PROPOSED
MITIGATED NEGATIVE DECLARATION
AND INITIAL STUDY

Hayfork Water Treatment Plant Upgrade Project

Hayfork, California

Prepared for:

Trinity County Waterworks District No. 1
320 Reservoir Road
Hayfork, CA 96041

February 2024
32-76

ENPLAN
3179 Bechelli Lane Suite 100
Redding, CA 96002

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PROPOSED MITIGATED NEGATIVE DECLARATION

LEAD AGENCY:	Trinity County Waterworks District No. 1
PROJECT PROPONENT:	Trinity County Waterworks District No. 1
PROJECT NAME:	**Hayfork Water Treatment Plant Upgrade Project**
PROJECT SUMMARY:	The proposed project includes improvements to the Trinity County Waterworks District No. 1 Water Treatment Plant (WTP). Improvements include constructing a new water treatment building, 600,000-gallon potable clearwell tank, 110,000-gallon backwash storage tank, backwash water recycle pump station, leach field and septic tank, and a potassium permanganate dosing station. Aggregate base would be installed throughout the WTP site to provide access to the new and the existing facilities, and a small parking area would be installed adjacent to the new water treatment building. Additionally, power poles, overhead electrical lines, a ground-mounted transformer, a Supervisory Control and Data Acquisition (SCADA) control system, ~3,415 feet of pipeline, and a new 400 kW emergency back-up generator would be installed at the WTP site, and modifications would be made to the regulation reservoir and existing 500,000-gallon water storage tank. Installation of a new SCADA control system at the WTP site will require SCADA equipment to be updated at the Ewing Pump Station; improvements may include constructing a ~30-foot communications tower adjacent to the Pump Station building or mounting a ~30-foot antenna to the building. The purpose of the proposed project is to repair and replace aging infrastructure, improve fire flows, improve efficiency in the water treatment process, reduce ongoing maintenance costs, and ensure a safe and reliable potable water supply for customers in the District's water service area.
LOCATION:	The project is located within the unincorporated community of Hayfork in Trinity County, generally 13 miles southwest of the community of Douglas City. The project site is located just north of Highway 3, which bisects the community of Hayfork. *See **Figure 1** of the Initial Study.*

Findings / Determination

As documented in the Initial Study, project implementation could result in temporarily increased air emissions, possible impacts on special-status wildlife species, disturbance of nesting birds (if present), loss of trees, possible impacts to wetlands and other waters of the U.S. and/or State, the introduction and spread of noxious weeds during construction, impacts on cultural resources and tribal cultural resources (if present), impacts related to geologic/soils conditions, impacts on paleontological resources, and temporarily increased noise levels.

Design features incorporated into the project would avoid or reduce certain potential environmental impacts, as would compliance with existing regulations and permit conditions. Remaining impacts can be reduced to levels that are less than significant through implementation of the mitigation measures presented in Section 1.10 of the Initial Study. Because the Trinity County Waterworks District No. 1 will adopt mitigation measures as conditions of project approval and will be responsible for ensuring their implementation, it has been determined that the project will not have a significant adverse impact on the environment.

The final Mitigated Negative Declaration was adopted by the Board of Directors of the Trinity County Waterworks District No. 1 on _____, 2024.

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INITIAL STUDY

HAYFORK WATER TREATMENT PLANT UPGRADE PROJECT

TRINITY COUNTY WATERWORKS DISTRICT NO. 1

HAYFORK, CALIFORNIA

LEAD AGENCY:

Trinity County Waterworks District No. 1
320 Reservoir Road
Hayfork, CA 96041
530.628.5449

PREPARED BY:

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February 2024

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SECTION 1.0 INTRODUCTION

1.1 PROJECT SUMMARY

Project Title:	**Hayfork Water Treatment Plant Upgrade Project**
Lead Agency Name and Address:	**Trinity County Waterworks District No. 1** 320 Reservoir Road Hayfork, CA 96041
Contact Person and Phone Number:	**Shane McDonald, Operations Manager** 530.628.5449
Lead Agency's Environmental Consultant:	**ENPLAN** 3179 Bechelli Lane, Suite 100 Redding, CA 96002

The proposed project includes improvements to the Trinity County Waterworks District No. 1 WTP. Improvements include constructing a new water treatment building, including new water treatment system, filtration, and disinfection, 600,000-gallon potable clearwell tank, 110,000-gallon backwash storage tank, backwash water recycle pump station, leach field and septic tank, and a potassium permanganate ($KMnO_4$) dosing station. Aggregate base would be installed throughout the WTP site to provide access to the new and the existing facilities, and a small parking area would be installed adjacent to the new water treatment building.

Power poles, overhead electrical lines, a ground-mounted transformer, a Supervisory Control and Data Acquisition (SCADA) control system, ~3,415 feet of pipeline, and a new 400 kW emergency back-up generator would be installed at the WTP site, and modifications would be made to the regulation reservoir and existing 500,000-gallon water storage tank. Installation of a new SCADA control system at the WTP site will require SCADA equipment to be updated at the Ewing Pump Station; improvements would include either constructing a ~30-foot communications tower adjacent to the Pump Station building or mounting a ~30-foot antenna to the building. For purposes of this Initial Study, "study area" and "project site" shall mean the project's footprint, and includes access roads, staging areas, and areas in which improvements would occur. Details on the proposed improvements are included in Section 3.2 (Project Components/Physical Improvements).

1.2 PURPOSE OF STUDY

The Trinity County Waterworks District No. 1 (District), as Lead Agency, has prepared this Initial Study to provide the general public and interested public agencies with information about the potential environmental impacts of the proposed Hayfork Water Treatment Plant Upgrade Project (project). Details about the proposed project are included in Section 3.0 (Project Description) of this Initial Study.

This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970 (as amended), codified in California Public Resources Code (PRC) §21000 et seq., and the State CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3. Pursuant to these regulations, this Initial Study identifies potentially significant impacts and, where applicable, includes mitigation measures that would reduce all identified environmental impacts to less-than-significant levels. This Initial Study supports a Mitigated Negative Declaration (MND) pursuant to CEQA Guidelines §15070.

The District intends to apply for funding through the State Water Resources Control Board (SWRCB) Drinking Water State Revolving Fund (DWSRF) Program, partially funded by the U.S. Environmental Protection Agency (USEPA). In accordance with the Operating Agreement between the SWRCB and USEPA, and the State Environmental Review Process, this Initial Study has been prepared to address certain federal environmental regulations (federal cross-cutters), including regulations guiding the General Conformity Rule for the Clean Air Act (CAA), the federal Endangered Species Act (FESA), and the National Historic Preservation Act (NHPA). These requirements are addressed in Section 4.3 (Air Quality), Section 4.4 (Biological Resources), and Section 4.5 (Cultural Resources) of this Initial Study.

1.3 EVALUATION TERMINOLOGY

The environmental analysis in Section 4.0 is patterned after the Initial Study Checklist recommended in the State CEQA Guidelines. For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the proposed project. To each question, there are four possible responses:

- **No Impact.** The proposed project will not have any measurable environmental impact on the environment.
- **Less-Than-Significant Impact.** The proposed project has the potential to impact the environment; however, this impact will be below established thresholds of significance.
- **Potentially Significant Impact Unless Mitigation Incorporated.** The proposed project has the potential to generate impacts which may be considered a significant effect on the environment; however, mitigation measures or changes to the proposed project's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- **Potentially Significant Impact**. The proposed project will have significant impacts on the environment, and additional analysis is required to determine if it is feasible to adopt mitigation measures or project alternatives to reduce these impacts to less than significant levels.

1.4 ORGANIZATION OF THE INITIAL STUDY

This document is organized into the following sections:

Section 1.0: **Introduction:** Describes the purpose, contents, and organization of the document and provides a summary of the proposed project.

Section 2.0: **CEQA Determination:** Identifies the determination of whether impacts associated with development of the proposed project are significant, and what, if any, additional environmental documentation may be required.

Section 3.0: **Project Description:** Includes a detailed description of the proposed project.

Section 4.0: **Environmental Impact Analysis (Checklist):** Contains the Environmental Checklist from CEQA Guidelines Appendix G with a discussion of potential environmental effects associated with the proposed project. Mitigation measures, if necessary, are noted following each impact discussion.

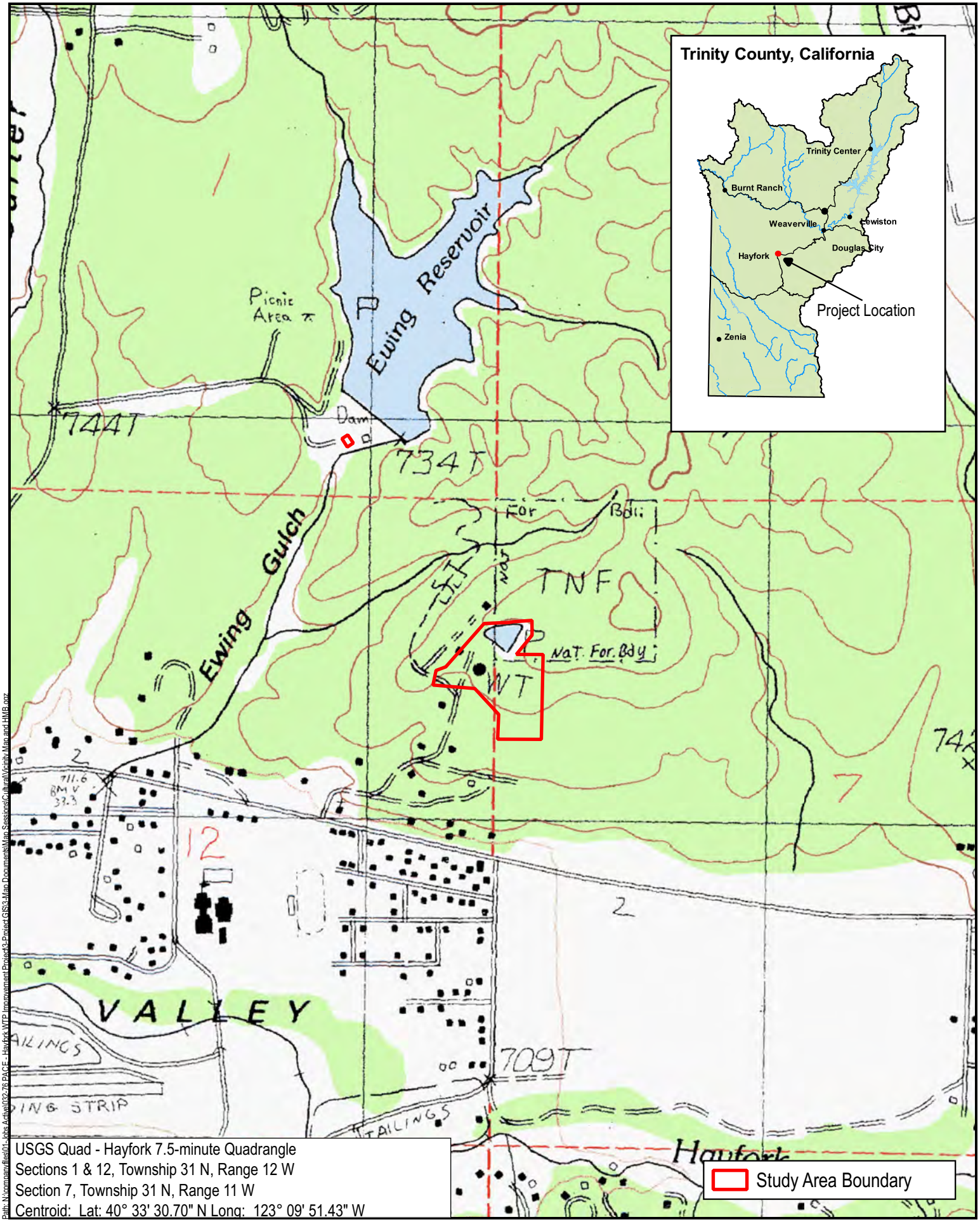
Section 5.0: **List of Preparers**

Section 6.0: **Abbreviations and Acronyms**

Appendices: Contains information to supplement Section 4.0.

1.5 PROJECT LOCATION

As shown in **Figure 1,** Project Location and Vicinity, the proposed project is located in the unincorporated community of Hayfork in Trinity County, in Sections 1 and 12, Township 31 North, Range 12 West; and, Section 7, Township 31 North, Range 11 West of the U.S. Geological Survey (USGS) Hayfork 7.5-minute quadrangle. Latitude 40° 33' 24.50" N; Longitude -123° 09' 46.02" W (centroid). Improvements would occur at the District's Water Treatment Plant (WTP) site, located at the northern end of Reservoir Road (Assessor's Parcel Numbers [APN] 014-330-360, -560, -340, -020, -009 and 017-460-030), and immediately north of the Ewing Pump Station, located south of Ewing Reservoir (APN 014-420-005). Temporary staging of construction materials and equipment would be located at the WTP site and the Ewing Pump Station site, and no physical improvements are needed to establish the staging areas.



USGS Quad - Hayfork 7.5-minute Quadrangle
Sections 1 & 12, Township 31 N, Range 12 W
Section 7, Township 31 N, Range 11 W
Centroid: Lat: 40° 33' 30.70" N Long: 123° 09' 51.43" W

All depictions are approximate. Not a survey product. 04.04.23

0 500 1,000 Feet

Figure 1

Project Location and Vicinity

ENPLAN

Path: N:\company\files\01 - Jobs Active\092-76 PACE - Hayfork WTP Improvement Project\3-Project GIS\3-Map Documents\Map Sessions\Cultural\Vicinity Map and HMB.mxd

1.6 ENVIRONMENTAL SETTING

General Plan Designations:	WTP Site: The majority of the site is designated Public Facility (PF); a portion of the Regulation Reservoir is designated Agricultural (A). Ewing Pump Station: PF
Zoning:	WTP Site: The majority of the site is zoned PF; a portion of the Regulation Reservoir is zoned Agricultural – 40 Acre Minimum (A40). Ewing Pump Station: PF
Surrounding Land Uses:	Land uses surrounding the WTP include forested undeveloped land to the east and northeast and low-density single-family residences to the north, south and west. Land uses surrounding the Ewing Pump Station include Ewing Dam to the northeast, forested undeveloped land to the northwest and southeast, and low-density single-family residences to the south and southwest.
Topography:	Elevations at the WTP site range between ~2,550 feet and ~2,590 feet above sea level. The Ewing Pump Station sits at an elevation of ~2,380 feet above sea level. The WTP site area is characterized by hilly terrain, and the overall topographical gradient slopes steeply downward to the south. The Ewing Pump Station is located at the foot of the Ewing Reservoir dam, with the topographical gradient sloping downward to the southwest.
Plant Communities/Wildlife Habitats:	Habitat types in the study area include pine/oak forest and urban. Representative trees and shrubs include Oregon oak, California black oak, sugar pine, ponderosa pine, gray pine, Douglas-fir, Pacific madrone, hoary manzanita, and common manzanita, interspersed with a variety of annual grasses. The urban community at the WTP and Ewing Pump Station includes existing structures and paved and graveled areas. *See Section 4.4 (Biological Resources)*
Climate:	The study area is characterized by a Mediterranean climate with cool, wet winters and hot, dry summers. The average annual temperature is about 55 degrees Fahrenheit (°F). Monthly mean maximum temperatures range from a high of 93° F in July to a low of 36.5° F in January. Daily high temperatures commonly exceed 90° F during the summer. Precipitation is about 33 inches per year.

1.7 TRIBAL CULTURAL RESOURCES CONSULTATION

Public Resources Code (PRC) §21084.2 (AB 52, 2014) establishes that *"a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment."* Pursuant to PRC §21080.3.1, in order to determine whether a project may have such an effect, a lead agency is required to consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if the tribe requested to be informed through formal notification of proposed projects in the geographical area; and the tribe responds, in writing, within 30 days of receipt of the formal notification and requests the consultation.

According to the District, as of September 1, 2023, no tribes have requested that the District provide formal notification of proposed projects in the geographical area. As discussed in Section 4.5, on January 28, 2022, ENPLAN contacted Native American tribes that were identified by the Native American Heritage Commission (NAHC) with a request to provide comments on the proposed project. The Shasta Indian Nation responded on February 2, 2022, stating that the Shasta Indian Nation has no known cultural resources or sites of interest or concern in the project area. The Bear River Band of the Rohnerville Rancheria responded on February 4, 2022, stating that the project area is outside of their territory.

Follow-up e-mails and telephone calls were placed on July 24, 2023, to the tribal members that were previously identified by the NAHC. The Redding Rancheria responded on August 4, 2023, stating that the project is located in the Trinity area and there is no need to continue consultation with the Redding Rancheria. No other comments or concerns were reported by any Native American representative or organization.

