service area, including the well site, are located within a designated 100-year inundation area (Zone A), as shown on Figure X-4. With the exception of the existing well, none of the proposed project infrastructure is located within designated flood zones.

Regulatory Setting

CLEAN WATER ACT

Important applicable sections of the federal Clean Water Act (CWA) (33 USC 1251–1376) are identified below:

- Sections 303 and 304 provide water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for any federal permit that proposes an activity that may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the CWA. Certification is provided by the Regional Water Quality Control Board (Regional Board).
- Section 402 establishes the NPDES permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the United States. This permit program is administered by the Regional Board.

State Water Resources Control Board

The State Water Board is responsible for implementing the Clean Water Act and issues NPDES permits to cities and counties through regional water quality control boards. The project location is regulated by the North Coast Regional Water Quality Control Board.

The State Water Board has issued a statewide General Permit (Water Quality Order No. 99-08-DWQ) for construction activities within the state. The Construction General Permit (CGP) is implemented and enforced by the Regional Boards. The CGP applies to construction activity that disturbs one acre or more and requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that identifies best management practices (BMPs) to minimize pollutants from discharging from the construction site to the maximum extent practicable.

The State Water Board has also issued a statewide General Permit (Water Quality Order No. 97-03-DWQ) for regulating stormwater discharges associated with industrial activities. This General Permit requires the implementation of management measures that will achieve the performance standard of best available technology economically achievable and best conventional pollutant control technology. It also requires the development of a SWPPP, a monitoring plan, and the filing of an annual report.