1.8 PERMITS AND APPROVALS

Permits and approvals that may be necessary for construction and operation of the proposed project are identified below.

Trinity County Waterworks District No. 1

- Adoption of a Mitigated Negative Declaration pursuant to CEQA.
- Adoption of a Mitigation Monitoring and Reporting Program for the project that incorporates the mitigation measures identified in this Initial Study.

Trinity County

- Permit for the emergency back-up generator.

State Water Resources Control Board (SWRCB)/North Coast Regional Water Quality Control Board (NCRWQCB):

- Coverage under the NPDES permit for *Discharges of Storm Water Runoff Associated with Construction Activity* (currently Order No. 2022-0057-DWQ, adopted September 8, 2022). Permit coverage may be obtained by submitting a Notice of Intent to the SWRCB. The permitting process requires the development and implementation of an effective Storm Water Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) to reduce pollutants and any additional controls necessary to meet water quality standards.
- If construction dewatering activities result in the direct discharge of relatively pollutant-free wastewater, coverage under NCRWQCB General Order R5-2016-0076-01 (NPDES NO. CAG995002) Waste Discharge Requirements - Limited Threat Discharges to Surface Water. This Order includes specific requirements for monitoring, reporting, and implementing BMPs for construction dewatering activities.
- Construction dewatering activities that are contained on land and do not enter waters of the U.S. are authorized under SWRCB Water Quality Order No. 2003-003-DWQ, provided that the dewatering discharge is of a quality as good as or better than the underlying groundwater, and there is a low risk of nuisance.

State Water Resources Control Board, Division of Drinking Water

- Approval of a Domestic Water Supply Permit amendment pursuant to the California Safe Drinking Water Act, Article 7, Section 116550, for modifications/additions to the water system.

California Office of Historic Preservation, State Historic Preservation Officer (SHPO)

- Due to federal funding for the proposed project, consultation regarding potential impacts to cultural resources is required pursuant to Section 106 of the National Historic Preservation Act (NHPA).

California Department of Forestry and Fire Protection:

- Issuance of a Timberland Conversion Permit and/or approval of a Timber Harvest Plan for tree removal on non-federal lands.

1.9 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by the proposed project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. Impacts to these resources are evaluated using the checklist included in Section 4.0. The proposed project was determined to have a less-than-significant impact or no impact without mitigation on unchecked resource areas.

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

1.10 SUMMARY OF MITIGATION MEASURES

The following mitigation measures are proposed to reduce impacts of the proposed project to less than significant levels.

AIR QUALITY

MM 4.3.1 The following measures shall be implemented throughout construction:

a. All material excavated, stockpiled, or graded shall be covered or sufficiently watered to prevent fugitive dust from leaving property boundaries and causing a public nuisance or a violation of ambient air quality standards. Watering shall occur at least twice daily, preferably in the mid-morning and after work is completed each day, with care given to work sites with bare soil.

b. All areas (other than paved roads) with vehicle traffic shall be watered periodically or have dust palliatives applied for stabilization of dust emissions.

c. All on-site vehicles shall be limited to a speed of 15 miles per hour on unpaved surfaces.

d. All land clearing, grading, earth moving, and excavation activities on the project site shall be suspended when winds are causing excessive dust generation.

e. All trucks hauling dirt, sand, soil, or other loose materials shall be covered or shall maintain at least two feet of free board in accordance with the requirements of Section 23114 of the California Vehicle Code.

f. Paved streets in and adjacent to the construction site shall be swept or washed at the end of the day to remove excessive accumulations of silt and/or mud resulting from activities on the development site.

g. When not in use, motorized construction equipment shall not be left idling for more than five minutes.

MM 4.4.1 To avoid impacts to active bat maternity colonies, tree removal for trees of 12" diameter at breast height (DBG) or higher shall occur only during the following time frames and subject to the following weather conditions, or as otherwise approved/recommended by a qualified bat biologist:

- Between March 1 (or after evening temperatures rise above 45°F, and/or no more than ½" of rainfall within 24 hours occurs), and April 15; and
- Between September 1 and October 15 (or before evening temperatures fall below 45°F, and/or more than ½" of rainfall within 24 hours occurs).

MM 4.4.2 Trees greater than 12" DBH shall be removed using a two-step process to allow bats the opportunity to abandon the roost prior to removal. The two-step removal process shall be as follows:

- Day 1: Remove small-diameter trees, brush, and non-habitat features of large trees (branches without cavities, crevices, or exfoliating bark), using chainsaws for cutting, and chippers wherever possible to cause a level of noise and vibration disturbance sufficient to cause bats to choose not to return to the tree for a few days after they emerge to forage.
- Day 2: Remove the remainder of the trimmed tree.

MM 4.4.3 To prevent impacts to special-status bumble bees, the following steps shall be implemented, in accordance with CDFW guidelines:

a. A qualified biologist shall conduct surveys for special-status bumble bees during the peak months of colony flight season (April to September) prior to the start of construction. Three on-site surveys shall be conducted two to four weeks apart.

b. Bumble bees shall be captured, photographed, and placed in ice coolers for the duration of the survey to ensure that no single bee is photographed twice. Bees shall be released within 100 meters of the capture site after the survey is completed.

c. Species shall be identified where possible, and photographs/habitat information will be submitted to Bumble Bee Watch/California Department of Fish and Wildlife (CDFW) for further investigation.

d. If any special-status bumble bee species are identified on-site, CDFW shall be contacted for further guidance on continuing project implementation with special-status bees present. Potential impacts shall be analyzed, and a Mitigation Plan offsetting said potential impacts shall be developed and submitted to CDFW for approval. Once approved, the Mitigation Plan and included mitigation measures shall be implemented during the construction period.

MM 4.4.4 In order to avoid impacts to nesting birds and raptors protected under the federal Migratory Bird Treaty Act and California Fish and Game Code §3503 and §3503.5, including their nests and eggs, one of the following shall be implemented:

a. Vegetation removal and other ground-disturbance activities associated with construction shall occur between September 1 and January 31 when birds are not nesting; or

b. If vegetation removal or ground disturbance activities occur during the nesting season (February 1 – August 31), a pre-construction nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area.

Surveys shall begin prior to sunrise and continue until vegetation and nests have been sufficiently observed. The survey shall take into account acoustic impacts and line-of-sight disturbances occurring as a result of the project in order to determine a sufficient survey radius to avoid nesting birds. At a minimum, the survey report shall include a

description of the area surveyed, date and time of the survey, ambient conditions, bird species observed in the area, a description of any active nests observed, any evidence of breeding behaviors (e.g., courtship, carrying nest materials or food, etc.), and a description of any outstanding conditions that may have impacted the survey results (e.g., weather conditions, excess noise, the presence of predators, etc.).

The results of the survey shall be submitted electronically to the California Department of Fish and Wildlife at R1CEQARedding@wildlife.ca.gov upon completion. The survey shall be conducted no more than one week prior to the initiation of construction. If construction activities are delayed or suspended for more than one week after the pre-construction survey, the site shall be resurveyed.

If active nests are found, appropriate actions shall be implemented to ensure compliance with the Migratory Bird Treaty Act and California Fish and Game Code. Compliance measures may include, but are not limited to, exclusion buffers, sound-attenuation measures, seasonal work closures based on the known biology and life history of the species identified in the survey, as well as ongoing monitoring by biologists.

MM 4.4.5 All improvements at the Ewing Pump Station site shall be installed outside of the exclusion area shown in Figure 4.4-1 in the Initial Study. Prior to the commencement of construction activities, high-visibility indicators such as marking whiskers, pin flags, stakes with flagging tape, or other markers shall be installed along the outer edges of the construction zone adjacent to the wetland. The marker/flag locations shall be determined by a qualified biologist in consultation with the project engineer and the Trinity County Waterworks District. No construction activities (e.g., clearing, grading, trenching, etc.), including vehicle parking and materials stockpiling, shall occur within the marked/flagged area. The exclusionary markers/flags shall be periodically inspected during construction activities to ensure the markers/flags are properly maintained. The markers/flags shall be removed upon completion of work.

MM 4.4.6 The potential for introduction and spread of noxious weeds shall be avoided/minimized by:

a. Using only certified weed-free erosion control materials, mulch, and seed;

b. Limiting any import or export of fill material to material that is known to be weed free; and

c. Requiring the construction contractor to thoroughly inspect and clean construction equipment prior to entering and upon leaving the job site. All equipment and vehicles shall be washed off-site at a commercial facility when possible. If off-site washing is infeasible, an on-site cleaning station shall be set up at a specified location. Either high-pressure water or air shall be used to clean equipment. The cleaning station shall be located away from sensitive biological resources, and wastewater from the cleaning station shall not be allowed to run off the cleaning station site.

   Construction equipment shall be cleaned of dirt and mud that could contain invasive plants, roots, or seeds; tracks, outriggers, tires, and undercarriages shall be carefully washed, with special attention being paid to axles, frames, cross members, motor mounts, underneath steps, running boards, and front bumper/brush guard assemblies. Other construction vehicles (e.g., pick-up trucks) that will be frequently entering and exiting the site shall be inspected and washed on an as-needed basis.

MM 4.4.7 To prevent the inadvertent entrapment of wildlife, the construction contractor shall ensure that at the end of each workday trenches and other excavations that are over one-foot deep have been backfilled or covered with plywood or other hard material. If backfilling or covering is not feasible, one or more wildlife escape ramps constructed of earth fill or wooden planks shall be installed in the open trench. Pipes shall be inspected for wildlife prior to capping, moving, or placing backfill over the pipes to ensure that animals have not been trapped. If animals have been trapped, they shall be allowed to leave the area unharmed.

CULTURAL

MM 4.5.1 In the event of any inadvertent discovery of cultural resources (i.e., burnt animal bone, midden soils, projectile points or other humanly modified lithics, historic artifacts, etc.), all work within 50 feet of the find shall be halted until a professional archaeologist can evaluate the significance of the find in accordance with PRC §21083.2(g) and §21084.1, and CEQA Guidelines §15064.5(a). If any find is determined to be significant by the archaeologist, the Trinity County Waterworks District No. 1 (District) shall meet with the archaeologist to determine the appropriate course of action. If necessary, a Treatment Plan prepared by an archeologist outlining recovery of the resource, analysis, and reporting of the find shall be prepared. The Treatment Plan shall be reviewed and approved by the District prior to resuming construction.

MM 4.5.2 In the event that human remains are encountered during construction activities, the Trinity County Waterworks District No. 1 shall comply with §15064.5 (e) (1) of the CEQA Guidelines and PRC §7050.5. All project-related ground disturbance within 100 feet of the find shall be halted until the County coroner has been notified. If the coroner determines that the remains are Native American, the coroner will notify the NAHC to identify the most likely descendants of the deceased Native Americans. Project-related ground disturbance in the vicinity of the find shall not resume until the process detailed in §15064.5 (e) has been completed.

GEOLOGY AND SOILS

MM 4.7.1 Prior to approval of the final improvement plans for the project, the Geotechnical Exploration Report prepared by KC Engineering in August 2021 shall be updated as necessary to reflect the final project design. All grading plans and foundation plans shall be reviewed by a qualified professional to ensure that all recommendations included in the final KC Engineering Geotechnical Report are implemented. Applicable notes shall be placed on the attachment sheet to the improvements plans and in applicable project plans and specifications.

If significant engineering design changes occur during construction, the Trinity County Waterworks District shall consult with a qualified geotechnical engineer to identify any geotechnical constraints related to the design changes. Recommendations of the geotechnical engineer shall be implemented as warranted.

MM 4.7.2 Trinity County Waterworks District shall ensure through contractual obligations that earthwork activities are monitored by a qualified professional to ensure that recommendations included in the final KC Engineering Geotechnical Report are implemented.

MM 4.7.3 If paleontological resources (fossils) are discovered during construction, all work within a 50-foot radius of the find shall be halted until a professional paleontologist can evaluate the significance of the find. If any find is determined to be significant by the paleontologist, Trinity County Waterworks District (District) representatives shall meet with the paleontologist to determine the appropriate course of action. If necessary, a Treatment Plan prepared by a paleontologist outlining recovery of the resource, analysis, and reporting of the find shall be prepared. The Treatment Plan shall be reviewed and approved by the District prior to resuming construction.

LAND USE AND PLANNING

Implementation of the Mitigation Measures identified in Section 1.10 (Summary of Mitigation Measures).

NOISE

MM 4.13.1 Construction activities (excluding activities that would result in a safety concern to the public or construction workers) shall be limited to between the daytime hours of 7:00 A.M. and 7:00 P.M., Monday through Saturday. Construction activities shall be prohibited on Sundays and federal/state recognized holidays. Exceptions to these limitations may be approved by the Trinity County Waterworks District No. 1 Operations Manager or his/her designee for activities that require interruption of utility services to allow work during low demand periods, or to alleviate traffic congestion and safety hazards.

MM 4.13.2 Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.

MM 4.13.3 Stationary construction equipment (generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses.

TRIBAL CULTURAL RESOURCES

Implementation of **Mitigation Measures MM 4.5.1 and 4.5.2.**

SECTION 2.0 CEQA 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 has been 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 significant effect(s) 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, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." 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.

Shane McDonald

Shane McDonald
Operations Manager

2/22/2024
Date

SECTION 3.0 PROJECT DESCRIPTION

3.1 PROJECT BACKGROUND, NEED, AND OBJECTIVES

Trinity County Waterworks District No.1 (District) was formed in 1951 for the purpose of operating and maintaining a municipal water system within the community of Hayfork. Water was originally sourced from a diversion on Big Creek, where pumps were installed to divert water from the creek to a regulation reservoir located near the present-day Water Treatment Plant (WTP). In 1958, the domestic water demand exceeded the design capacity of the pump system. In the following years, the water supply from Big Creek was inadequate during low flow periods to supply customers. In 1970, construction of the Ewing Dam was completed to provide sufficient water storage for the growing community. The existing water system was completed at the same time and consists of Ewing Reservoir, Ewing Pump Station, regulation reservoir, an upflow clarifier, a gravity sand filter, and disinfection facilities.

Two 500,000-gallon potable water storage tanks provide water storage for the District, one of which is located at the WTP site. These tanks supply water to two 25,000-gallon potable water storage tanks and one 500-gallon hydropneumatic pressure tank located in the Adkins Pressure Zone and Kyler Pressure Zone, respectively. As of August 2020, the District provides water service to approximately 662 metered connections (552 residential, 66 commercial, 35 industrial, and 9 irrigation accounts).

According to the Preliminary Engineering Report (PER) prepared by PACE Engineering, Inc., the District's existing WTP infrastructure has met the end of its useful service life and is struggling to meet the United States Environmental Protection Agency (USEPA) Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWR). The State Water Resources Control Board (SWRCB) and PACE recommend that the District replace its outdated WTP with an updated treatment system. Therefore, the District proposed improvements to the existing WTP for the following reasons:

Water Treatment Facility

The existing water treatment building contains the upflow clarifier and gravity dual-media filter that are utilized to treat water from the Ewing Reservoir. The existing clarifier is very sensitive to high-temperature flows and is unable to meet Maximum Daily Demand (MDD). Once a year, the District must drain the clarifier to clean and remove build up; the process takes an entire day and District is required to shut down the WTP and issue a Boil Water Notice during this time.

Photo 1. Existing water treatment building and clarifier

Historically, the District has also received multiple taste and odor complaints due to an increase in temperature as well as high turbidity during large storm events. To regulate this, the District adds either a carbon slurry or calcium hypochlorite tablets to the clarifier. However, an overdose of carbon slurry will turn the water black and lead to additional customer complaints. An overdose in calcium hypochlorite can increase the production of disinfection byproducts (DBPs) including total trihalomethanes (TTHM) and haloacetic acids (HAA5).

High turbidity also increases iron and manganese levels within the District's water supply. The existing clarifier and filtration system are not suited to treat and reduce iron and manganese levels. Additionally, the existing clarifier and filtration system are 50 years old and have met the end of their useful service life.

Backwash Storage

Backwash water and waste from the clarifier is currently discharged to the backwash ponds where sludge is allowed to settle. Due to capacity limitations, when the ponds fill, backwash water supernatant overflows the ponds creating a non-permitted discharge. Additionally, the District is unable to recycle backwash water in accordance with Sections 64653.5 and 64654.8 of the California Code of Regulations (CCR) which indicate a supplier can recycle filter backwash water only if the turbidity and rate of flow can be monitored.

Ewing Reservoir

As discussed above, District customers are experiencing offensive tastes and odors in the water they receive from the District. These taste and odor issues occur due to an increase in water temperature that facilitates stratification and algae blooms within the Ewing reservoir. To avoid the layers with taste and odor problems caused by stratification, the water outlet in the reservoir is manually adjusted by District operators. Changing the location of the reservoir outlet requires the operator to physically enter the reservoir in dive gear. However, odor and taste often become unavoidable when the reservoir layers overturn and mix, forcing the District to use chemical or mechanical treatment.

Regulation Reservoir

Water from Ewing Reservoir is pumped to the Regulation Reservoir. Due to the shallow depth of the Regulation Reservoir, algae blooms escalate further, contributing to the taste and odor issues. As such, District operators must take this reservoir off-line at least twice per year for cleaning.

Additionally, the regulation reservoir's drain pipeline is approaching the end of its useful service life and is leaking. The leak disperses some of the surface water into the groundwater when the pond is drained, causing water loss and potential contamination of groundwater.

Photo 2. Regulation Reservoir

Maximum Daily Demand

According to CCR §64554, a water system that serves less than 1,000 service connections must have the storage capacity equal to or greater than MDD unless the system can demonstrate that it has an additional source of supply or an emergency source connection that can meet the MDD requirement. Based on data from January 2004 through August 2020, the District's average daily demand (ADD) is ~0.41 million gallons per day (MGD) and the MDD is 1.3 MGD. The District has only one million gallons of storage, which does not meet MDD requirements.

Fire Flow Requirements

Pursuant to the 2019 California Fire Code, the minimum and maximum fire flow requirements are 1,500 GPM for two hours and 8,000 GPM for four hours, respectively. This equates to needed fire suppression storage between 180,000 and 1,920,000 gallons. According to the District, they typically require 1,000 GPM for two hours for residential property and 1,200 GPM for two hours for certain commercial properties; however, these fire flow requirements have not been updated in some time. In addition, some commercial properties have higher fire flow requirements. The District does not currently have adequate storage to meet fire flow requirements.

Clearwell Water Tank
The 500,000-gallon clearwell water tank is currently 50 years old and is experiencing deterioration such as cracking, delamination, oxidation, and surface corrosion.

The proposed project entails improvement to the District's WTP that are required in order to repair and replace aging infrastructure, improve fire flows, improve efficiency in the water treatment process, reduce ongoing maintenance costs, and ensure a safe and reliable potable water supply for customers in the District's water service area.

3.2 PROJECT COMPONENTS / PHYSICAL IMPROVEMENTS

This section describes the proposed improvements that are the subject of this Initial Study. The identified improvements are based on 90 percent plans, and minor modifications to the project may be made during completion of the final improvement plans; the study area for the project was expansive to allow for flexibility with the engineering design. Improvements are shown in the following figures:

Figure 2 (Plan Sheet C3.0) is the Improvement Site Plan for the project and depicts the locations of existing facilities and the proposed improvements on the WTP site.

Figure 3 (Plan Sheet C4.0) is the Overall Grading Plan for the WTP site.

Figure 4 (Plan Sheet C4.4) includes grading cross sections for the regulation reservoir, new WTP building, and the new clearwell tank and associated improvements.

Figure 5 (Plan Sheet C5.0) is the Piping Plan and identifies the locations of existing water lines and proposed water lines.

Figure 6 (Plan Sheet C6.0) shows proposed improvements to the regulation reservoir.

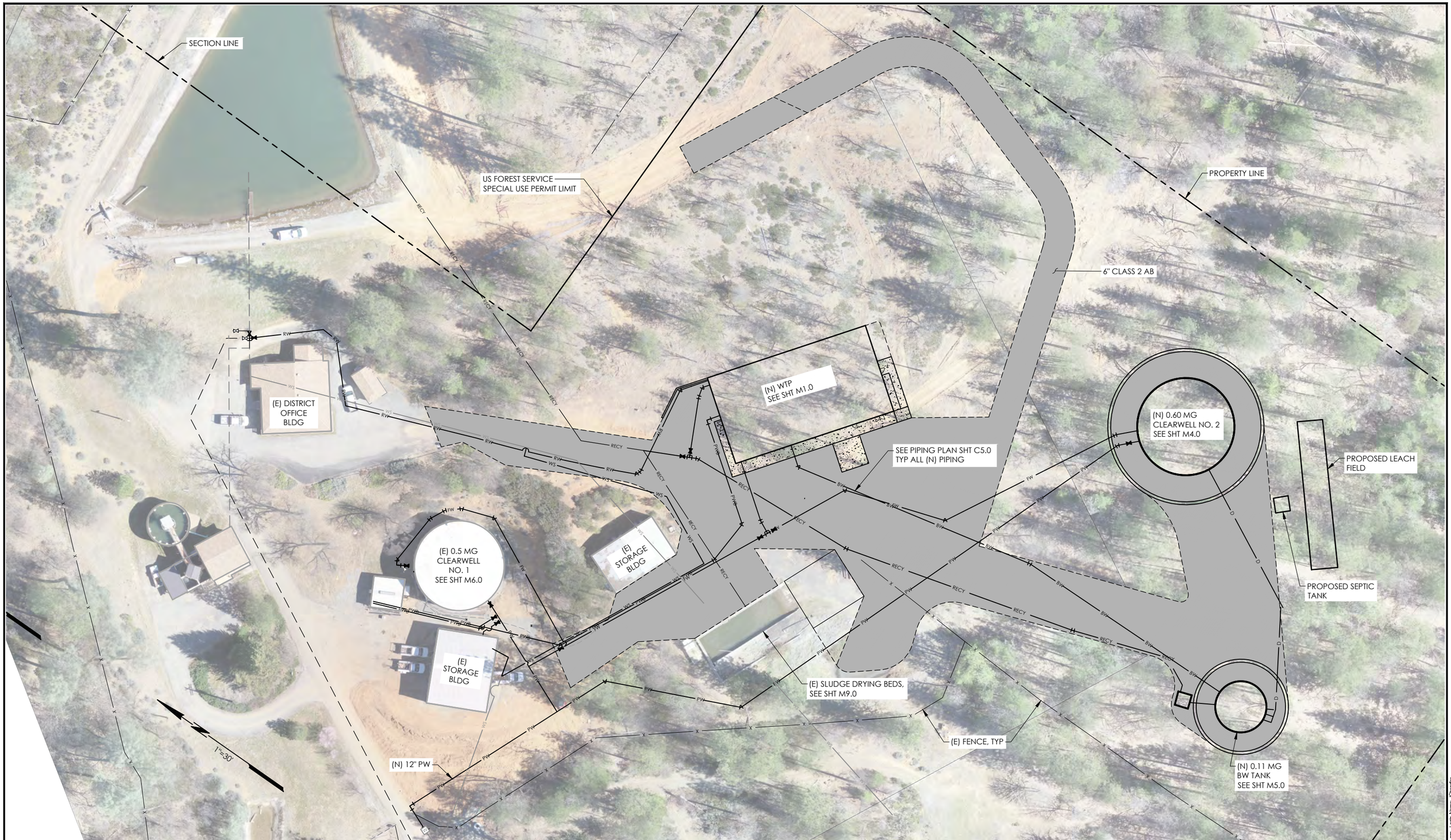
Figure 7 (Plan Sheet E2.1) shows existing and proposed electrical infrastructure on the WTP site.

Proposed improvements include the following:

- Construction of a new ~6,800 square-foot water treatment building generally east of the existing storage building. The new building would be two-story at a height of ~31 feet at the pitch of the roof. The building would include concrete masonry unit (CMU) block walls and a metal roof. (see **Figure 2**)

  The building would house four new packaged WTP systems, two new Granulated Activated Carbon (GAC) filters, coagulant storage and dosing facilities, on-site sodium hypochlorite generation system (brine storage tank, sodium hypochlorite storage tank, and sodium hypochlorite dosing equipment), water quality analyzers, and a new Supervisory Control and Data Acquisition (SCADA) control system.

  The new water treatment building would be located on a sloped surface and construction would require significant excavation; therefore, a retaining wall would be installed on the eastern side of the building and northwest of the building for uphill support. (see **Figures 3 and 4**)
- Drainage improvements include installation of catch basins and storm drain pipes. A drainage swale would be installed along the north side of the building and west of the building. The drainage swale would be lined with riprap (6-12-inch cobbles) to dissipate high flow velocities and prevent downstream erosion. (see **Figures 3, 4, and 5**)
- Installation of a new 400 kW emergency back-up generator on a concrete pad adjacent to the new water treatment building. The generator would be installed in a sound enclosure along with an automatic transfer switch. (see **Figure 7**).



90% SUBMITTAL

BAR IS ONE INCH ON ORIGINAL DRAWING
0" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

REVISIONS

NO	DATE	DESCRIPTION

PACE ENGINEERING

DES	NH	CKD	JC	JOB NO.
DRN	BW	DATE	12/16/2022	0692.04

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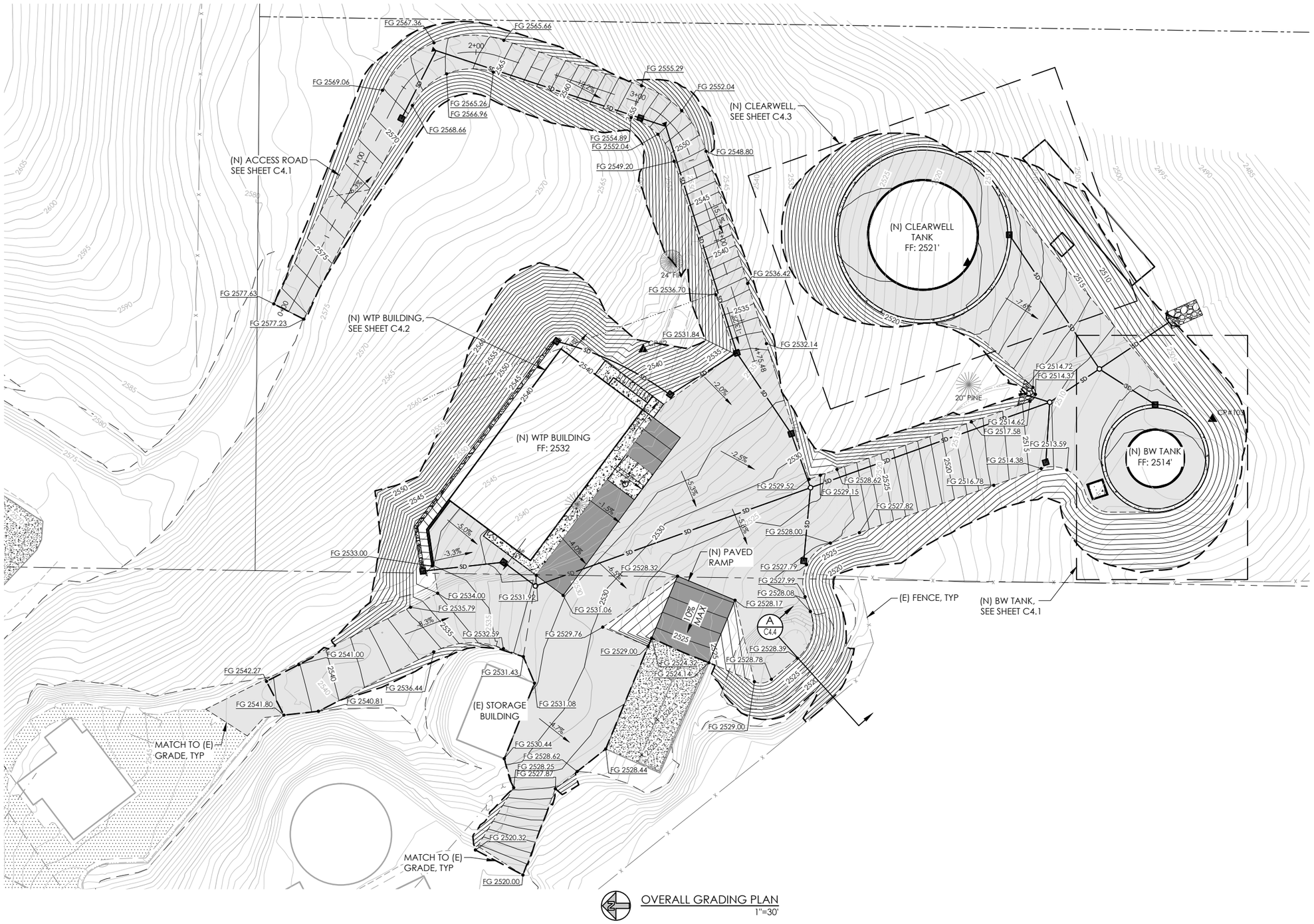
PRELIMINARY NOT FOR CONSTRUCTION

TRINITY COUNTY WATERWORKS DISTRICT NO. 1
WATER TREATMENT PLANT UPGRADE PROJECT

Figure 2
IMPROVEMENT SITE PLAN

SHEET
C3.0
PG 9 OF 100

Plot Date: December 16, 2022 - 6:08 pm Login Name: JChandler
File Name: M:\Land Projects\069204 Trinity County WTP District No. 1 Upgrade Project\DWG\02 - CIVIL\SITE PLAN_IMPROVEMENTS.dwg Layout: IMPROVEMENT SITE PLAN



OVERALL GRADING PLAN
1"=30'

HATCH LEGEND

- (E) CONCRETE
- (N) CONCRETE
- (E) PAVEMENT
- (N) PAVEMENT (3" HMA OVER 8" AB)
- (N) 11" CLS 2 AB
- (N) RIPRAP (6-12" COBBLES)

LINE LEGEND

- (E) EP
- (N) EP
- (E) CONC
- (N) CONC
- PROPERTY LINE
- (E) FLOW LINE
- (N) FLOW LINE
- SD (N) STORM DRAIN
- X (E) FENCE
- TOE OF BANK
- TOP OF BANK
- (N) EDGE OF ROAD

ABBREVIATIONS

AB	AGGREGATE BASE
AD	AREA DRAIN
BOT	BOTTOM
CB	CATCH BASIN
(E)	EXISTING
EG	EXISTING GRADE
EL/ELEV	ELEVATION
FF	FINISH FLOOR
FL	FLOWLINE
FG	FINISH GRADE
FL	FLOWLINE
FP	FINISH PAVEMENT
GB	GRADE BREAK
HMA	HOT MIX ASPHALT
INV	INVERT
LF	LINEAL FEET
(N)	NEW
TC	TOP CONC/CURB
TW	TOP OF WALL

APPROXIMATE GROSS EARTHWORK QUANTITIES (NEAT LINE)

10,500 CY - CUT
8,220 CY - FILL

THESE QUANTITIES ARE BASED ON NEAT LINE CALCULATIONS AND ASSUME A SHRINKAGE OF 20 PERCENT. THE ESTIMATED QUANTITIES ARE FOR BUDGETARY PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR DETERMINATION OF EARTHWORK QUANTITIES.