Figure X-1: Surface Waters

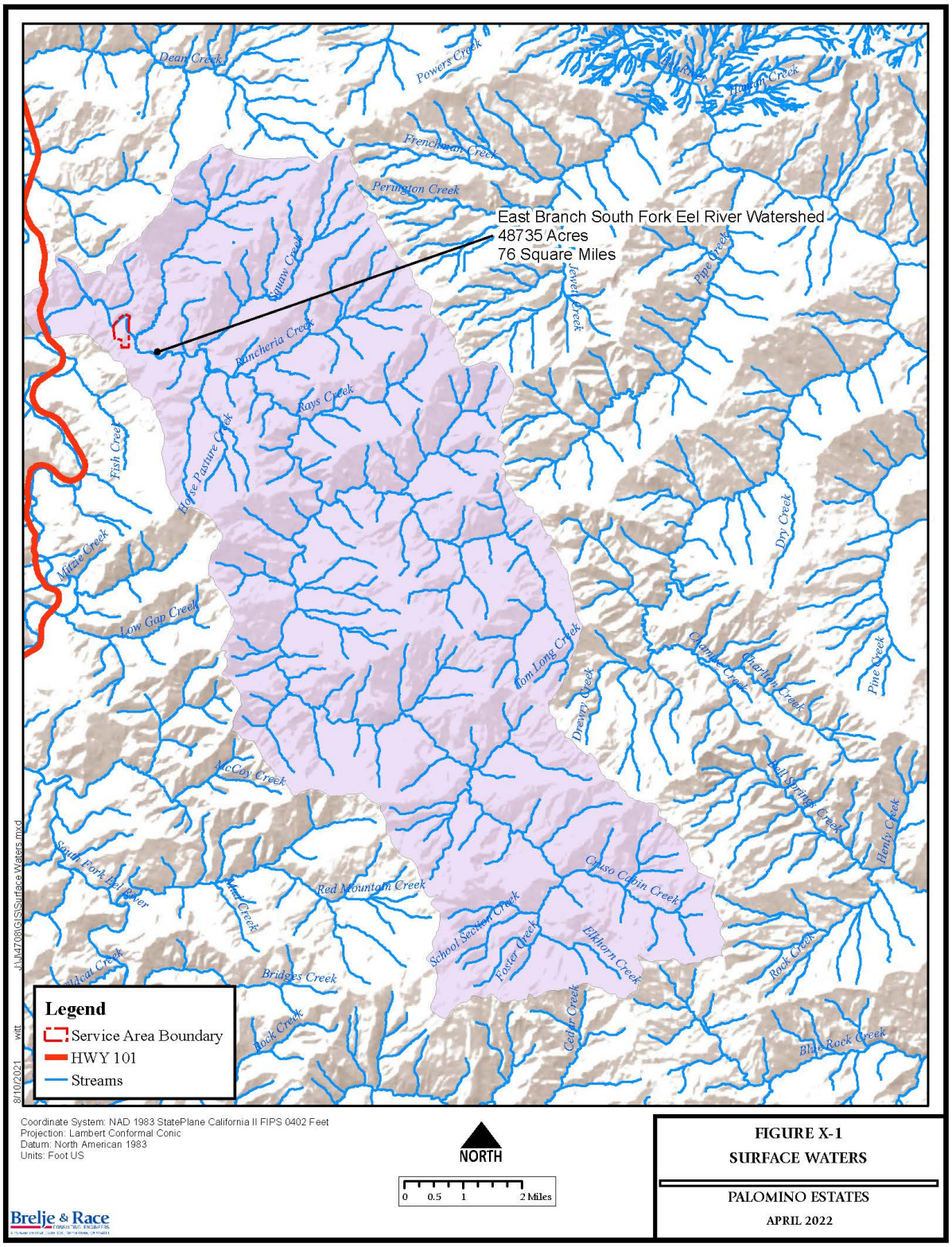


Figure X-2: Scenic Rivers

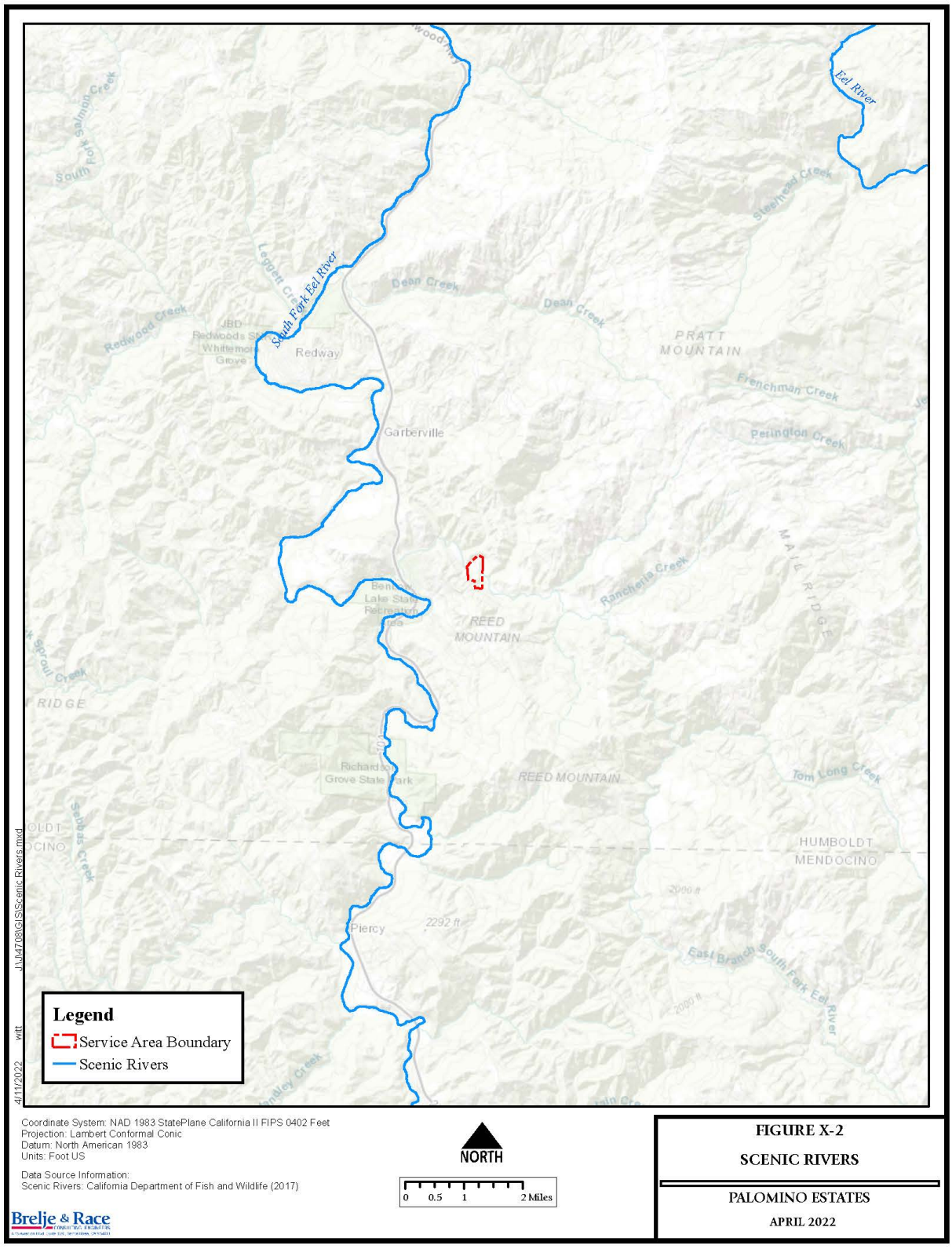


Figure X-3: Groundwater Basins

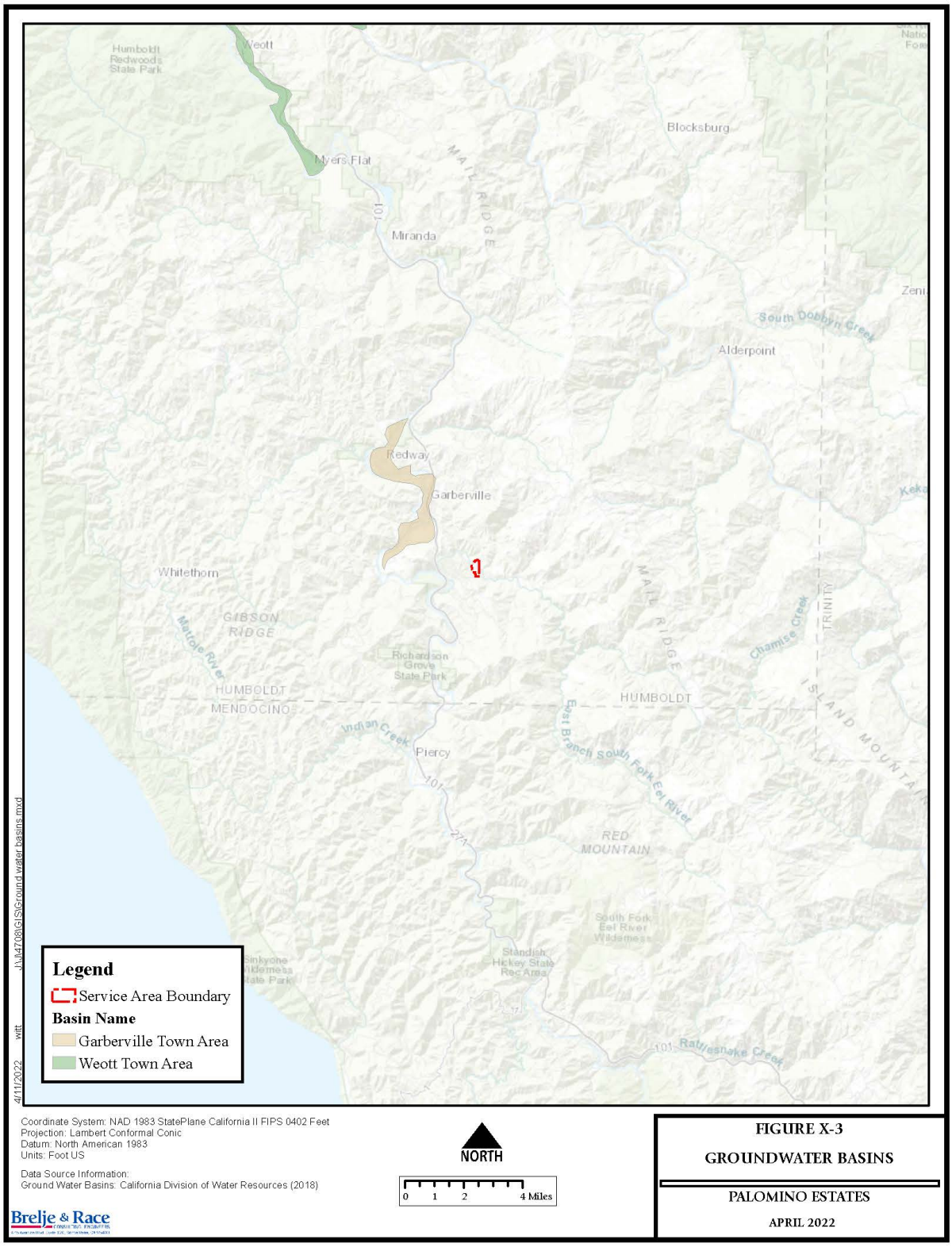
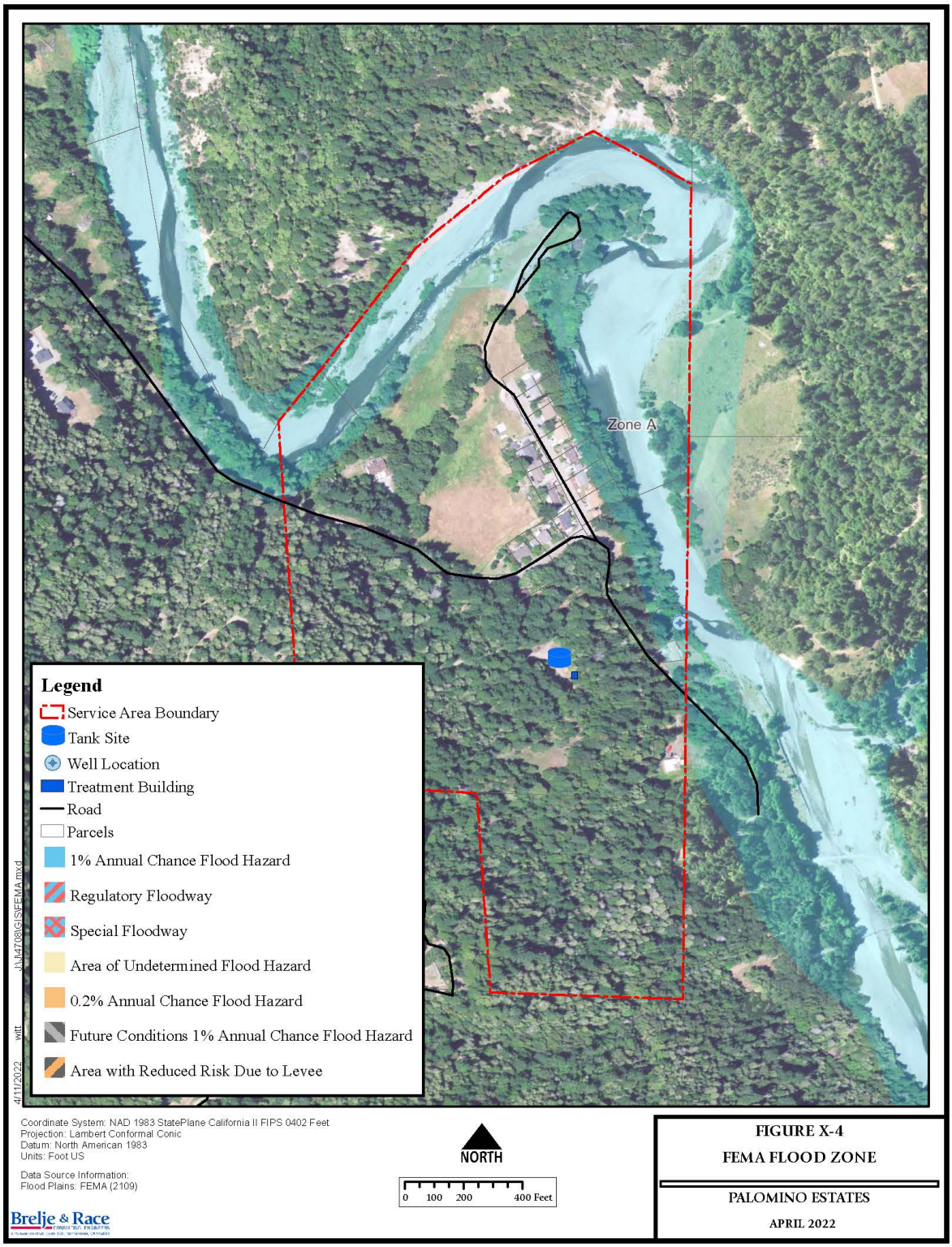