90% SUBMITTAL

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0" 1"
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REVISIONS

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PACE ENGINEERING

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DRN DP | DATE 12/16/2022 | 0692.04

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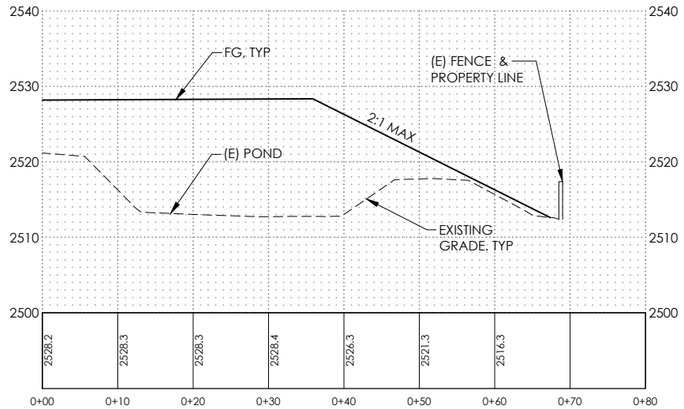
TRINITY COUNTY WATERWORKS DISTRICT NO. 1
WATER TREATMENT PLANT UPGRADE PROJECT

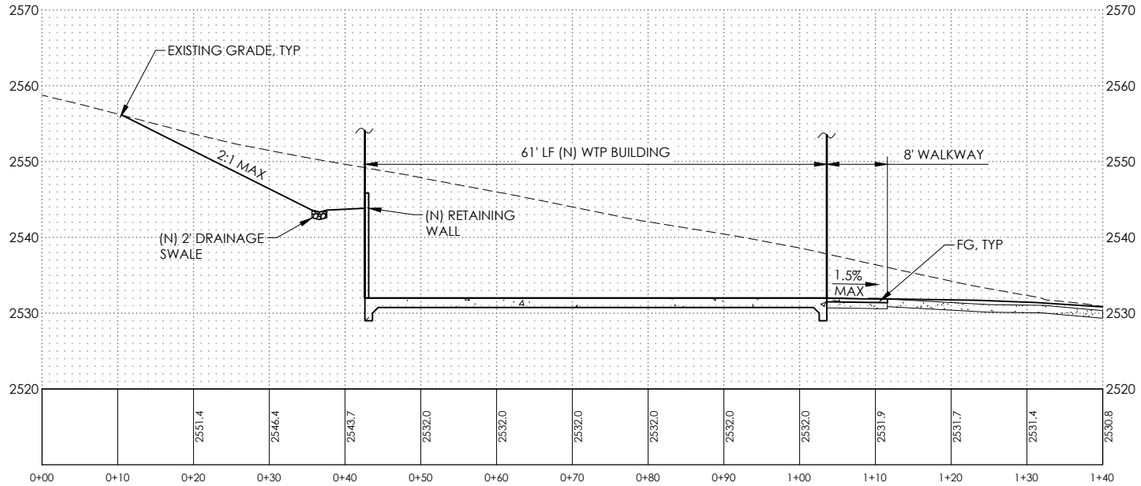
Figure 3
OVERALL GRADING PLAN

SHEET
C4.0
PG 10 OF 100

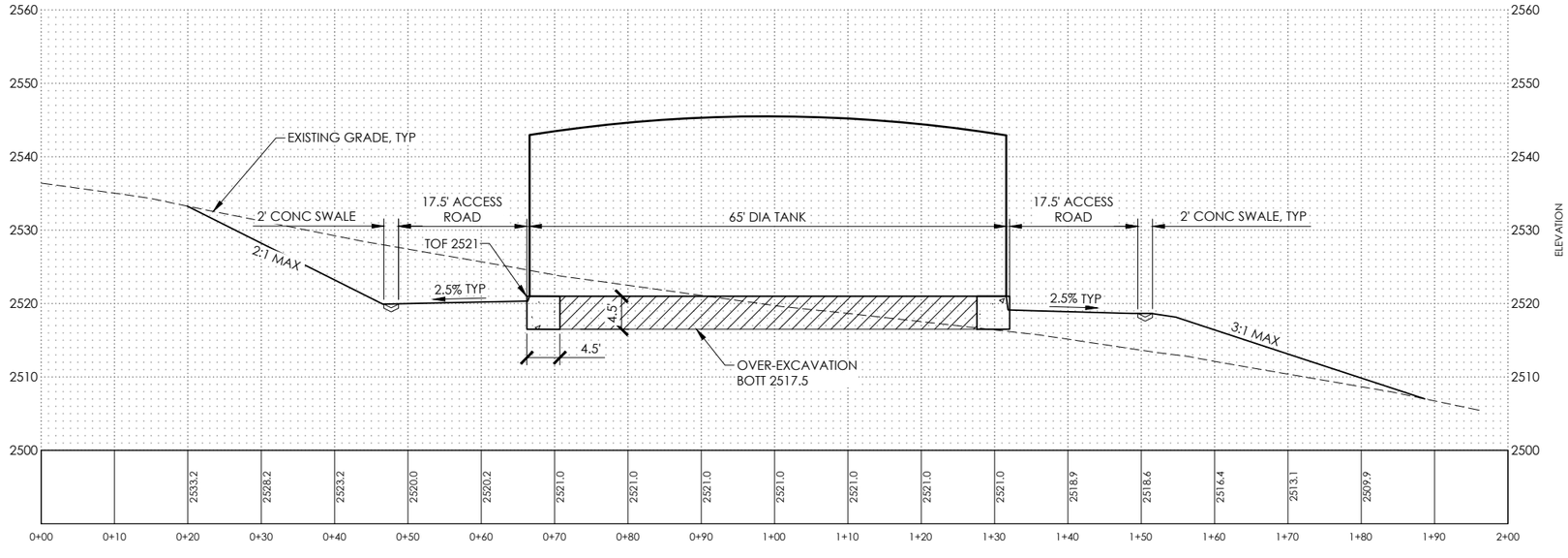
Plot Date: December 16, 2022 - 6:08 pm Login Name: JChandler
File Name: M:\Land Projects\0692.04 Trinity County WTP District No. 1 Upgrade Project\DWG\02 - Civil\GRADING PLAN_NEW WTP.dwg Layout: WTP GRADING PLAN



POND FILL SECTION A C4.4 C4.0
1"=10'



WTP BUILDING SECTION B C4.4 C4.2
1"=10'



CLEARWELL SECTION C C4.4 C4.3
1"=10'

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0" 1"
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REVISIONS		
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TRINITY COUNTY WATERWORKS DISTRICT NO. 1
WATER TREATMENT PLANT UPGRADE PROJECT

Figure 4
GRADING SECTIONS

SHEET
C4.4
PG 14 OF 100

Plot Date: December 16, 2022 - 6:08 pm Login Name: JChandler
File Name: M:\Land Projects\0692\04 Trinity County WTP District No. 1 Upgrade Project\DWG\02 - Civil\GRADING PLAN - PROFILE & SECTIONS.dwg, Layout: WTP SECTIONS

REGULATION RESERVOIR

(N) WTP

(N) 0.6 MG CLEARWELL NO.2

(N) 12" FW TO (N) CLEARWELL SEE SHT C13.0

(N) 10" BW SEE SHT C8.0

(E) 6" RECY

(N) 12" RW SEE SHT C7.0

(N) 12" STL

(E) ¾" IRRIG

(N) 8" PWB

(N) 1" WS, SEE 1/C5.0

(N) 6" RECY SEE SHT C9.0

(N) 0.11 MG BW TANK

(N) 0.11 MG BW TANK

(E) DISTRICT OFFICE BLDG

(E) STORAGE BUILDING

(E) SLUDGE DRYING BED

(E) 8" IRRIG TO TOWN

(N) 12" FW TO (E) CLEARWELL SEE SHT C10.0

(E) 0.5 MG CLEARWELL NO.1

(E) 12" RW

(E) BW PS

(N) 12" PW SEE SHT C12.0

ABANDONED PIPE

(N) 12" PW SEE SHT C11.0

(E) WTP

(E) STORAGE BUILDING

(E) 8" PW

(E) 1" PVC WS

(N) 1" 90° ELB

(E) 8" W

(N) 1" PVC WS

(N) 12" PW

(E) 2" PW

(E) 12" PW

(E) SHARP ROAD

1" = 30'

WS TIE-IN DETAIL 1/C5.0
3/4"=1'0"

NOTES:

1. CONTRACTOR SHALL SUBMIT TO ENGINEER ON A PLAN SET ALL (E) UTILITY INVERT ELEVATIONS AT CROSSINGS AT LEAST SEVEN (7) DAYS PRIOR TO CONSTRUCTION. ENGINEER WILL ADJUST DESIGN GRADE(S) OF PROPOSED (N) UTILITIES. CONTRACTOR SHALL THEN INSTALL (N) UTILITIES AT THE ADJUSTED GRADE(S) PER THE UNIT COST AS INDICATED IN THE PROPOSAL.

90% SUBMITTAL

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0" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

REVISIONS		
NO	DATE	DESCRIPTION

PACE ENGINEERING

DES NH	CKD JC	JOB NO. 0692.04
DRN BW	DATE 12/16/2022	

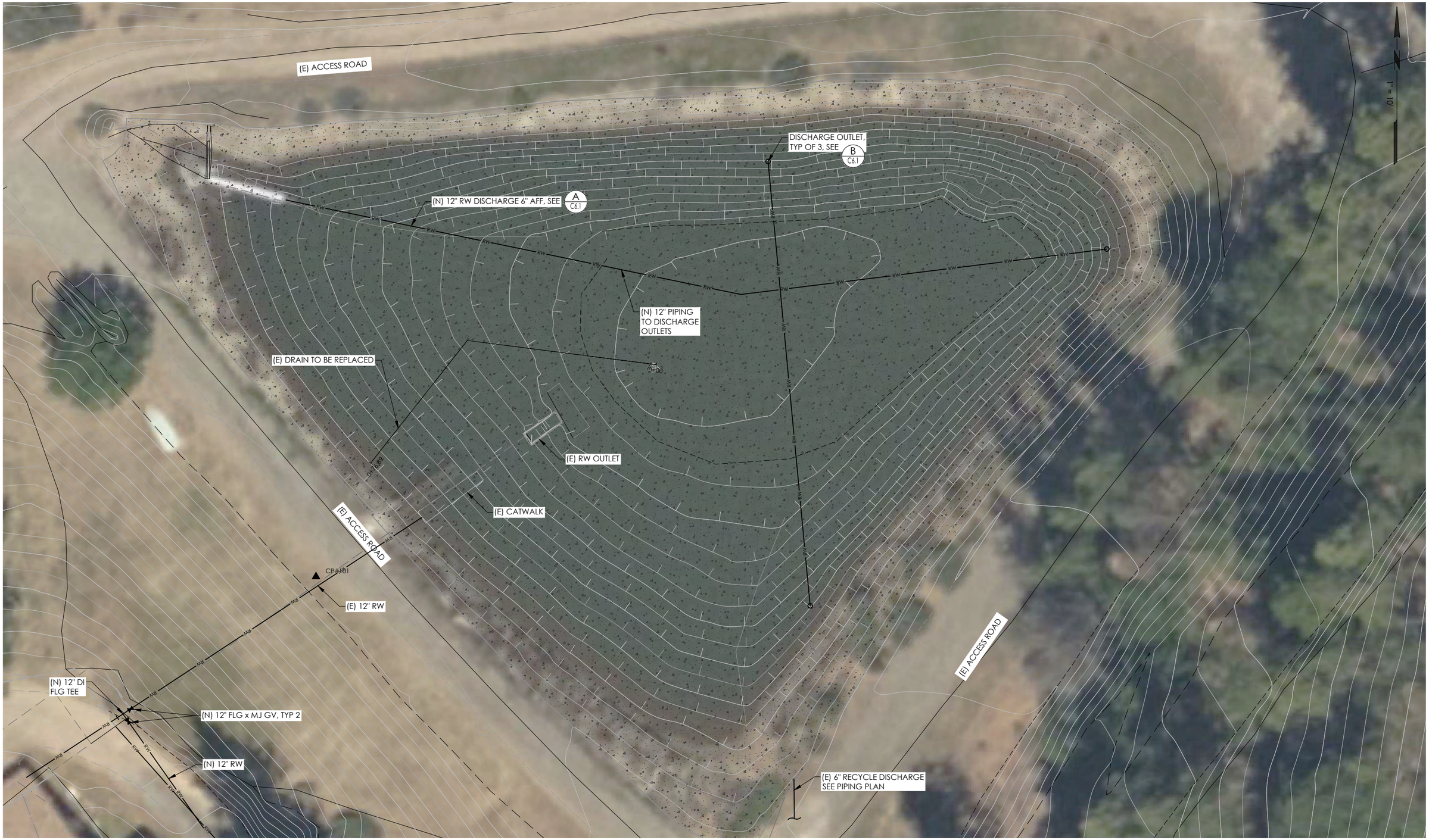
SIGNED
PRELIMINARY NOT FOR CONSTRUCTION

TRINITY COUNTY WATERWORKS DISTRICT NO. 1
WATER TREATMENT PLANT UPGRADE PROJECT

Figure 5
PIPING PLAN

SHEET
C5.0
PG 15 OF 100

Plot Date: December 16, 2022 - 6:08 pm Login Name: JChandler
File Name: M:\Land Projects\0692.04 Trinity County WTP District No. 1 Upgrade Project\DWG\02 - CIVIL\SITE PLAN_IMPROVEMENTS.dwg Layout: PIPING PLAN



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0" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

REVISIONS

NO	DATE	DESCRIPTION

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DES NH	CKD JC	JOB NO. 0692.04
DRN BW	DATE 12/16/2022	

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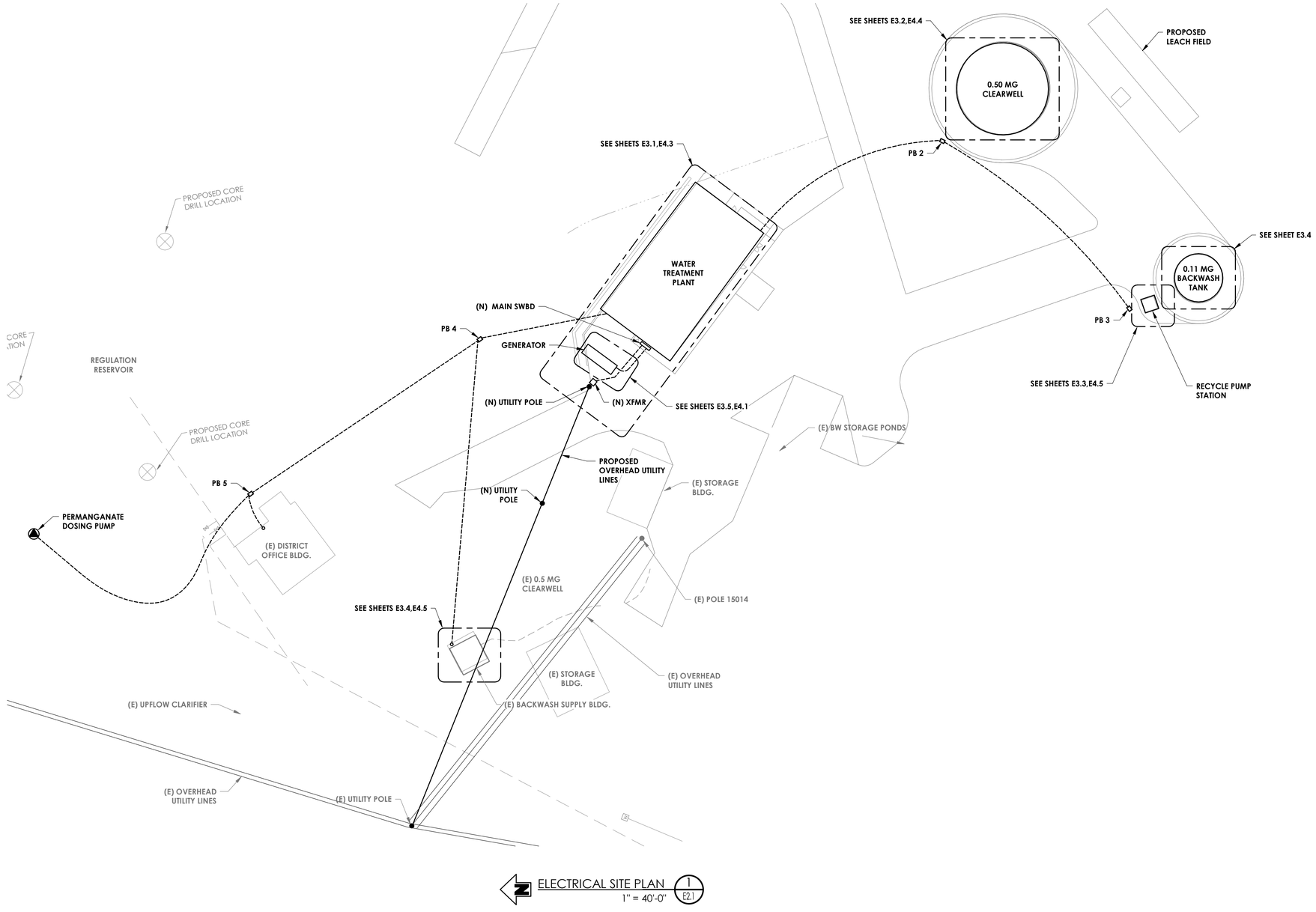
TRINITY COUNTY WATERWORKS DISTRICT NO. 1
WATER TREATMENT PLANT UPGRADE PROJECT

Figure 6
REGULATION RESERVOIR PLAN

SHEET
C6.0
PG 16 OF 100

Plot Date: December 16, 2022 - 8:09 pm Login Name: JChandler
File Name: M:\Land Projects\0692.04 Trinity County WTP District No. 1 Upgrade Project\DWG\02 - CivilSITE PLAN_REG RESERVOIR.dwg Layout: REG RES SITE PLAN



ELECTRICAL SITE PLAN 1 / E2.1
1" = 40'-0"

90% SUBMITTAL

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0" 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO	DATE	DESCRIPTION

PACE® ENGINEERING

DES MC	CKD TB	JOB NO. 0692.04
DRN BW	DATE 12/16/2022	

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PRELIMINARY NOT FOR CONSTRUCTION