Figure X-4: FEMA Flood Zones



Porter-Cologne Water Quality Act

The State of California's Porter-Cologne Water Quality Control Act (California Water Code, Section 13000 et seq.) provides the basis for water quality regulation in California. This Act requires a Report of Waste Discharge for any discharge of waste (liquid, solid, or otherwise) to land or surface waters that may impair a beneficial use of surface or groundwater of the state. Based on the report, the Regional Boards issue waste discharge requirements to minimize the effect of the discharge.

Analysis

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The project has the potential to cause construction-related violations of water quality standards. Implementation of the proposed project would involve excavation, grading, and other construction activities involving soil disturbance at all locations that may impact water quality by increasing the potential for erosion and sedimentation. Soil disturbance associated with construction activities may cause accelerated soil erosion and sedimentation and/or the release of pollutants to downstream properties and facilities that could impact water quality standards or waste discharge requirements. In the unlikely event groundwater is encountered during construction, it would be land applied in a manner to prevent it entering water ways and allowed to percolate back into the soil. In the very unlikely event construction-related groundwater would need to be directed to waterways, it would only be done so under the appropriate permit coverage.

The State General Construction Activity Storm Water Permit (CGP) applies to construction activities that disturb one acre or more and requires the preparation and implementation of a SWPPP. As indicated in the Geology and Soils section, the project would have a total disturbance area of approximately 0.30 acres and would not be subject to coverage under the State Water Board CGP. The project would include an erosion control plan as part of the plans and specifications. Compliance with the erosion control plan would minimize the potential for erosion-related impacts to surface waters to the extent possible. Because the project would comply with current regulations to limit erosion-related water quality impacts during and after construction, any impact would be less than significant.

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

Water has been, and would continue to be, provided by the Palomino Estates' existing water supply coming from the well at the East Branch South Fork Eel River. The proposed project would replace portions of the existing water distribution system to improve system resiliency, provide increased storage and improve water treatment at the existing water treatment facility. The project is not growth inducing and would not impact existing demands or groundwater levels in the project area or elsewhere. The project does not introduce any new impervious surfaces (existing surfaces would be restored to existing conditions) and would not substantially interfere with groundwater recharge or groundwater basin management.

c. Would the project 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:

c.i. result in a substantial erosion or siltation on- or off-site?

The project would not substantially alter the existing area drainage at any of the project locations in a manner which would result in substantial erosion or siltation. No significant new impermeable surfaces would be introduced, and existing surfaces would be restored.

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

The project would not alter the course of a stream or river and would not substantially alter the existing drainage pattern of the project area. As shown on Figure X-4, portions of the service area are within flood zones but, with the exception of the existing well, project elements are not. The project would not substantially increase the rate or amount of surface runoff.

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

The project does not significantly alter existing grades in the project area or introduce any new impervious surfaces that would impact local stormwater systems or result in substantial additional sources of polluted runoff. There is currently no post-construction stormwater treatment in the project area, and none is proposed by the project due to its subterranean nature and lack of significant impervious surfaces.

c.iv. Would the project impede or redirect flows?

With the exception of the existing well, project locations are not within a mapped 100-year flood hazard area, as shown on Figure X-4. No structures would be placed in the East Branch of the South Fork Eel River floodway. The project would not impede or redirect flood flows.

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

Most of the community is not within a mapped 100-year flood hazard area. With the exception of the existing well, none of the project locations would be in flood hazard, tsunami, or seiche zones and the project would not risk release of pollutants in the unlikely event that the locations were inundated.

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Please see a.) and b.), above.

Cumulative Impacts

There are no adverse cumulative environmental impacts to hydrology/water quality resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to hydrology/water quality have been identified; therefore, no mitigation is required.

XI LAND USE & PLANNING

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project physically divide an established community?	□	□	□	■
b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	□	□	□	■

Environmental Setting

The project is in unincorporated Humboldt County where development is governed by the Humboldt County General Plan and Zoning Ordinance. General Plan designations in the project area include RL and RA20. The zoning within the residentially developed portion of the subdivision is R-1-B-6. Surrounding zoning is a combination of RS, AE, U and TPZ, as shown on Figure XI-1. Land uses in the project area include rural residential uses and small-scale agricultural uses.

The project is also within the Garberville/Redway/Benbow/Adle Point Community Planning Area. The Garberville Redway Alderpoint Benbow Community Plan was originally adopted in 1987 and most recently updated in 2004. The 2017 General Plan consolidated and incorporated most of the community plans, including for this area, and generally supersedes it. None of the community plan policies incorporated into the General Plan have any particular bearing on the project.

Analysis

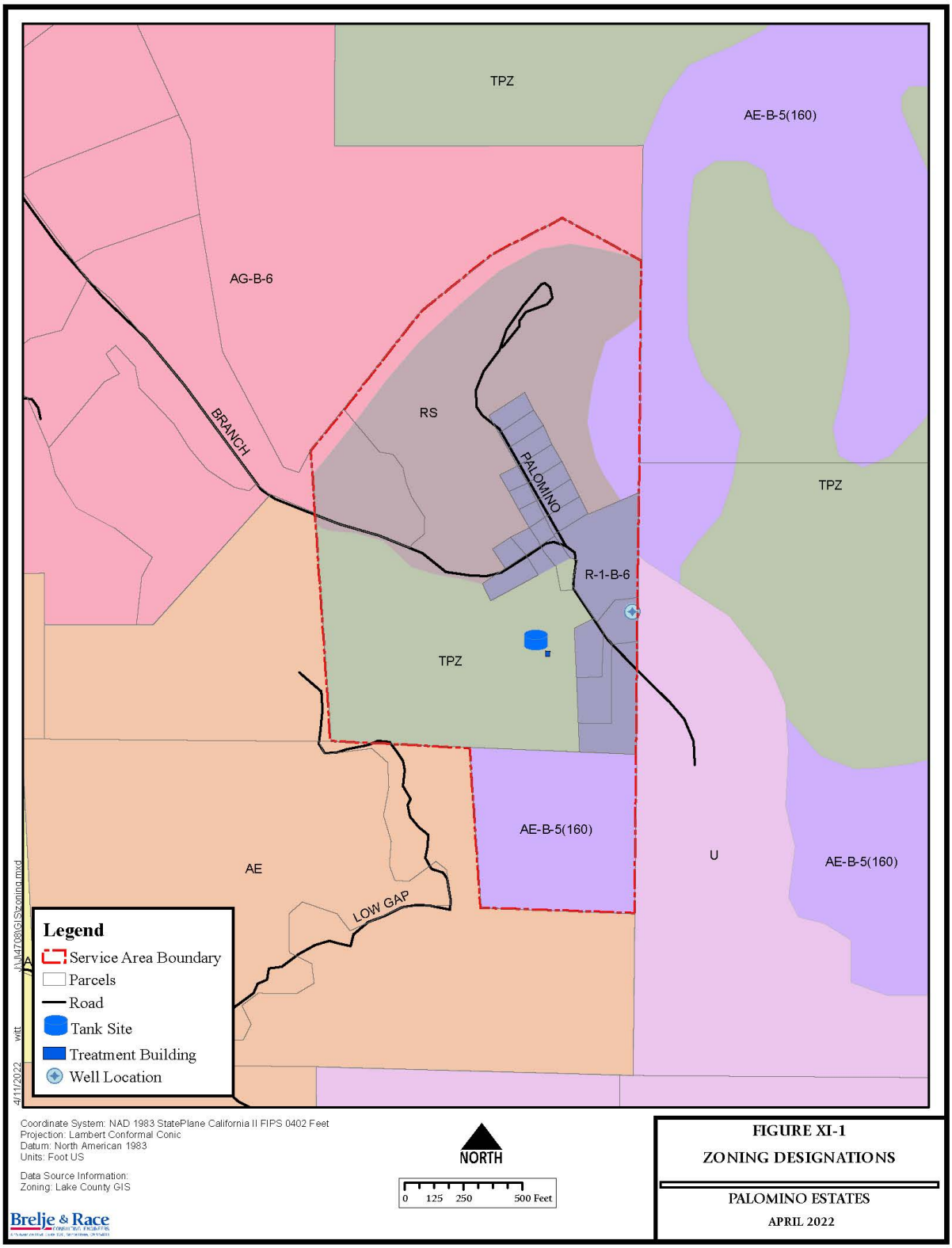
a. Would the project physically divide an established community?

The project would not physically divide an established community. The project occurs within existing roadways, gravel driveways and sites already developed with water treatment and storage infrastructure. Roadways would be restored upon completion of the project. Implementation of the project would improve system resiliency, water quality, and firefighting infrastructure within an established community, a beneficial impact.

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

The project would not conflict with any applicable land use plan, policy, or regulation. All project components occur within public right of way, within public utility easements (existing or to be purchased) or locations with existing water system infrastructure. The General Plan supports improvements to public infrastructure to serve existing development.

Figure XI-1: Zoning Designations



Cumulative Impacts

There are no adverse cumulative environmental impacts to land use and planning resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to land use and planning have been identified; therefore, no mitigation is required.

XII MINERAL RESOURCES

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project 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. Would the project 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

HUMBOLDT COUNTY GENERAL PLAN

No applicable general plan or specific plan indicates that there are mineral resources of value or importance in the immediate project area. A rock extraction site is indicated in Figure 10.1 of the General Plan downstream of the project area.

Analysis

a. Would the project 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?

The project site does not include any known mineral resource that would be of value to the region and the residents of the state. The downstream rock extraction site would not be impacted by the proposed project. The project would not affect the future availability of any such resource.

b. Would the project 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?

The project area is not delineated in the County's General Plan or GIS system as a locally important mineral resource recovery site.

Cumulative Impacts

There are no adverse cumulative environmental impacts to mineral resources resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to mineral resources have been identified; therefore, no mitigation is required.

XIII NOISE

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	□	■	□	□
b. Would the project result in generation of excessive ground borne vibration or ground borne 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

This section includes a description of the terminology and concepts related to noise and vibration impacts that are considered in the analysis. This section also includes a discussion of the existing environmental conditions related to noise-sensitive receptors and ambient conditions found in rural areas such as the project vicinity.

NOISE-SENSITIVE USES

Noise-sensitive land uses in the project area are nearby single-family residences. There are residential uses located adjacent to most of the pipelines that would be replaced.

NOISE CONDITIONS

Existing ambient sound levels in the project area can be considered typical of a rural residential environment. Sources of noise in the area come primarily from traffic along local roadways or residential activities.

CONSTRUCTION NOISE

The types of equipment that would be used to construct the proposed pipeline include dump trucks, backhoes, compactors, compressors, tracked excavators, forklifts, front-end loaders, jackhammers, paving equipment, flat-bed delivery trucks (pickup trucks), and water trucks.

The table below presents the typical noise levels for the construction equipment listed above based on a worst-case scenario including several pieces of the loudest equipment running simultaneously. This includes the typical measured A-weighted Lmax noise levels (maximum noise level) that would occur at a 50-foot

distance from the construction site. The acoustical use factor is the fraction of time that the equipment would typically be in use over a 1-hour period.

Equipment	Acoustical Use Factor	Typical Noise Level (Lmax)[1]
Asphalt/Concrete Truck[2]	40%	76
Backhoe	40%	78
Compactor	20%	83
Compressor	40%	78
Crane	16%	81
Dump Truck	40%	76
Excavator	40%	81
Forklift[3]	40%	75
Front-End Loader	40%	79
Jackhammer	20%	89
Paver	50%	77
Pickup Truck	40%	75
Roller	20%	80
Water Truck[2]	40%	76

Source: Federal Highway Administration 2006

1 dBA, A-weighted decibel level (measured at 50 feet)

2 Based on data for dump truck

3 Based on data for pickup truck

OPERATIONAL NOISE

During operation, the proposed project would not create noise that would be audible. Water mains would be installed below ground and do not emit noise.

Regulatory Setting

LOCAL REGULATIONS

Humboldt County General Plan Noise Exposure Limits

The General Plan and zoning ordinance are the primary ways Humboldt County regulates noise levels and compatible uses. Table 13-C of the Noise Element establishes land use/noise compatibility standards with the maximum interior noise level for residential uses established at 45 dBa. Short-term noise performance standards are established in Policy N-S7 and are shown below.

Zoning	Day (maximum) 6:00 a.m. to 10:00 p.m. dBA	Night (maximum) 10:00 p.m. to 6:00 a.m. dBA
MG, MC, AE, TPZ,TC, AG, FP, FR, MH	80	70
CN, MB, ML, RRA, CG, CR C-1, C-2. C-3	75	65
RM, R-3, R-4	65	60
RS, R-1, R-2, NR	65	60

The above noise criteria have certain exceptions, including "heavy equipment and power tools used during construction of permitted structures when conforming to the terms of the approved permit."

Analysis

a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

The project would not result in any significant long-term increases in noise levels in the project vicinity and would be consistent with noise compatibility standards established in the General Plan. None of the project elements result in new noise sources and are essentially silent. Homes in the project vicinities would be subject to construction-related noise.

Based on typical noise levels associated with equipment used to construct pipelines contained in the previous table, construction activities are expected to result in a temporary increase in noise levels that exceed the County's established noise criteria. However, these impacts are temporary, and construction related, and are exempted by General Plan policy since they relate to construction of permitted structures. It is anticipated that the pipeline construction would average approximately 100 feet per day so no one location would be impacted by excessive noise levels for more than a few days at a time. Mitigation Measure N1 would reduce such temporary construction-related noise to a less than significant level.

b. Would the project result in generation of excessive ground borne vibration or ground borne noise levels?