TRINITY COUNTY WATER WORKS DISTRICT NO. 1
TREATMENT PLANT UPGRADE PROJECT

Figure 7
ELECTRICAL SITE PLAN

SHEET
E2.1
PG 83 OF 100

12/16/2022 4:28:09 PM

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- Construction of a new 600,000-gallon clearwell tank south of the new water treatment building. The clearwell tank would be ~65 feet in diameter and ~24 feet in height to the overflow (rafters would be ~4.5 feet above the overflow). (see **Figure 2**)
- Construction of a new 110,000-gallon backwash storage tank and ~80 square-foot backwash water recycle pump station just north of the new backwash storage tank. The backwash storage tank would be ~34 feet in diameter and ~16 feet in height to the overflow (rafters are ~3.5 feet above the overflow). (see **Figure 2**)
- Construction of a ~1,745 square-foot leach field and septic tank south of the new clearwell tank. (see **Figure 2**)
- Conversion of the existing backwash ponds to sludge drying beds. (see **Figure 2**)
- Rehabilitation of the existing 500,000-gallon clearwell tank, including replacement of the coating on the interior and exterior of the tank and the installation of a new manway, roof vent, roof hatch, and guardrail.
- Modifications to the existing regulation reservoir to improve aeration within the reservoir. Modifications include replacement and relocation of the existing drain, and installation of new 12-inch-diameter discharge piping. (see **Figure 6**)
- A potassium permanganate ($KMnO_4$) dosing station for emergency use would be constructed adjacent to the regulation reservoir to minimize taste and odor issues resulting from algae blooms and stratification of water in the reservoir. (see **Figure 7**)
- Installation of ~3,415 feet of pipeline at the WTP including a new 12-inch raw water pipe from the regulation reservoir to the new WTP building; 12-inch filtered water pipes from the new WTP building to the existing and new clearwell tanks; 12-inch potable water pipes from the existing and new clearwell tanks to an existing waterline south of the existing storage building in Reservoir Road; 10-inch backwash pipes from the new WTP building to the new backwash tank; 6-inch recycled water pipes from the new recycle pump station to the existing regulation reservoir; and 1-inch water service from the existing district office buildings to the existing storage building. (see **Figure 5**)
- Installation of an overhead electrical line extending from an existing power pole at the WTP on the west side of Reservoir Road to the new water treatment building. This would require installation of about two new power poles west of the new WTP building and a new ground-mounted transformer. (see **Figure 7**)
- Installation of aggregate base throughout the WTP site to provide access to new and existing facilities. (see **Figures 2 and 4**)
- Installation of a paved parking area adjacent to the new WTP building and a new paved ramp adjacent to the existing sludge drying bed. (see **Figure 4**)
- Installation of a new SCADA control system at the WTP will require SCADA equipment to be updated at the Ewing Pump Station. This would include constructing a ~30-foot communications tower adjacent to the Pump Station building or mounting a ~30-foot antenna to the building.
- Acquisition of a new portable generator for the Ewing Pump Station; the generator would be stored at the WTP and transported to the pump station when needed. The existing manual transfer switch and j-plug on the exterior of the Ewing Pump Station may be updated to facilitate use of the generator.

Other Considerations

Geotechnical Study

Construction activities would be conducted in accordance with the conclusions and recommendations included in the Geotechnical Exploration Report prepared for the proposed project by KC Engineering Company on August 21, 2021. The purpose of the geotechnical study was to evaluate the surface and subsurface soil conditions at the project site and identify geotechnical criteria for site clearing and grading, design of foundations, installation of pavement,

drainage facilities, and other related improvements. The study included site reconnaissance, drilling and logging of exploratory borings, sampling of the subsurface soils, and laboratory testing of the soil samples.

Clearing, Grading, and Erosion Control

To facilitate construction of the WTP improvements, the surface of the areas to be graded (see **Figure 3**) would be stripped to remove all existing vegetation, trees, tree roots, bushes, and/or other deleterious materials. Any areas where loose or soft soils are encountered will be excavated to undisturbed native ground. Excavated soil materials may be used as engineered fill with the approval of the Soils Engineer, provided that they do not contain debris, excessive organics, or over-sized rocks or boulders. Any existing undesirable items encountered on site that do not meet the requirements for engineered fill (e.g., fence posts/wood, tree roots, concrete rubble, buried pipes, etc.) will be excavated and removed.

Building pads for the new buildings and tanks would be excavated into the adjacent hillside slopes (see **Figures 3 and 4**). The structures will be supported by native materials and not founded on partial cuts and fill transition pads. Should transition pads be necessary, the native or cut portion of the pad should be over-excavated below the bottom of the structure footing.

As discussed above, aggregate base would be installed throughout the WTP site to provide access to new and existing facilities. Cut and fill grading will be required for the proposed access roads. Prior to placement of fill slopes and after stripping of vegetation, a toe of slope keyway must be constructed into competent soil materials prior to placement of engineered fill as required by the California Building Code (CBC). After completion of grading, erosion control would be installed on all exposed surfaces of cut and fill slopes by hydro-seeding and/or slope planting, preferably with deep-rooted native plants requiring little to no irrigation. Utility trenches would be backfilled with native or approved import material and compacted as recommended in the geotechnical study.

Tree Removal

The area at the WTP site in which improvements would occur (i.e., construction of the WTP building, backwash storage tank, backwash tank, clearwell tank, and associated improvements) currently includes approximately 256 trees that would need to be removed. Tree species that would be removed include Oregon oak, California black oak, sugar pine, ponderosa pine, gray pine, and Douglas-fir. As further discussed in Section 4.2 (Agriculture and Forest Resources) and Section 4.4 (Biological Resources), up to ~2.8 acres of forest land/oak woodland would be converted.

Access and Staging

Access to the WTP site would be from a paved private road, Reservoir Road, and access to the Ewing Pump Station would be from a paved public road, Ewing Road. Temporary staging of construction equipment and materials would occur within the boundaries of the WTP site and at the Ewing Pump Station.

Construction Considerations

It is anticipated that construction would commence in May 2025 and be completed by November 2026; however, proposed improvements may be phased based on the availability of funding and/or supply chain issues.

SECTION 4.0 ENVIRONMENTAL IMPACT ANALYSIS

4.1 AESTHETICS

Except as provided in Public Resources Code §21099 (Transit-Oriented Infill Projects), would the project:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	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 non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

REGULATORY CONTEXT

There are no federal regulations pertaining to aesthetics that apply to the proposed project.

STATE

California Building Standards Code

The California Building Standards Code (CBSC) (CCR Title 24) is based on the International Building Code used widely throughout the country. Part 11 of the CBSC is the Green Building Code (CALGreen). CALGreen §5.106.8 includes mandatory light pollution reduction measures for non-residential uses. The intent of the measures is to maintain dark skies and to ensure that newly constructed projects reduce the amount of backlight, uplight, and glare (BUG). In addition, §130.2(c) of the California Energy Code (CEC) (CBSC Part 6) requires that all outdoor lighting for new non-residential uses must be controlled with a photocontrol, astronomical time-switch control, or other control capable of automatically shutting off the outdoor lighting when daylight is available, thereby minimizing the potential for glare during the daytime. In addition, automatic scheduling controls must be installed for all outdoor lighting and must be capable of reducing lighting power by at least 50 percent and no more than 90 percent and must be separately capable of turning the lighting off during scheduled unoccupied periods.

California Scenic Highway Program

The California Scenic Highway Program, administered by the California Department of Transportation (Caltrans), was established in 1963 to preserve and protect the natural beauty of scenic highway corridors in the State. The Scenic Highway System includes a list of highways that have been designated as scenic highways as well as a list of highways that are eligible for designation as scenic highways. Local jurisdictions can nominate scenic highways for official designation by identifying and defining the scenic corridor of the highway and adopting a Corridor Protection Program that includes measures that strictly limit development and control outdoor advertising along the scenic corridor.

LOCAL

Trinity County General Plan, Open Space and Conservation Element

The Open Space and Conservation Element of the County's General Plan was adopted in 1973 to preserve and protect the prime forest lands and the limited agricultural lands of Trinity County; and to conserve the land resources of Trinity County and to protect water resources. The following Objectives and Recommendations apply to the proposed project:

Trinity County General Plan – Open Space and Conservation Element	
Objectives:	To conserve, preserve, and maintain the scenic beauty of Trinity County.
	To protect the scenic natural resources of Trinity County and preserve areas which are important as commercial natural resources for future generations.
	To retain the character and natural beauty of Trinity County with the preservation of existing open space and the control of open space.
Recommendations:	Encourage private developers to utilize conservation methods or using or developing the land. Discourage development on steep slopes unless special techniques of construction are used.
	Control encroachment of cut and fill slopes into scenic easement areas or corridors along scenic highways, whether State or County
	Preserve areas of established natural scenic beauty as areas of active and passive enjoyment.

Trinity County, Hayfork Community Plan

The 1996 Hayfork Community Plan provides a framework to guide development of public and private projects in the Hayfork area. The plan has been designed to meet the particular needs of the Hayfork area while also being consistent with the goals and objectives of the County's General Plan. The Hayfork Community Plan includes the following Goal, Objectives, and Policies that apply to the proposed project:

Hayfork Community Plan – Natural Resource		
Objective:	3.2	Protect the aesthetic and cultural resources of the Plan Area.
Policy:	3.2a	Encourage public and private land managers to consider potential impacts to the viewshed around the Hayfork Basin while managing timberlands.
Hayfork Community Plan – Community Design		
Goal:	2	Enhance the natural elements that contribute to the aesthetic values and cultural identity of the community.
Objective:	2.1	Utilize features of the natural environment in the design and landscaping of land uses whenever possible.
Policy:	2.1a	Preserve existing trees within the community and encourage land managers in the Hayfork basin to protect viewsheds when conducting timber harvest and other ground disturbing activities visible from the community.

DISCUSSION OF IMPACTS

Questions A and C

Scenic vistas are defined as expansive views of highly valued landscapes from publicly accessible viewpoints (e.g., public roadways, parks and recreation areas, publicly accessible open space areas, and other public gathering places). Scenic vistas include views of natural features such as mountains, hills, valleys, water courses, outcrops, and natural vegetation, as well as man-made scenic structures. The Trinity County General Plan identifies "scenic land" as land designated on the local open space plan as an area that possesses outstanding scenic qualities worthy of preservation. There are no areas in proximity to the project site that are designated as scenic land on the open space plan. Scenic resources in the study area include Hayfork Valley, forested hillsides that surround the community, mountains, trees and other vegetation, and open space.

Existing improvements on the WTP site are shown in **Photo 4.1-1**. **Photo 4.1-2** shows the entrance to the WTP from Reservoir Road.

Photo 4.1-1. Existing Water Treatment Plant Facilities

The WTP site is located at the northern end of Reservoir Road (**Photo 4.1.2**), a private road that provides access to privately owned residential properties and to the WTP. The nearest publicly accessible viewpoint to the WTP is Highway 3, ~0.25 miles to the south.

Proposed improvements on the WTP property that have a potential to change the existing visual character of the area include the removal of trees and other vegetation to accommodate the proposed improvements, the new water treatment building, 110,000-gallon backwash storage tank, 600,000-gallon clearwell tank, ~80 square-foot backwash water recycle pump station, power poles, and overhead electrical lines (see **Figures 2 and 3**). These improvements are compatible with existing facilities on the WTP property (see **Photo 4.1-1**).

Improvements at the WTP site would be visible to travelers on Reservoir Road near the entrance to the WTP and to individuals working at and visiting the WTP. Improvements would also be visible from adjacent properties. Although a significant number of trees would be removed to facilitate construction of the WTP improvements, trees and other vegetation exist along roadways and on adjacent properties in the project area. These trees and intervening topography impede views of the WTP site from the surrounding area and from Highway 3.

Photo 4.1-2. Entrance to Water Treatment Plant Facilities

The Ewing Pump Station is shown in **Photo 4.1-3**. Improvements at the Ewing Pump Station would consist of a ~30-foot-tall antenna mounted to the building or a ~30-foot-tall communications tower. The Ewing Pump Station is located at the foot of the Ewing Reservoir in a valley-like depression between two hills. Although there are publicly accessible trails in the area, the antenna would be consistent with utility poles and overhead utility lines adjacent to the pump station and would not be a prominent visual feature in the area.

Photo 4.1-3. Ewing Pump Station Site.

The proposed project would have short-term visual impacts during construction due to clearing, trenching, and staging of construction equipment and materials. However, this is a temporary impact and would cease when the project is complete.

Therefore, because impacts during construction are temporary and would cease at completion of the project and proposed improvements would have limited visibility from public viewpoints, the project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. Impacts would ***be less than significant***.

Question B

There are no currently designated State Scenic Highways in Trinity County. Although Highway 3 is currently eligible for scenic highway designated, as discussed under Question A and C above, the project site is not visible from Highway 3. Therefore, there would be ***no impact***.

Question D

The proposed project may include the installation of security lighting at the water treatment building, water storage tank, and backwash storage tank. New permanent lighting must comply with CALGreen light pollution reduction measures for non-residential uses as described under Regulatory Context. The intent of the measures is to maintain dark skies and to ensure that newly constructed projects reduce the amount of backlight, uplight, and glare (BUG). Further, the water treatment building and tanks would be shielded from adjacent properties by existing structures and vegetation.

Temporary lighting is not expected to be used during project construction. However, as discussed in Section 4.13 (Noise), construction hours are limited to between 7:00 A.M. and 7:00 P.M., Monday through Saturday. Construction lighting would be needed only a couple of hours a day at certain times of the year. Therefore, construction lighting is not expected to significantly impact motorists or nearby residents.

Compliance with existing requirements ensures that impacts associated with light and glare would be ***less than significant*** and the proposed project would not adversely affect day or nighttime views in the area.

CUMULATIVE IMPACTS

Potential cumulative projects in the area include growth according to the build-out projections in the County's General Plan. As documented above, the proposed project does not include any features that would have an adverse effect on a scenic vista or substantially degrade the existing visual character or quality of public views of the site and its surroundings.

Project-related lighting would include new security lighting and limited construction lighting. The new light sources would be confined to the premises and construction lighting would be temporary in nature and cease at the completion of construction. Therefore, the proposed project's aesthetic impacts would not be cumulatively considerable.

MITIGATION

None necessary.

DOCUMENTATION

California Department of Transportation. 2019. California Highway System Map. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed April 2023.

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4.2 AGRICULTURE AND FOREST RESOURCES

Would the project:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g)) or result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐
d. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒

REGULATORY CONTEXT

There are no federal regulations pertaining to agriculture or forest resources that apply to the proposed project.

STATE

California Farmland Mapping and Monitoring Program (FMMP)

The FMMP was established in 1982 to provide data to decision makers to assist them in making informed decisions for the best utilization of California's farmland. Under the FMMP, the Department of Conservation (DOC) is responsible for mapping, monitoring, and reporting on the conversion of the State's farmland to and from agricultural use. Important Farmland Maps are updated and released every two years. The following mapping categories, which are determined based on soil qualities and land use information, are included in the FMMP: prime farmland, farmland of statewide importance, unique farmland, farmland of local importance, grazing land, urban and built-up land, other land, and water.

Williamson Act

The Williamson Act (California Land Conservation Act of 1965) was enacted as a means to protect agricultural uses in the State. Under the Williamson Act, local governments can enter into contracts with private landowners to ensure that specific parcels are restricted to agricultural and related open space uses. In return, landowners receive reduced property tax assessments. The minimum term for a Williamson Act contract is ten years, and the contract is automatically renewed for one-year terms unless the landowner files a notice of nonrenewal or a petition for cancellation.

Forest Land and Timberland

PRC §12220(g) defines Forest Land as *"land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits."* PRC §4526 defines timberland as *"land, other than land owned by the federal*

government, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees." Government Code §51104(g) defines Timberland Production Zone as *"an area which has been zoned pursuant to [Government Code] §51112 or §51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h)."*

LOCAL

Trinity County General Plan, Open Space and Conservation Element

The Open Space and Conservation Element of the County's General Plan was adopted in 1973 to preserve and protect the prime forest lands and the limited agricultural lands of Trinity County; and to conserve the land resources of Trinity County and to protect water resources as well. The following Objective and Recommendations apply to the proposed project:

Trinity County General Plan – Open Space and Conservation Element	
Objective:	To preserve and protect crop lands and commercial forest lands as an important part of the economy of the County and as a resource of the County.
Recommendations:	Protect crop lands wherever possible and only those uses related to agriculture should be located in the crop land areas.
	Agricultural uses including crop lands, cattle raising, and forest lands should be encouraged and protected as a means to continue providing open space.
	Agricultural lands which are used for grazing and other purposes, although not considered prime soils, should be given every protection and consideration.
	Agricultural land, although not considered prime, in Trinity County must be recognized as an equal to other major land uses and given the protection it deserves as a developed use.
	Continue to promote a program of agricultural land preservation to assure continuance of this resource in the limited areas of the County.