Implementation of the project would not result in the exposure of people to the generation of ground borne vibration or noise levels. No pile driving, blasting, or similar construction techniques that would generate such vibration are required.

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?

There are no active public use airports within two miles of the project area. The project would not alter the existing noise environment resulting from air traffic.

Cumulative Impacts

There are no adverse cumulative environmental impacts to noise resulting from implementation of the proposed project.

Mitigation Measures

N1

The following measures shall be implemented at the construction site to reduce the effects of construction noise on adjacent residences:

- Noise-generating activities at the construction sites or in areas adjacent to the construction sites associated with the project in any way shall generally be restricted to the hours of 7:00 a.m. to 7:00 p.m. Any work outside of these hours shall require special permission from Palomino Estates. There should be a compelling reason for permitting construction outside the designated hours.
- Palomino Estates shall provide notice to all residents within 100 feet of the construction activities at least 48 hours prior to commencing construction. The notice shall include the contact information for Palomino Estates' noise disturbance coordinator and the anticipated construction schedule.
- All internal combustion engine driven equipment shall be equipped with intake and exhaust mufflers which are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines shall be strictly prohibited.
- All stationary noise-generating construction equipment, such as air compressors and portable power generators, shall be staged as far as practical from existing noise sensitive receptors.
- "Quiet" air compressors and other "quiet" stationary noise sources shall be utilized where technology exists.
- Noise from construction workers' radios shall be controlled to the point where radio noise is not audible at existing residences bordering the project site.

XIV POPULATION & HOUSING

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project 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. Would the project displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	□	□	□	■

Environmental Setting

Palomino Estates is as small residential subdivision within unincorporated Humboldt County. The proposed project does not induce growth. The project would replace deficient water mains, increase water storage, provide modern water treatment, and improve the existing well within the existing water system to serve existing connections.

Analysis

a. Would the project 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)?

The water service area is already built out and no expansion of the service area is proposed. The project would not induce population growth. The project would correct existing waster system deficiencies and increase system resiliency. No additional water supplies would be included in the project.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No housing or people would be displaced by the project. The project would specifically be intended to facilitate the long-term ability to provide the existing community with continued water service.

Cumulative Impacts

There are no adverse cumulative environmental impacts to population and housing resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to population and housing have been identified; therefore, no mitigation is required.

XV PUBLIC SERVICES

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	□	□	□	■
ii. Police protection?	□	□	□	■
iii. Schools?	□	□	□	■
iv. Parks?	□	□	□	■
v. Other public facilities?	□	□	□	■

Environmental Setting

The project area falls within the jurisdiction of the Humboldt County Sheriff. The project is located in a state responsibility fire area and is served by the Garberville Fire Department within the Garberville Proposed District Annexation Area. The project area is served by the Southern Humboldt Joint Unified School District.

Analysis

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a.i. Fire protection?

The project would not have any negative effect on fire protection services. The project does not alter above ground conditions or access to/from the project area. Installation of proposed fire hydrants and increased water storage would be beneficial to fire protection.

a.ii. Police protection?

The project is not growth inducing and would not impact police protection.

a.iii. Schools?

The proposed project is a water system improvement project and would not have a long-term impact to schools. No increase in demand on schools would be associated with the project.

a.iv. Parks?

The project would not impact any parks. Nearby public lands are shown on Figure XVI-1. There are no parks near the project.

a.v. Other public facilities?

The project would not impact other public facilities.

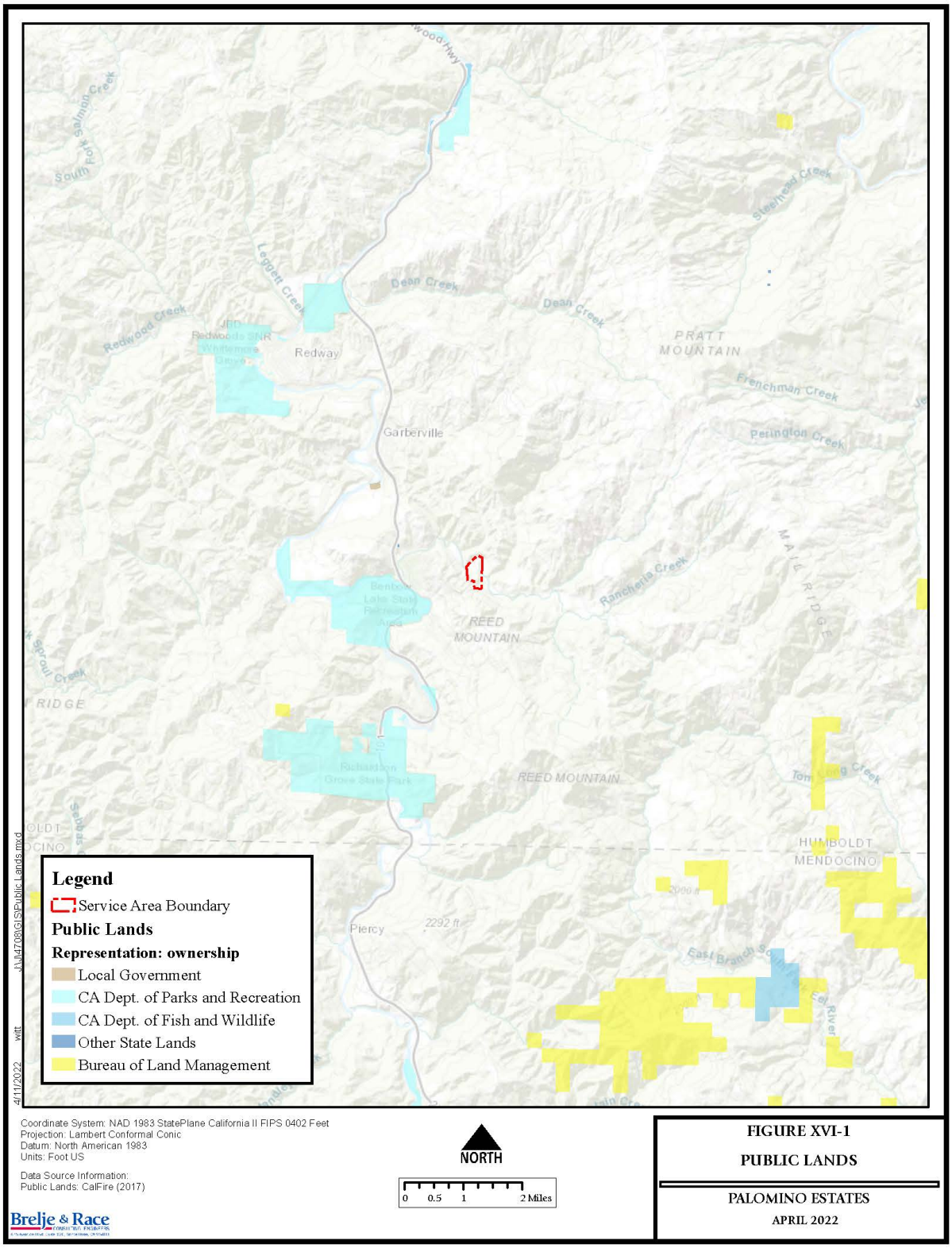
Cumulative Impacts

There are no adverse cumulative environmental impacts to public services resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to public services have been identified; therefore, no mitigation is required.

Figure XVI-1: Public Lands



XVI RECREATION

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	□	□	□	■
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

There are no neighborhood or regional parks or other recreational facilities immediately adjacent to the project. The closest formal public recreation area is the Benbow Lake State Recreation Area just west of Highway 101 in Benbow.