Trinity County, Hayfork Community Plan

The 1996 Hayfork Community Plan provides a framework to guide development of public and private projects in the Hayfork area. The plan has been designed to meet the particular needs of the Hayfork area while also being consistent with the goals and objectives of the County's General Plan. The Hayfork Community Plan includes the following Goal and Objectives that apply to the proposed project:

Hayfork Community Plan – Natural Resource		
Goal:	1	Preserve and maintain open space and natural resource areas to enhance agricultural and timber resource capabilities and protect the rural nature of Hayfork Valley.
Objectives:	1.1	Protect agricultural capabilities in the Hayfork Plan Area.
	1.2	Protect timber resources of the Hayfork Area.

DISCUSSION OF IMPACTS

Questions A, B, and D

According to the *Important Farmland in California* map (California Department of Conservation [DOC], 2022), the project area was not surveyed for inclusion in the FMMP. Section 21060.1(b) of the California Environmental Quality Act states *"In those areas of the state where lands have not been*

surveyed… 'agricultural land' means land that meets the requirements of "prime agricultural land" as defined in paragraph (1), (2), (3), or (4) of subdivision (c) of Section 51201 of the Government Code." "Prime agricultural land" means any of the following:

(1) All land that qualifies for rating as class I or class II in the Natural Resource Conservation Service land use capability classifications.

(2) Land which qualifies for rating 80 through 100 in the Storie Index Rating.

(3) Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per month (AUM) as defined by the United States Department of Agriculture.

(4) Land planted with fruit- or nut-bearing trees, vines, bushes, or crops which have a nonbearing period of less than five years and which will normally return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than two hundred dollars ($200) per acre.

The LCC indicates the suitability of soils for most kinds of crops. Soils are rated from Class I to Class VIII, with soils having the fewest limitations receiving the highest rating (Class I). The LCC also includes capability subclasses, which are soil groups that identify soil limitations that interfere with plant growth or cultivation. The subclasses are designated by the letters e (erosion), w (water), s (rooting zone issues), or c (very cold or very dry climate). The Storie Index provides a numeric rating (based upon a 100-point scale) of the relative degree of suitability or value of a given soil for intensive agriculture. The rating is based upon the character of the soil profile, surface texture, steepness of the slope, drainage, alkalinity, fertility, wind and water erosion, acidity, and microrelief.

A review of the U.S. Department of Agriculture, Natural Resources Conservation Service records (USDA, 2023) identified two soil types in the study area boundary for the WTP site: Crefork-Musserhill complex, 30 to 50 percent slopes, and Hoosimbim gravelly loam, 30 to 50 percent slopes; and one soil type at the Ewing Pump Station site: Carrcreek gravelly loam, 0 to 2 percent slopes. The majority of the work, including all improvements at the WTP site, would occur in areas with Hoosimbim gravelly loam soils.

According to the NRCS, Hoosimbim gravelly loam is not designated as Prime Farmland. The LCC rating for the Hoosimbim gravelly loam is 6, indicating that the soil is generally unsuitable for cultivation and that its use is limited mainly to pasture, rangeland, forestland, and wildlife habitat. The Storie Index for the Hoosimbim gravelly loam is 33 (Grade 4), indicating that its potential for irrigated agriculture is poor. Further, the land has not been used as grazing land, is not planted with fruit- or nut-bearing trees, vines, bushed, or crops, and has not historically been used for the production of agricultural plant products.

According to the County's Zoning Map (Trinity County 2023b), the majority of improvements would occur on District property zoned Public Facility (PF). A portion of the existing regulation reservoir is zoned Agricultural – 40 Acre Minimum (A40); however, the proposed project does not include any components that would interfere with or preclude future agricultural uses in the area. Although properties in the area may be suitable for agricultural uses, there are no known commercial-scale agricultural uses in the area. In addition, no properties in the project area are subject to a Williamson Act contract (Trinity County, 2023a).

Because the proposed project would not directly or indirectly convert farmland to non-agricultural uses and would not conflict with a Williamson Act contract, there would be ***no impact.***

Question C

According to the Trinity Zoning Map (Trinity County, 2023b), there are no Timberland Production (TPZ) zones or Agricultural Forest (AF) zones in the project area. The closest AF and TPZ zones are ~0.22 miles and ~1.2 miles north of the project site, respectively. Therefore, the project would not conflict with existing zoning for, or cause rezoning of, timberland or forest land.

As stated under Regulatory Context, "timberland" is defined in PRC §4526 as *"land, other than land owned by the federal government, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees."*

According to the California Department of Forestry and Fire Protection (CAL FIRE) 2023 Forest Practice Rules (CAL FIRE, 2023), in Trinity County (CAL FIRE Northern Forest District), commercial timber species include the following "Group A" species: sugar pine, coast redwood, ponderosa pine, Jeffrey pine, western white pine, lodgepole pine, white fir, California red fir, noble fir, Douglas-fir, incense cedar, and Port Orford cedar.

In addition, the following "Group B" species may be considered commercial species if they are found on lands where the Group A species are growing naturally, or have grown naturally in the past: knobcone pine, gray pine, California black oak, Oregon white oak, tanoak, mountain hemlock, Brewer spruce, Englemann spruce, Sierra redwood, golden chinkapin, foxtail pine, white alder, Monterey pine, Pacific madrone, California laurel, and western juniper. Tree species in the project site include sugar pine, ponderosa pine, gray pine, and Douglas-fir which meet the definition of "timberland".

As stated under Regulatory Context above, "forest land" is defined in PRC §12220(g) as land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

The majority of the WTP site is forested and meets the definition of forest land as described above. Construction of the water treatment building, backwash storage tank, backwash water recycle pump station, water tank, and associated improvements would result in the conversion of ~2.8 acres of forest land to non-forest use.

As such, construction of the aforementioned improvements is subject to the California Forest Practices Rules (CAL FIRE, 2023) including the requirement to obtain a Conversion Exemption or a Timberland Conversion Permit (TCP) and approval of a Timber Harvest Plan (THP) by CAL FIRE prior to earth disturbance in this area. Applicable conversion exemptions may include a Less Than 3 Acre Conversion Exemption or a Public Agency Right-of-Way Exemption depending on the extent of tree removal and the discretion of CAL FIRE. If the proposed project is not exempt, the District may need to prepare a THP and obtain a TCP.

According to the Trinity County General Plan Update Background Report (Trinity County, 2023), the County has more than 1.7 million acres of forest land, totaling ~83 percent of the County's total land area. The project's conversion of up to ~2.8 acres of land represents a very small percentage of commercial forest land in the County. Therefore, the project's impact on timberland and forest land would be considered ***less than significant***.

CUMULATIVE IMPACTS

As documented above, the proposed project would not impact agricultural resources; therefore, the proposed project would not contribute to adverse cumulative impacts to agricultural resources. Project implementation would result in the conversion of timberland and forest land on the project site. However, the conversion represents a small percentage of land in the County that is considered commercial forest land. Further, tree removal would be subject to the requirements of CAL FIRE. Therefore, cumulative impacts of the proposed project on timberland and forest land would be less than significant.

MITIGATION

None necessary.

DOCUMENTATION

California Department of Conservation. 2022. Important Farmland Finder. https://maps.conservation.ca.gov/dlrp/ciff/. Accessed May 2023.

California Department of Forestry and Fire Protection. 2023. California Forest Practice Rules, 2023. https://bof.fire.ca.gov/media/hffh3kdv/post-last-week-of-dec-2023-forest-practice-rules-and-act-final.pdf. Accessed August 2023.

Trinity County. 2023a. Trinity County 2050 General Plan Update Background Report (Public Review Draft, March 2023). https://trinity2050.com/images/docs/PRD%20Background%20Report/TCGPU_PRD_Background%20Report%20Combined_REDUCED_2023%2003%2006%20MG.pdf. Accessed August 2023.

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U.S Department of Agriculture, Natural Resource Conservation Service. 2023. Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed May 2023.

4.3 AIR QUALITY

Would the project:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard)?	☐	☐	☒	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

REGULATORY CONTEXT

FEDERAL

Federal Ambient Air Quality Standards

The U.S. Environmental Protection Agency (USEPA), under the federal Clean Air Act (CAA), establishes maximum ambient concentrations for criteria air pollutants (CAP), known as the National Ambient Air Quality Standards (NAAQSs). The NAAQSs are designed to protect the health and welfare of the populace with a reasonable margin of safety. **Table 4.3-1** identifies the seven CAPs as well as characteristics, health effects and typical sources for each CAP:

TABLE 4.3-1
Federal Criteria Air Pollutants

Pollutant	Characteristics	Primary Effects	Major Sources
Ozone (O_3)	Ozone is a colorless or bluish gas formed through chemical reactions between two major classes of air pollutants: reactive organic gases (ROG) and oxides of nitrogen (NO_X). These reactions are stimulated by sunlight and temperature; thus, ozone occurs in higher concentrations during warmer times of the year.	• Respiratory symptoms. • Worsening of lung disease leading to premature death. • Damage to lung tissue. • Crop, forest, and ecosystem damage. • Damage to a variety of materials, including rubber, plastics, fabrics, paints, and metals.	Motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills.
Carbon Monoxide (CO)	Carbon monoxide is an odorless, colorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline and wood. Because CO is emitted directly from internal combustion engines, motor vehicles operating at slow speeds are the primary source of carbon monoxide.	• Chest pain in patients with heart disease. • Headache. • Light-headedness. • Reduced mental alertness.	Motor vehicle exhaust, combustion of fuels, combustion of wood in woodstoves and fireplaces.

Pollutant	Characteristics	Primary Effects	Major Sources
Nitrogen Dioxide (NO_2)	Nitrogen dioxide is a reddish-brown gas formed when nitrogen (N_2) combines with oxygen (O_2). Nitrogen oxides are typically created during combustion processes and are major contributors to smog formation and acid deposition. Of the seven types of nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere and is related to traffic density.	• Respiratory symptoms. • Damage to lung tissue. • Worsening of cardiovascular disease. • Precursor to ozone and acid rain. • Contributes to global warming and nutrient overloading which deteriorates water quality. • Causes brown discoloration of the atmosphere.	Automobile and diesel truck exhaust, petroleum-refining operations, industrial sources, aircraft, ships, railroads, and fossil-fueled power plants.
Sulfur Dioxide (SO_2)	Sulfur dioxide is a colorless, nonflammable gas that results mainly from burning high-sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries.	• Respiratory symptoms. • Worsening of cardiovascular disease. • Damage to a variety of materials, including marble, iron, and steel. • Damages crops and natural vegetation. • Impairs visibility. • Precursor to acid rain.	Petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and large ships, and fuel combustion in diesel engines.
Particulate Matter ($PM_{2.5}$ and PM_{10})	Particulate matter is a major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols that are small enough to remain suspended in the air for a long period of time. Particulate matter with a diameter of 10 microns or less (PM_{10}) is inhalable into the lungs and can induce adverse health effects. Fine particulate matter is defined as particles that are 2.5 microns or less in diameter ($PM_{2.5}$). Therefore, $PM_{2.5}$ comprises a portion of PM_{10}.	• Premature death. • Hospitalization for worsening of cardiovascular disease. • Hospitalization for respiratory disease • Asthma-related emergency room visits. • Increased symptoms, increased inhaler usage	Dust- and fume-producing construction activities, power plants, steel mills, chemical plants, unpaved roads and parking lots, woodburning stoves and fireplaces, wildfires, motor vehicles, and other combustion sources. Also a result of photochemical processes.
Lead	A heavy metal that occurs both naturally in the environment and in manufactured products.	• Impaired mental functioning in children • Learning disabilities in children • Brain and kidney damage. • Reproductive disorders. • Osteoporosis.	Lead-based industrial production (e.g., battery production and smelters), recycling facilities, combustion of leaded aviation gasoline by piston-driven aircraft, and crustal weathering of soils followed by fugitive dust emissions.

Source: U.S. Environmental Protection Agency, 2023.

STATE

California Clean Air Act

The California Clean Air Act (CAA) establishes maximum concentrations for the seven federal CAPs, as well as the four additional air pollutants identified below. The four additional standards are intended to address regional air quality conditions, not project-specific emissions. These maximum concentrations are known as the California Ambient Air Quality Standards (CAAQSs). The California Air Resources Board (CARB) has jurisdiction over local air districts and has established its own standards and violation criteria for each CAP under the CAAQS.

The CAA requires air districts that have been designated as a non-attainment area for CAAQS for ozone, carbon monoxide, sulfur dioxide, or nitrogen dioxide to prepare a plan for attaining and maintaining the standards. Air districts must review their progress toward attaining the CAAQS every three years.

Visibility-Reducing Particles. Visibility-reducing particles come from a variety of natural and manmade sources. Major sources include wildfires, residential fireplaces and woodstoves, windblown dust, ocean sprays, biogenic emissions, dust and fume-producing construction, industrial and agricultural operations, and fuel combustion. Primary effects include visibility impairment, respiratory symptoms, and worsening of cardiovascular disease.

Sulfate (SO_4). Sulfate is oxidized to sulfur dioxide (SO_2) during the combustion process and is subsequently converted to sulfate compounds in the atmosphere. Major sources include industrial processes and the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. Primary effects include respiratory symptoms, worsening of cardiovascular disease, damage to a variety of materials, including marble, iron, and steel, damage to crops and natural vegetation, and visibility impairment.

Hydrogen Sulfide (H_2S). Hydrogen sulfide is a colorless gas with the odor of rotten eggs. Major sources include geothermal power plants, petroleum refineries, and wastewater treatment plants. Primary effects include eye irritation, headache, nausea, and nuisance odors.

Vinyl Chloride (chloroethene). Vinyl chloride, a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. It is also listed as a toxic air contaminant. Most vinyl chloride is used to make PVC plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites due to microbial breakdown of chlorinated solvents. Primary effects include dizziness, drowsiness, headaches, and liver damage.

Table 4.3-2 provides the federal and State ambient air quality standards:

TABLE 4.3-2
Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards
Ozone (O_3)	8 Hour	0.070 ppm (137µg/m^3)	0.070 ppm (137µg/m^3)
	1 Hour	0.09 ppm (180 µg/m^3)	–
Carbon Monoxide (CO)	8 Hour	9 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)
	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)
Sulfur Dioxide (SO_2)	24 Hour	0.04 ppm (105 µg/m^3)	0.14
	3 Hour	–	–
	1 Hour	0.25 ppm (665 µg/m^3)	75 ppb (196 µg/m^3)
	Annual Arithmetic Mean	–	0.030 ppm
Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m^3	–
	24 Hour	50 µg/m^3	150 µg/m^3
Particulate Matter – Fine ($PM_{2.5}$)	Annual Arithmetic Mean	12 µg/m^3	12 µg/m^3
	24 Hour	–	35 µg/m^3
Sulfates	24 Hour	25 µg/m^3	–

Pollutant	Averaging Time	California Standards	National Standards
Lead	Calendar Quarter	–	1.5 µg/m^3
	30 Day Average	1.5 µg/m^3	–
	Rolling 3-Month Average	None	0.15 µg/m^3
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	–
Vinyl Chloride (chloroethene)	24 Hour	0.01 ppm (26 µg/m^3)	–
Visibility-Reducing Particles	8 Hour	–	–

Source: CARB, n.d.a Notes: mg/m^3=milligrams per cubic meter; ppm=parts per million; ppb=parts per billion; µg/m^3=micrograms per cubic meter

California Regional Haze Plan

The USEPA adopted the Regional Haze Rule in 1999, which includes requirements to protect visibility in Class I areas, which are the largest national parks and wilderness areas in the United States. In 2009, CARB prepared the California Regional Haze Plan that sets forth goals for improving visibility in the State's Class I areas. The Plan was most recently updated in June 2022 (CARB, 2022a).

Toxic Air Contaminants

The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (Assembly Bill 2588) was adopted in response to public concern regarding potential adverse health effects associated with emissions of toxic air contaminants (TACs) (CARB, n.d.b). TACs are regulated under the California CAA. A "hot spot" is an area where air toxics levels are higher than in the overall region, which may be caused by emissions from a specific facility.

Sources of TACs include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), grading and demolition of structures (asbestos), and diesel-motor vehicle exhaust. Facilities found to release high volumes of TACs are required to conduct a detailed health risk assessment that estimates emission impacts to the neighboring community and recommends mitigation to minimize TACs (CARB, n.d.c).