Analysis

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

The project is not growth inducing and would not increase use of existing neighborhood and regional parks or other recreational facilities. The project would not impact any parks.

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?

The project does not include recreational facilities or alter such facilities in any way.

Cumulative Impacts

There are no adverse cumulative environmental impacts to recreation resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to recreation have been identified; therefore, no mitigation is required.

XVII TRANSPORTATION

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project 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 § 15064.3, subdivision (b)?	□	■	□	□
c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	□	□	□	■
d. Would the project result in inadequate emergency access?	□	■	□	□

Environmental Setting

The project area is in a rural residential community east of Benbow and southeast of Garberville. Primary access to the area is via the Highway 101 corridor. East Branch Road connects the project area to the community of Benbow.

Analysis

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. Due to the rural and remote nature of the project area, no such plans exist in the project area. The project would be partially located within roadways but would not have a long-term impact on an applicable transportation plan, ordinance, or policy as the facilities would be located mainly beneath existing roads.

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

The project would not conflict with and is not inconsistent with CEQA Guidelines § 15064.3, subdivision (b). The project would not increase vehicle trips to or from the project area. Where the project impacts roadways, roadway surfaces would be restored to existing conditions or improved upon project completion. The project would not be growth inducing and would not create a destination that would increase traffic. No vehicle miles traveled analysis is necessary as the project would not change existing conditions with regard to traffic.

Roadways would be impacted by short-term construction associated with water main construction. Construction would reduce access to vehicle, pedestrian, and bike traffic within those locations. Standard traffic control mitigation, provided in TT1, would reduce these impacts and ensure traffic flow and access to driveways in the community when active construction is not underway.

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

The project would not increase design hazards. Road surfaces would be restored to existing conditions in the portions of the water main constructed in roadways.

d. Would the project result in inadequate emergency access?

The project would not have any long-term impact to emergency access since roadways would be restored to existing conditions. Construction in roadways could impact emergency response during construction. Mitigation Measure TT2 requires the contractor to maintain emergency access and reduces such impact to less than significant.

Cumulative Impacts

There are no adverse cumulative environmental impacts to transportation/traffic resulting from implementation of the proposed project.

Mitigation Measures

TT1

The contractor shall develop and submit an appropriate Traffic Control Plan (TCP) in accordance with the California Manual of Uniform Traffic Control Devices (MUTCD) for review and approval by Palomino Estates and Humboldt County for all project elements that impact traffic circulation. The TCP shall also include notifying adjacent residents of the construction schedule and when it will impact access. The TCP shall ensure through traffic and temporary driveway access during periods where active construction is not taking place.

TT2

The contractor shall provide advanced notice regarding timing, location, and the duration of construction activities to local emergency responders. The contractor shall ensure emergency responders can always have access through construction areas in roadways.

XVIII TRIBAL CULTURAL RESOURCES

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
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.	□	■	□	□

Regulatory Setting

Assembly Bill 52 (AB52) established a formal consultation process between California Native American Tribes and the CEQA lead agency. All projects subject to CEQA must make a good faith effort to identify known tribal cultural resources (TCR) in the Project area and assess project effects to known TCRs. A TCR is defined as a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe that is either included or eligible for inclusion in the California Register or included in a local register of historical resources. A Native American Tribe or the lead agency, supported by substantial evidence, may choose at its discretion to treat a resource as a TCR. AB52 also mandates lead agencies to consult with tribes, if requested by the tribe, and sets the principles for conducting and concluding consultation.

ENVIRONMENTAL SETTING

On December 3, 2021, a Project notification letter with invitation to consult on the Project were sent by e-mail to the representative of the one tribe on the State Water Board's Assembly Bill (AB) 52 list for Humboldt County: the Wiyot Tribe. Ted Hernandez responded on December 3, 2021, stating the Project was outside of the Wiyot Tribe's territory and suggesting the Bear River Band of the Rohnerville Rancheria be invited to consult on the Project. On December 8, 2021, a Project notification letter with an invitation to consult on the Project was sent to the Bear River Band of the Rohnerville Rancheria. Melanie McCavour requested consultation pursuant to AB 52 in an email on December 27, 2021 and requested a copy of the Cultural Resources Study in an email on December 29, 2021. The State Water Board provided the Cultural Resources Study to Ms. McCavour on December 30 2021. On January 7, 2021, Ms. McCavour stated on behalf of the Bear River Band of the Rohnerville Rancheria that she had reviewed the Cultural Resources study and was satisfied that the Project did not appear to represent a source of significant impact(s) on Tribal Cultural Resources (TCRs). She further requested that standard inadvertent archaeological discovery protocols be in place for any ground disturbing activities of the proposed project, in accordance with: the Humboldt County General Plan policies CU-P1 through CU-P5; Section 7050.5(b) and (c) of the California Health and Safety Code; Sections 5097.94(k) and (i) and 5097.98(a) and (b) of the Public Resources Code (PRC); and Sections 15064.5(d-f) and 15126.4(b) (3) of the CEQA Guidelines.

Analysis

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

a.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)?

No TCRs either listed or eligible for listing were identified in the Project footprint from either the Cultural Resources Assessment prepared for the project (Section V Cultural Resources), or through consultation with the tribe that is traditionally and culturally affiliated with the Project area. However, there is always the possibility of accidental discovery of archaeological tribal cultural resources during construction. If resources are discovered, mitigation measure CR1, contained in the Cultural Resources section, would reduce such impact to less than significant.

a.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.

As part of the AB52 tribal consultation process, project information was sent via email to the Wiyot Tribe on December 3, 2021, and to the Bear River Band of the Rohnerville Rancheria on December 8, 2021. Neither Ted Hernandez of the Wiyot Tribe or Ms. McCavour of the Bear River Band of the Rohnerville Rancheria identified known TCRs that would be impacted by the project. Ms. McCavour stated that she had reviewed the Cultural Resources Study and was satisfied the

Project did not appear to represent a source of significant impact(s) on cultural resources. Based on the cultural report and tribal consultation, no archaeological tribal cultural resources would be impacted and it is considered unlikely that the project would impact TCRs. However, there is always the possibility of accidental discovery of archaeological resources during construction. In the event resources are discovered implementation of mitigation measure CR1, contained in the Cultural Resources section, would reduce such impact to less than significant.

Cumulative Impacts

There are no adverse cumulative environmental impacts to tribal cultural resources resulting from implementation of the proposed project.

Mitigation Measures

Please see Mitigation Measure CR1 contained in the Cultural Resources section.

XIX UTILITIES & SERVICE SYSTEMS

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project 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. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	□	□	□	■
c. Would the project 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. Would the project 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. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	□	□	□	■

Environmental Setting

Palomino Estates currently provides water service to the project area. Solid waste disposal and recycling is centralized at the Redway Transfer Station. Wastewater treatment in the project area is provided by individual septic systems. Electricity and natural gas delivery infrastructure is provided by PG&E.

Analysis

a. Would the project 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?

The project would not require or result in the relocation or construction of new or expanded wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. The project includes replacing existing water mains, increasing water storage and improving water treatment and is subject to environmental review in this document. The project would be designed to avoid impact to other existing utilities. The project is not growth inducing and would not increase demand for utilities in the service areas.

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

The project is a water system improvement project, is not growth inducing, and would not increase demand for water. Existing water supplies are sufficient to meet existing demands and no new entitlements are required.

c. Would the project 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?

The project does not alter the existing septic systems in the project area.

d. Would the project 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?

No increase in solid waste generation would occur as the project would not increase solid waste demands or impair attainment of solid waste reduction goals. Demolition materials from replacement of water mains would be processed according to state regulations.

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The project would comply with federal, state, and local statutes and regulations related to solid waste.

Cumulative Impacts

There are no adverse cumulative environmental impacts to utilities and service systems resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to utilities and service systems have been identified; therefore, no mitigation is required.

XX WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
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

The Mendocino County Office of Emergency Services (OES) is the primary local coordinating agency for emergency response planning in Humboldt County and its incorporated cities. The Sheriff is the designated Director of Emergency Services for the Operational Area.

OES has assessed potential risks to the County through development of the Humboldt County Local Hazard Mitigation Plan. Primary threats to the county identified in the Local Hazard Mitigation Plan include earthquakes, wildfire, severe weather, landslide, sea level rise, flooding, tsunami, drought, and dam failure. Threats to the project area would not include sea level rise, tsunami, or dam failure.

The County has also prepared the County Emergency Operations Plan (EOP) that serves as the primary guide for coordinating and responding to all emergencies and disasters within the county. Local emergency services are provided by the Humboldt County Sheriff and the local fire departments.

Wildland fire is a serious risk in the project area. The community is located within a state responsibility area, as shown on Figure XX-1, and is designated as a High Fire Severity Zone. Designated fire districts and stations are shown on Figure XX-2. Historically, the surrounding area has experienced numerous wildfires, as shown on Figure XX-3. Calfire records do not contain any large fires within the service area.