California Building Standards Code

Title 24 of the CCR, also known as the California Building Standards Code (CBSC), is based on the International Building Code (IBC) used widely throughout the country. The CBSC has been modified for California conditions to include more detailed and/or more stringent regulations. The CBSC consists of 13 parts, including the California Building Code, Energy Code, and Green Building Standards Code.

California Energy Code

The California Energy Code (Part 6 of the CBSC), also known as the State's Energy Efficiency Standards, was established in 1978 with a goal of reducing California's energy consumption for residential and nonresidential buildings. The Standards have the added benefit of reducing emissions of criteria pollutants.

The 2022 Energy Code, which went into effect on January 1, 2023, includes measures that will reduce energy use in newly constructed and altered single-family, multifamily, and nonresidential buildings. These measures add new prescriptive and performance standards for electric heat pumps for space conditioning and water heating, as appropriate for the various climate zones in California; requiring photovoltaic (PV) and battery storage systems for multifamily and selected nonresidential buildings; establishing efficiency measures for lighting, building envelopes, and HVAC systems; and making covered process load improvements.

The Environmental Impact Report prepared for the 2022 Energy Code update states that overall, the 2022 amendments are expected to reduce electricity and fossil fuel natural gas (and propane) use when compared to continued use of existing Energy Code requirements. Under the 2022 amendments, on a statewide basis by 2024, all measures for newly constructed buildings and altered components of existing buildings, collectively would save approximately 27 million therms of fossil fuel natural gas and 1.4 billion kWh of electricity, which result in net reductions of NO_X and sulfur oxides (SO_X) emissions beginning by

the end of 2023. The 2022 Energy Code contains standards for new construction and alternations to existing buildings that are anticipated to reduce NO_X emissions by 105 tons per year.

California Green Building Standards Code

In 2007, the California Building Standards Commission (CBSC) developed green building standards in an effort to meet the goals established by the Global Warming Solutions Act of 2006. These standards are referred to as the CALGreen Code and are included as Part 11 of the CBSC. The CALGreen Code requires new residential and commercial buildings to comply with mandatory measures related to planning and design, energy efficiency, water efficiency/conservation, material conservation, resource efficiency, and environmental quality.

The 2022 CALGreen Code went into effect on January 1, 2023, and includes provisions intended to reduce and eventually eliminate the use of fossil fuels, including natural gas, and replacing them with electricity generated by renewable sources such as solar panels, wind, and hydroelectric dams.

In-Use Off-Road Diesel-Fueled Fleets Regulation

CARB adopted the In-Use Off-Road Diesel-Fueled Fleets Regulation to reduce NO_X, diesel particulate matter, and other criteria pollutant emissions from various vehicles subject to the regulation. The regulation covers a wide range of vehicle types, including, but not limited to, vehicles used in construction, mining, industrial operations, and other industries. The regulations were most recently updated in August 2023 and became effective on October 1, 2023 (CARB, 2023).

The regulations require fleets to phase-out use of the oldest and highest polluting off-road diesel vehicles in California earlier or beyond what was required of fleets in the previous Off-Road Regulation. The amended regulations will be phased in starting in 2024 through the end of 2036. Beginning January 1, 2024, the updated regulations also require the use of renewable diesel (99 or 100 percent renewable) in all vehicles that are subject to the regulation, subject to certain exemptions.

The amended regulations require that beginning January 1, 2024, public agencies that award or enter into contracts for public works projects obtain fleet Certificates of Reported Compliance from fleets prior to awarding public works contracts. These requirements will ensure that only compliant fleets are being used on public works projects. CARB estimates that from 2024 through 2038, the amendments will generate an additional reduction above and beyond the previous regulation of approximately 31,087 tons of NO_X and 2,717 tons of $PM_{2.5}$ (CARB, 2022b). About half of those additional reductions are expected to be realized within the first five years of implementation.

Executive Order N-79-20

Executive Order (EO) N-79-20, signed by the Governor on September 23, 2020, established a goal that 100 percent of in-state sales of new passenger cars and trucks will be zero emission by 2035, and that 100 percent of medium- and heavy-duty vehicles be zero-emission by 2045 for all operations where feasible, and by 2035 for drayage trucks. Further, EO N-79-20 established a goal to transition to 100 percent zero-emission off-road vehicles and equipment by 2035 where feasible.

Mobile Source Strategy

CARB's 2020 Mobile Source Strategy (Strategy), describes the State's strategy for containing air pollutant emissions from vehicles, and quantifies growth in vehicle miles traveled that is compatible with achieving state climate targets (CARB, 2021). The Strategy demonstrates how the State can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risks from transportation emissions, and reduce petroleum consumption over the next fifteen years.

LOCAL

North Coast Unified Air Quality Management District (NCUAQMD):

The NCUAQMD is the regional agency charged with the responsibility of enforcing federal and State air quality regulations in Trinity County. The NCUAQMD adopts and enforces controls on stationary sources of air pollutants through its permit and inspection programs, and it regulates both agricultural and

residential burning. All projects in Trinity County are subject to applicable NCUAQMD rules and regulations in effect at the time of construction (NCUAQMD, 2015).

In 1995, the NCUAQMD prepared a study to identify the major contributors of PM_{10} in Humboldt, Del Norte, and Trinity Counties and to identify cost-effective control measures that could be implemented to reduce PM_{10} levels and obtain compliance with the State's ambient air quality standards (NCUAQMD, 1995). However, Trinity County is currently designated as an attainment or unclassified area for all federal and State ambient air quality standards (CARB, 2022c), and the 1995 study is not considered the air quality attainment plan for the District. The NCUAQMD regulates emissions, in part, through Rule 104, Prohibitions, as follows:

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

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

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

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

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

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

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

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

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

Trinity County has not adopted air quality thresholds for criteria pollutants to determine the level of significance for projects subject to CEQA review. However, as shown in **Table 4.3-3**, the NCUAQMD has criteria pollutant significance thresholds for new or modified stationary source projects proposed within the Air Quality Management District. These thresholds are defined and listed in the 2015 NCUAQMD Rules and Regulations (Rule 110, New Source Review and Prevention of Significant Deterioration).

TABLE 4.3-3
Thresholds of Significance for Criteria Pollutants of Concern

Pollutant	Daily (pounds per day)	Annual (tons per year)
Carbon monoxide	500.0	100.0
Fluorides	15.0	3.0
Hydrogen sulfide	50.0	10.0
Lead	3.2	0.6
Nitrogen oxides	50.0	40.0
Particulate matter (PM_{10})	80.0	15.0
Particulate matter ($PM_{2.5}$)	50.0	10.0

Pollutant	Daily (pounds per day)	Annual (tons per year)
Reactive organic compounds	50.0	40.0
Reduced sulfur compounds	50.0	10.0
Sulfur oxides	80.0	40.0
Sulfuric acid mist	35.0	7.0
Total reduced sulfur compounds	50.0	10.0

Source: 2015 North Coast Unified AQMD Rules and Regulations; Reg. 1, Rule 110 (NCUAQMD, 2015)

Trinity County General Plan, Safety Element

The Safety Element of the County's General Plan was adopted in 2014 to provide guidelines to promote safety to residents and visitors of Trinity County, and to reduce the potential risk of death, injuries, property damage, and the economic and social disruptions resulting from hazards such as fires, floods, earthquakes, landslides, and other hazards. The Safety Element includes the following Goal, Objective, and Policies that apply to the proposed project:

Trinity County General Plan – Safety Element		
Goal:	S.6	Continue to maintain a high standard of air quality in Trinity County and ensure that air quality meets state and federal ambient air quality standards including successful attainment of California Ambient Air Quality Standards for particulate matter.
Objective:	S.6.3	Land development and earth-moving activities do not diminish air quality.
Policies:	S.6.3 (a)	The County shall require an analysis of potential air quality impacts associated with significant new developments as required by CEQA, including appropriate mitigation measures prior to approval of the project development.
	S.6.3 (b)	Ground disturbing construction and grading shall employ fugitive dust control strategies to prevent visible emissions from exceeding NCAQMD regulations and prevent public nuisance.
	S.6.3 (c)	The County shall encourage that all projects requiring earth-disturbing activities, or a building permit that would result in earth disturbance, in areas likely to contain naturally occurring asbestos to have a California-registered geologist knowledgeable about asbestos-containing formations inspect the project for asbestos hazards.

Trinity County, Hayfork Community Plan

The 1996 Hayfork Community Plan provides a framework to guide development of public and private projects in the Hayfork area. The plan has been designed to meet the particular needs of the Hayfork area while also being consistent with the goals and objectives of the County's General Plan. The Hayfork Community Plan includes the following Objectives and Policies that apply to the proposed project:

Hayfork Community Plan – Hazards		
Objectives:	3.2	Protect the public health and the environment from risks associated with degradation of air quality.
	3.3	Protect the public from adverse odor impacts.

Policies:	3.2a	Prohibit development which would exceed NCAUD [*sic*] standards for air quality.
	3.3a	Uses that generate odors disruptive to, or dangerous for, residential areas are to be located away from residential areas or mitigated to reduce odor to an acceptable level.
	3.3b	Uses that generate irritating odors should be located in areas zoned for industrial or commercial use and should incorporate odor reduction devices to reduce the impact on neighboring uses.

DISCUSSION OF IMPACTS

Questions A and B

See discussion under Regulatory Context above and Section 4.8 (Greenhouse Gas Emissions).

Construction Emissions

Project emissions were estimated using Version 2022.1.1.20 of the California Emissions Estimator Model (CalEEMod). CalEEMod provides default values when site-specific inputs are not available. CalEEMod does not directly calculate ozone emissions. Instead, the emissions associated with ozone precursors (ROG and NO_X) are calculated. For the proposed project, site-specific inputs and assumptions include, but are not limited to, the following:

- Emissions from construction are based on all construction-related activities associated with the proposed uses, including but not limited to grading, use of construction equipment, material hauling, trenching, site preparation, application of architectural coatings, and paving.
- For purposes of the CalEEMod Analysis, it was assumed that construction would start in the spring of 2025 and occur over a period of approximately 1.5 years.
- Total land disturbance would be ~2.8 acres; 12,000 cubic yards (CY) of material would be imported; 12,000 CY would be exported.
- The total area to be paved/re-paved would be 0.1 acres.
- The total weight of demolition debris (pavement) to be removed from the project site would be approximately 10 tons.
- The total area receiving architectural coatings would be 27,500 square feet.
- The proposed project would result in the conversion of ~2.8 acres of forest land to non-forest use, resulting in the loss of an estimated 256 trees.

Output files, including all site-specific inputs and assumptions, are provided in **Appendix A**. The proposed project would result in the temporary generation of ROG, NO_x, PM_{10}, and other regulated pollutants during construction. ROG and NO_x emissions are associated with employee vehicle trips, delivery of materials, and construction equipment exhaust. PM_{10} would be generated during site preparation, excavation, paving, and from exhaust associated with construction equipment.

Although Trinity County and NCUAQMD have not adopted specific thresholds for construction-related air quality emissions, current NCUAQMD rules, including Rule 110, New Source Review and Prevention of Significant Deterioration, include thresholds for new and modified stationary sources. The Trinity County Waterworks District No. 1 has determined that it would be appropriate to use these significance thresholds for construction-related emissions as well.

Table 4.3-4 shows the highest daily levels of project construction emissions regardless of construction phase.

TABLE 4.3-4
Estimated Construction Emissions (Maximum Pounds per Day)

Construction Year	Pollutants of Concern (lbs/day)					
	ROG	NOx	PM_{10}	$PM_{2.5}$	CO	SO_2
2025	4.81	43.8	10.8	5.86	42.7	0.08
2026	8.05	16.3	0.88	0.65	23.5	0.04
NCUAQMD Threshold	50	50	80	50	500	80

As shown in **Table 4.3-4**, construction of the proposed project would not exceed the NCUAQMD's thresholds shown in **Table 4.3-3**.

Operational Emissions

Operation of the project would generate criteria pollutants from area sources (e.g., cleaning supplies, maintenance activities such as painting, etc.) and mobile sources (e.g., vehicle trips for employees, visitors, vendors, deliveries, solid waste disposal, etc.), as well as indirect emissions associated with energy use (e.g., operation of the new water treatment building, backwash storage tank, water storage tank, and backwash recycle pump station). Vehicle traffic on graveled surfaces would also generate $PM_{2.5}$ and PM_{10} emissions.

The primary contributor of stationary source emissions would be the emergency back-up generators; however, the generators would be operated only for limited times during monthly testing, and during prolonged power outages. **Table 4.3-5** shows estimated operational emissions for the proposed project.

TABLE 4.3-5
Estimated Operational Emissions (Maximum Pounds per Day)

Source	Pollutants of Concern (lbs/day)					
	ROG	NOx	PM_{10}	$PM_{2.5}$	CO	SO_2
Mobile	0.33	0.38	0.17	0.04	2.60	0.01
Area	0.42	<0.005	<0.005	<0.005	0.48	<0.005
Energy	0.01	0.11	0.01	0.01	0.09	<0.005
Stationary	12.5	37.8	2.13	2.13	34.5	0.06
Vegetation	0.01	<0.005	0.02	<0.005	-	<0.005
Total	**13.3**	**38.3**	**2.33**	**2.18**	**37.6**	**0.07**

Source: CalEEMod, 2023. Note: Totals may not add due to rounding.

The project does not include any other components that would increase long-term operational emissions above existing conditions. The proposed project would not exceed the NCUAQMD thresholds. Therefore, operational impacts would be less than significant.
For both construction and operational emissions, the proposed project would not result in significant impacts associated with ozone (O_3), lead (Pb), hydrogen sulfide (H_2S), vinyl chloride, or visibility reducing particles as discussed below.

Ozone. CalEEMod does not directly calculate ozone emissions. Instead, the emissions associated with ozone precursors (ROG and NO_x) are calculated. Because project construction would generate relatively low amounts of both ROG and NO_x, the potential for ozone production/emissions is less than significant.

Lead. Elevated levels of airborne lead at the local level are usually found near industrial operations that process materials containing lead, such as smelters and battery manufacturing/ recycling facilities. As these conditions are not applicable to the proposed project, the potential for lead emissions is less than significant.

Hydrogen Sulfide. Hydrogen sulfide is formed during the decomposition of organic material in anaerobic environments, including sewage treatment processes. Because these conditions are not applicable to the proposed project, the potential for hydrogen sulfide emissions is less than significant.

Vinyl Chloride. Vinyl chloride is used to manufacture polyvinyl chloride (PVC) plastic and other vinyl products. About 99 percent of the global vinyl chloride capacity is used for the production of PVC and its copolymers (U.S. Department of Health and Human Services, 2023). Additionally, vinyl chloride is produced during the microbial breakdown of chlorinated solvents (e.g., engine cleaner, degreasing agent, adhesive solvents, paint removers, etc.). The project does not include the production or use of vinyl chloride.

Visibility-Reducing Pollutants. Visibility-reducing pollutants generally consist of sulfates, nitrates, organics, soot, fine soil dust, and coarse particulates. These pollutants contribute to the regional haze that impairs visibility, in addition to affecting public health. According to the California Regional Haze Management Plan (CARB, 2022a), natural wildfires and biogenic emissions are the primary contributors to visibility-reducing pollutants. For the proposed project, visibility-reducing pollutants (e.g., $PM_{2.5}$ and PM_{10}), would be generated only during construction activities. Because only relatively small amounts of particulates would be generated, potential impacts with respect to visibility-reducing pollutants are less than significant.

As discussed under Regulatory Context above, Trinity County is designated as an attainment or unclassified area for all federal and State ambient air quality standards and there are no applicable local or regional air quality attainment plans that apply to the proposed project. Further, the project would not exceed NCUAQMD thresholds during construction or operation and would not result in significant impacts associated with O_3, Pb, H_2S, vinyl chloride, or visibility-reducing particles. Therefore, impacts would be ***less than significant.***

Question C

See discussion under Questions A and B. Sensitive receptors are individuals or groups of people that are more affected by air pollution than others, including young children, elderly people, and people weakened by disease or illness. Locations that may contain high concentrations of sensitive receptors include residential areas, schools, playgrounds, childcare centers, hospitals, convalescent homes, and retirement homes. As stated above, the proposed project does not have any components that would result in significant long-term operational emissions.

Asbestos can be released from serpentine and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. According to the California Department of Conservation, there are no historic asbestos mines, ultramafic rocks, or other natural occurrences of asbestos in the project site (CDC, n.d.). In addition, no structures that could contain asbestos would be demolished.

As discussed under Questions A and B, the proposed project would generate PM_{10} and other pollutants during construction. Although these emissions would cease with completion of construction work, sensitive receptors adjacent to the construction area could be exposed to elevated dust levels and other pollutants. **MM 4.3.1** is included to minimize temporary impacts on sensitive receptors.