Figure XX-1: Wildfire Risk and Responsibility Areas

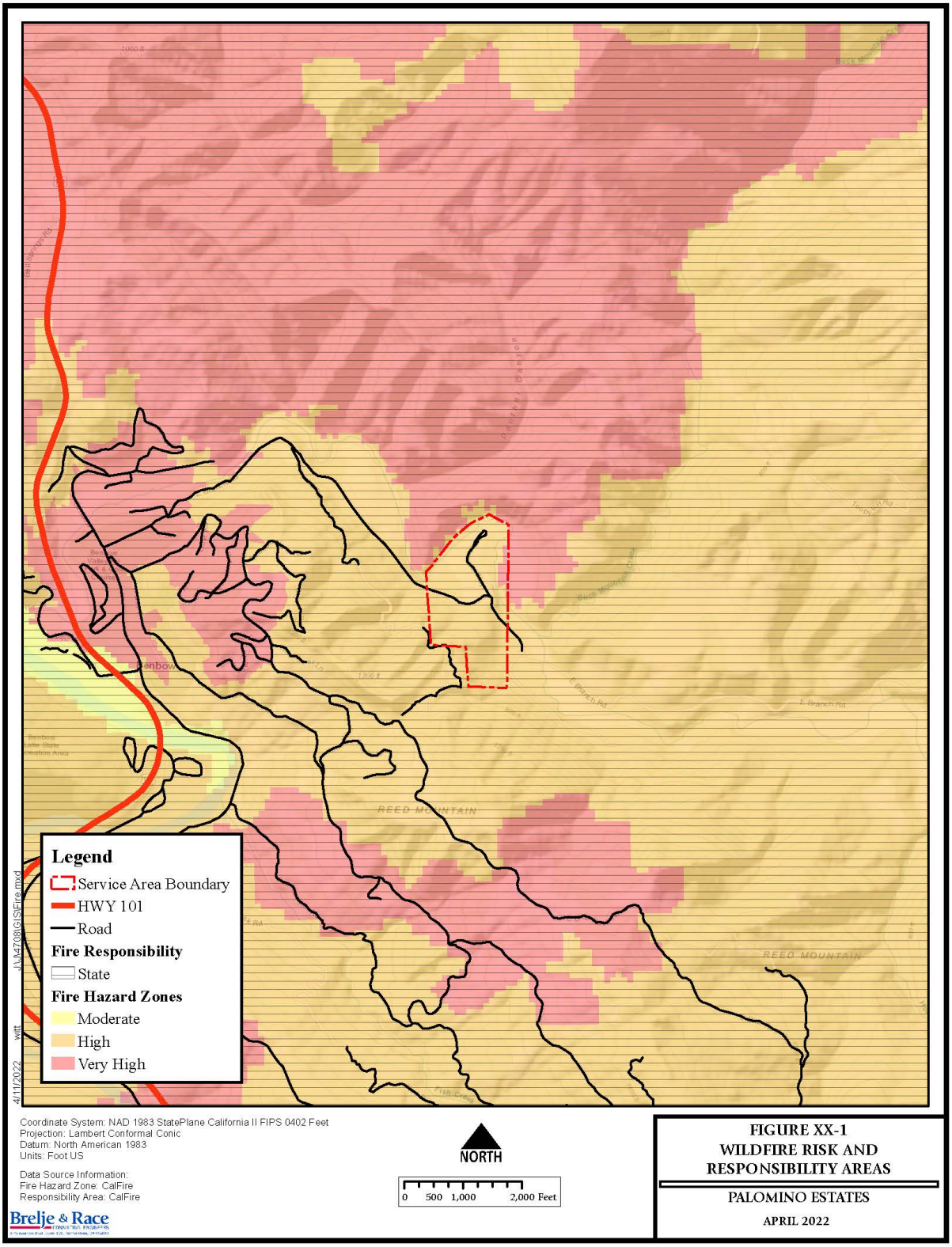


Figure XX-2: Fire Protection Districts

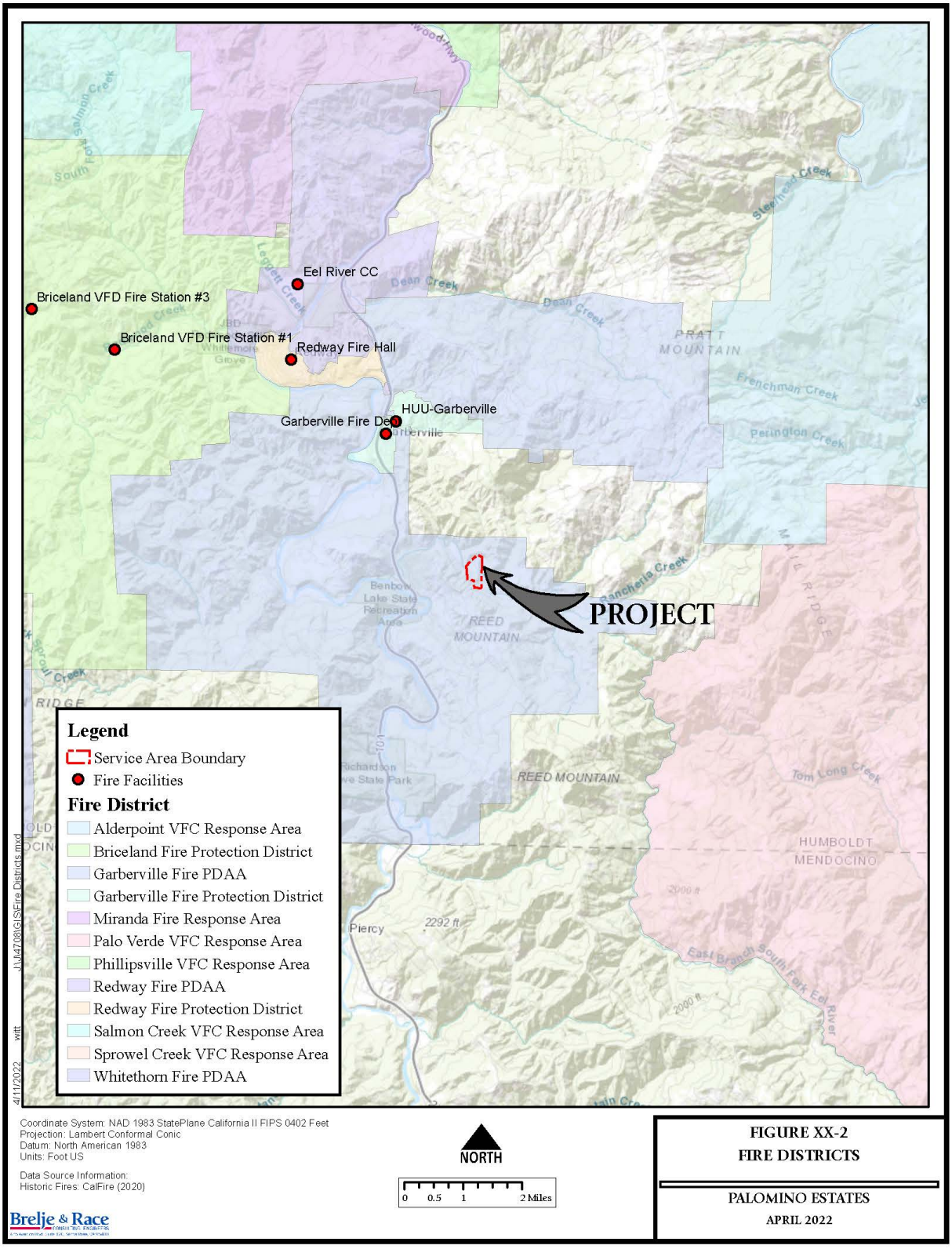
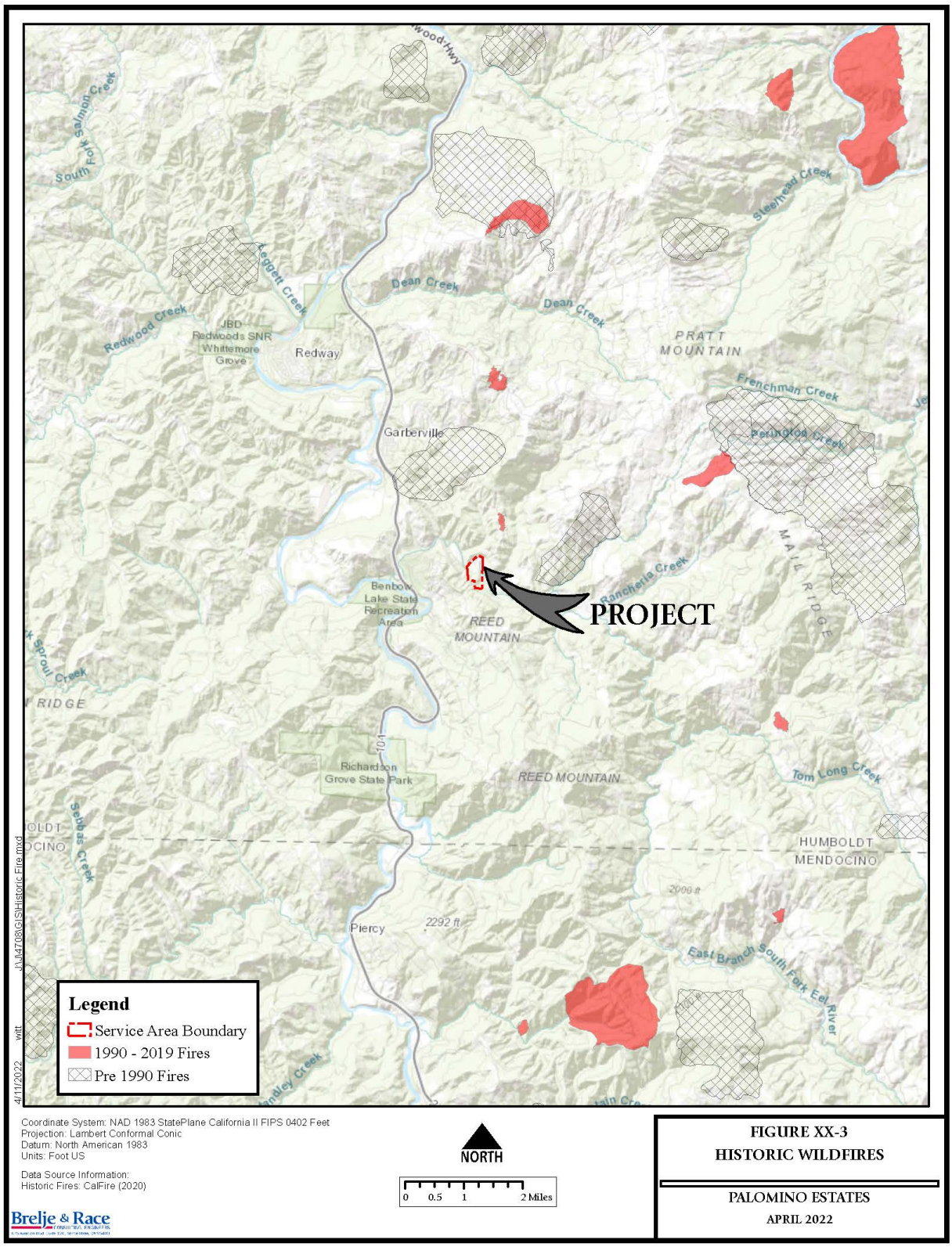


Figure XX-3: Historic Wildfires



Analysis

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

The project would not substantially impair an adopted emergency response plan or emergency evacuation plan. The project would not have any long-term impact to emergency access since roadways would be restored to existing conditions. Construction in roadways could impact emergency response during construction. Mitigation Measure TT2, in the Transportation section, requires the contractor to maintain emergency access and reduces such impact to less than significant.

b. Would the project 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?

The project would modify existing infrastructure, including construction of below ground water mains. The project would not exacerbate wildfire risks. The project would increase firefighting capabilities in the area by installation of fire hydrants and increasing water storage.

c. Would the project 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?

The project would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk. The project would increase firefighting capabilities in the area by installation of fire hydrants and increasing water storage.

d. Would the project 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?

The project would not alter existing risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Cumulative Impacts

There are no adverse cumulative environmental impacts from wildfire resulting from implementation of the proposed project.

Mitigation Measures

Please see Mitigation Measure TT2 contained in the Transportation section.

XXI 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?

With implementation of the mitigation measures provided in this document, the project would not have a significant adverse impact on the habitat of any plant or animal species or historic or prehistoric resources. Furthermore, the project would not substantially degrade the environment or reduce the level of an endangered or otherwise important plant or animal population below self-sustaining levels. Any impact would be considered less than significant with incorporation of the proposed mitigation measures contained in this document.

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

Implementation of the proposed mitigation measures would reduce impacts to less than significant levels. Because no impact is considered to be individually significant and there are no known projects in the area that would compound project impacts, there would be no contribution to a significant cumulative effect. Therefore, any impact would be less than significant with incorporation of the proposed mitigation measures.

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

With implementation of the mitigation measures provided in this document, the project would not be expected to cause substantial adverse effects on human beings either directly or indirectly. Mitigation measures would reduce any such potential to less than significant.

DETERMINATION

On the basis of this initial evaluation:

- □ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ■ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- □ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- □ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- □ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature — *Date*

Bridget Binning — For:

Printed Name — State Water Resources Control Board

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Prepared by:

Justin Witt—Environmental Planner

Gabriel Edwards – Environmental Scientist

Braden Elliott – Environmental Scientist

Wendy Pierce – Senior Environmental Scientist