Compliance with federal, state, and local regulations, and implementation of **MM 4.3.1** would reduce impacts to a ***less-than-significant*** level.

Question D

The project does not include any components that would result in the generation of long-term odors or similar emissions adversely affecting a substantial number of people. Construction activities that have the potential to emit odors and similar emissions include operation of diesel equipment, generation of fugitive dust, and paving (asphalt). Odors and similar emissions from construction are intermittent and temporary, and generally would not extend beyond the construction area. Due to the temporary and intermittent nature of construction odors, impacts during construction would be ***less than significant.***

CUMULATIVE IMPACTS

By its very nature, air pollution is largely a cumulative impact. If a project's individual emissions contribute toward exceedance of the NAAQS or the CAAQS, then the project's cumulative impact on air quality would be considered significant. In developing attainment designations for criteria pollutants, the USEPA considers the region's past, present, and future emission levels. In addition, local air districts determine suitable significance thresholds based on an area's designated nonattainment status, which also considers the region's past, present, and future emissions levels.

As noted above, Trinity County is designated as an attainment or unclassified area for all federal and State ambient air quality standards and the proposed project is not subject to the NCUAQMD's draft Particulate Matter Attainment Plan. Additionally, the proposed project would not result in a significant increase in long-term operational emissions and construction emissions resulting from the proposed project would not exceed the NCUAQMD referenced thresholds. Implementation of **MM 4.3.1** and compliance with the regulations identified under Regulatory Context ensures that the proposed project would have a less-than-significant cumulative impact on local and regional air quality.

MITIGATION

MM 4.3.1 The following measures shall be implemented throughout construction:

a. All material excavated, stockpiled, or graded shall be covered or sufficiently watered to prevent fugitive dust from leaving property boundaries and causing a public nuisance or a violation of ambient air quality standards. Watering shall occur at least twice daily, preferably in the mid-morning and after work is completed each day, with care given to work sites with bare soil.

b. All areas (other than paved roads) with vehicle traffic shall be watered periodically or have dust palliatives applied for stabilization of dust emissions.

c. All on-site vehicles shall be limited to a speed of 15 miles per hour on unpaved surfaces.

d. All land clearing, grading, earth moving, and excavation activities on the project site shall be suspended when winds are causing excessive dust generation.

e. All trucks hauling dirt, sand, soil, or other loose materials shall be covered or shall maintain at least two feet of free board in accordance with the requirements of Section 23114 of the California Vehicle Code.

f. Paved streets in and adjacent to the construction site shall be swept or washed at the end of the day to remove excessive accumulations of silt and/or mud resulting from activities on the development site.

g. When not in use, motorized construction equipment shall not be left idling for more than five minutes.

DOCUMENTATION

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U.S. Environmental Protection Agency. 2023. Criteria Air Pollutants. https://www.epa.gov/criteria-air-pollutants. Accessed August 2023.

4.4 BIOLOGICAL RESOURCES

Would the project:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community, including oak woodland, identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c. Have a substantial adverse effect on state or federally protected wetlands, (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

REGULATORY CONTEXT

FEDERAL

Federal Clean Water Act

Section 404

Under Section 404 of the Clean Water Act (CWA), the U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged and fill material into wetlands and waters of the U.S. The USACE requires that a permit be obtained prior to the placement of structures within, over, or under navigable waters and/or prior to discharging dredged or fill material into waters below the ordinary high-water mark (OHWM).

There are several types of permits issued by the USACE that are based on the project's location and/or level of impact. Regional general permits are issued for recurring activities at a regional level. Nationwide permits (NWPs) authorize a wide variety of minor activities that have minimal effects. Projects that are not covered under a regional general permit and do not qualify for a NWP are required to obtain a standard permit (e.g., individual permit or letter of permission).

Section 401

Under Section 401 of the CWA, a project requiring a USACE Section 404 permit is also required to obtain a State Water Quality Certification (or waiver) to ensure that the project will not violate established State water quality standards.

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 requires that all federal agencies ensure that any action they authorize, fund, or carry out will not likely jeopardize the continued existence of federally listed species or result in the destruction or adverse modification of critical habitat. Projects that would result in "take" of any federally listed species are required to obtain authorization from National Marine Fisheries Service (NMFS) and/or U.S. Fish and Wildlife Service (USFWS) through either Section 7 (interagency consultation) or Section 10(a) (incidental take permit) of FESA, depending on whether the federal government is involved in permitting or funding the project.

Federal Migratory Bird Treaty Act

Under the Migratory Bird Treaty Act (MBTA) of 1918, as amended, migratory bird species listed in CFR Title 50, §10.13, including their nests and eggs, are protected from injury or death, and any project-related disturbances. The MBTA applies to over 1,000 bird species, including geese, ducks, shorebirds, raptors, and songbirds, some of which were near extinction before MBTA protections were put in place in 1918. The MBTA provides protections for nearly all native bird species in the U.S., including non-migratory birds.

Fish and Wildlife Conservation Act

Under the Fish and Wildlife Conservation Act of 1980, as amended, the USFWS maintains lists of migratory and non-migratory birds that, without additional conservation action, are likely to become candidates for listing under the FESA. These species are known as Birds of Conservation Concern and represent the highest conservation priorities.

Bald and Golden Eagle Protection Act

This Act provides for the protection of the bald eagle and the golden eagle by prohibiting, except under certain specified conditions, the taking, possession, and commerce of such birds and their occupied and unoccupied nests.

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), also known as the Sustainable Fisheries Act, requires the identification of Essential Fish Habitat (EFH) for federally managed fishery species and implementation of appropriate measures to conserve and enhance EFH that could be affected by project implementation. All federal agencies must consult with NMFS on projects authorized, funded, or undertaken by that agency that may adversely affect EFH for species managed under the MSFCMA.

STATE

California Endangered Species Act

Under the California Endangered Species Act (CESA), the Fish and Game Commission is responsible for listing and delisting threatened and endangered species, including candidate species for threatened or endangered status. CDFW provides technical support to the Commission and may submit listing petitions and assist with the evaluation process. CDFW maintains documentation on listed species, including occurrence records. In addition, CDFW maintains a list of fully protected species, most of which are also listed as threatened or endangered. CDFW also maintains a list of species of special concern (SSC). SSC are vulnerable to extinction but are not legally protected under CESA; however, impacts to SSC are generally considered significant under CEQA.

CESA prohibits the take of State-listed threatened and endangered species, but CDFW has the authority to issue incidental take permits under special conditions when it is demonstrated that impacts are

minimized and mitigated. Fully protected species may not be taken or possessed at any time, and no licenses or permits may be issued for their take. One exception allows the collection of fully protected species for scientific research.

California Fish and Game Code §1600-1616 (Streambed Alteration)

California Fish and Game Code §1600 *et seq.* requires that a project proponent enter into a Streambed Alteration Agreement (SAA) with CDFW prior to any work that would divert or obstruct the natural flow of any river, stream, or lake; change the bed, channel, or bank of any river, stream, or lake; use material from any river, stream, or lake; and/or deposit or dispose of material into any river, stream, or lake. An SAA will typically include conditions that minimize/avoid potentially significant adverse impacts to riparian habitat and waters of the state.

California Fish and Game Code §3503 and 3503.5 (Nesting Bird Protections)

These sections of the Code provide regulatory protection to resident and migratory birds and all birds of prey within the State and make it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Code.

California Fish and Game Code §1900-1913 (Native Plant Protection Act)

The Native Plant Protection Act (NPPA) includes measures to preserve, protect, and enhance native plants that are listed as rare and endangered under the CESA. The NPPA states that no person shall take, possess, sell, or import into the state any rare or endangered native plant, except in compliance with provisions of the Act.

Oak Woodlands Conservation (SB 1334, 2004)

SB 1334 of 2004 added §21083.4 to CEQA to require counties to determine whether a project within the county's jurisdiction may result in the conversion of oak woodlands that would have a significant effect on the environment. If a county determines that there may be a significant effect on oak woodlands, the county must require mitigation to minimize/offset the conversion of oak woodlands.

Porters-Cologne Water Quality Control Act §13000

The Porter-Cologne Act requires that factors that may affect the quality of waters determined to be under state jurisdiction be regulated to maintain the highest level of water quality attainable. The RWQCB regulates waters of the State and has a policy of no-net-loss of wetlands. The RWQCB typically requires mitigation for impacts to wetlands before it will issue a water quality certification.

LOCAL

Trinity County General Plan, Open Space and Conservation Element

The Open Space and Conservation Element of the County's General Plan was adopted in 1973 to preserve and protect the prime forest lands and the limited agricultural lands of Trinity County to conserve the land resources of Trinity County, and to protect water resources as well. The following Objective and Recommendations apply to the proposed project:

Trinity County General Plan – Open Space and Conservation Element	
Objective:	To conserve and maintain streams, lakes, and forest open space as a means of providing natural habitat for all species of wildlife existing in the County.
Recommendations:	To maintain all species of fish and wildlife for their intrinsic and ecological values as well as for their direct benefit to mankind.
	Any plans to alter the present environment should be considered on the basis of protecting fish and wildlife and their habitat.

		Present land uses which result in siltation, and pollution of lakes and streams should be carefully monitored, and if necessary corrected to assure clean and productive habitat.
		Outstanding wildlife habitats that have an unusually high value for fish and wildlife should be carefully considered before any development altering this environment is permitted.

Trinity County, Hayfork Community Plan

The 1996 Hayfork Community Plan provides a framework to guide development of public and private projects in the Hayfork area. The plan has been designed to meet the particular needs of the Hayfork area while also being consistent with the goals and objectives of the County's General Plan. The Hayfork Community Plan includes the following Goals, Objectives, and Policies that apply to the proposed project:

Hayfork Community Plan – Natural Resource		
Goals:	2	Preserve, maintain, and enhance habitat for wildlife and rare plants within the Plan Area.
	3	Provide for the continued utilization of the natural resources of the Plan Area for both humans and wildlife.
Objectives:	2.1	Conserve and maintain streams as a means of providing natural habitat for all species of wildlife.
	2.2	Conserve and maintain open spaces as a means of providing natural habitat for all species of wildlife.
	2.3	Conserve and maintain forest land as a means of providing natural habitat for all species of wildlife.
	2.4	Protect identified rare plant communities and their habitat.
	3.1	Maintain and protect water quality and quantity for domestic uses, fisheries, and wildlife in the basin.
Policies:	2.1a	Retain riparian corridors and wetlands within the Plan Area, including the corridors along Hayfork, Tule, Salt, Big, Duncan, Carr, Summit, and Barker Creeks as well as other perennial and ephemeral streams, springs, seeps, wet meadows, pools, and mineral "licks".
	2.2a	Retain high-use wildlife migration and travel corridors by requiring setbacks or open space designation at the time of land division or other land use entitlement.
	2.2b	Review subdivisions and other projects requiring discretionary approval to assure that open space areas are preserved wherever feasible (preservation/mitigation measures should include: setbacks, homesite clustering, and fencing).
	2.3b	Encourage clustering of development within forest land to allow for greater utilization of land without interfering with its value for wildlife habitat and timber production.
	2.4a	Implement site-specific measures to protect (or mitigate impacts to) rare plants and their habitat.
	3.1b	Maintain and enhance the water quality and quantity of area streams by reviewing development proposals and public agency and private land management practices for potential impacts to water quality.
	3.1c	Require site-specific mitigation measures for projects likely to result in siltation and/or pollution of streams.
	3.1d	Support efforts to improve and/or conserve the amount of quality of water resources in the Hayfork basin.

DISCUSSION OF IMPACTS

Question A

The evaluation of potential impacts on special-status species and sensitive natural communities entailed records searches and field evaluations conducted by ENPLAN and detailed below. **Appendix B** includes the following:

- California Natural Diversity Database (CNDDB) Query Summary (CDFW, 2023)
- California Native Plant Society (CNPS) Query Summary (CNPS, 2023)
- U.S. Fish and Wildlife Service List of Threatened and Endangered Species and Critical Habitats (USFWS, 2023b)
- ENPLAN's evaluation of the potential for special-status species to occur on the project site
- A list of vascular plants observed during the botanical survey.

The records search included a review of CNDDB records for special-status plants and wildlife (CDFW, 2023b); CNPS records for special-status plant species; federal records for listed, proposed, and candidate plant and wildlife species under jurisdiction of the USFWS; critical habitat data maintained by the USFWS and NMFS (USFWS, 2023a; NMFS, 2023a); and EFH and listed fish species data maintained by NMFS (NMFS, 2023b).

To determine the presence/absence of special-status plant and wildlife species in the study area, an ENPLAN biologist conducted botanical and wildlife surveys on May 28, 2021; May 5, 2022; and April 27, 2023. The special-status plant species potentially occurring in the study area would have been evident at the time the fieldwork was conducted. Some of the special-status wildlife species would not have been evident at the time the fieldwork was conducted; however, determination of their potential presence could readily be made based on observed habitat characteristics. The potential for each special-status species to occur in the project site is evaluated in **Appendix B**.

Special-Status Plant Species

Review of the USFWS species lists for the project area identified no federally listed plant species as potentially occurring in the project area. The project area does not contain designated critical habitat for federally listed plant species.

Review of CNDDB records found that no special-status plants have been reported in the project site. Three special-status species have been reported within a five-mile radius of the project area: Heckner's lewisia (California Rare Plant Rank [CRPR] 1B.2), and Tracy's eriastrum (State Listed – Rare, CRPR 3.2). CNDDB records also identified one non-status species within five miles of the project: woolly meadowfoam (CRPR 4.2). **Appendix B** summarizes the CNDDB species report.

The CNPS Inventory identified two additional special-status plants, Canyon Creek stonecrop (CRPR 1B.3) and Niles' harmonia (CRPR 1B.1) within the U.S. Geologic Survey's (USGS) Hayfork 7.5-minute quadrangle. CNPS records also identified two non-status species within the quadrangle: lemon-colored fawn lily (CRPR 4.3) and Nelson's stringflower (CRPR 4.3). Nelson's stringflower was observed within the forested area on the eastern side of the project area. The species occurs in cismontane woodland and lower montane coniferous forest habitat, with a blooming period from April to June. While Nelson's stringflower was observed within the project boundary, it is not a special-status plant species and thus does not require avoidance measures for project implementation. **Appendix B** includes a summary of the CNPS species report.

The potential for each special-status plant species to occur in the project site is evaluated in **Appendix B**. As documented in **Appendix B**, no special-status plant species were observed during the botanical survey, nor are any expected to be present; therefore, the proposed project would have no impact on special-status plant species.

Special-Status Wildlife Species

Review of the USFWS species list for the project area identified the following federally listed wildlife species as potentially being present in the project area: gray wolf (Federally Endangered [FE]), North American wolverine (Federally Proposed Threatened [FPT]), northern spotted owl (FT), yellow-billed cuckoo (FT), monarch butterfly (Federal Candidate [FC]), conservancy fairy shrimp (FE), vernal pool fairy shrimp (FT), and vernal pool tadpole shrimp (FE). The project area does not contain designated critical habitat for federally listed wildlife species.

Review of CNDDB records found that no special-status wildlife species have been reported in the project site. Nine special-status wildlife species have been reported within a five-mile radius of the project site: Chinook salmon – Upper Klamath and Trinity Rivers ESU (FC, State Candidate Endangered [SCE], State Species of Special Concern [SSSC]), fisher (SSSC), foothill yellow-legged frog – North Coast DPS (SSSC), golden eagle (State Fully Protected [SFP]), Pacific tailed frog (SSSC), Townsend's big-eared bat (SSSC), and northwestern pond turtle (SSSC, FPT). CNDDB identified three non-status species as occurring within a five-mile radius of the project site: osprey, hooded lancetooth, and Trinity shoulderband.

NMFS records identify one anadromous fish species as being potentially present in the project area: Southern Oregon Northern California Coast (SONCC) Coho Salmon. However, as no fish-bearing streams are present in the project area, the species is not anticipated to be present. The potential for each special-status species to occur in the project site is evaluated in **Table 3**, in **Appendix B**. As documented in **Appendix B,** the study area has the potential to support special-status bat species (such as Townsend's big-eared bat), and the western bumble bee.

Special-Status Bats

Although no bats were observed in the project site during the wildlife survey, buildings and trees on the site have a moderate potential to be utilized for roosting by Townsend's big-eared bats and other special-status bats that have not been previously recorded in the area, such as the pallid bat. Direct effects could include mortality resulting from the removal of a tree containing a roosting bat or colony. Indirect effects may include the abandonment of maternity colonies in response to construction noise.

Potential impacts to special-status bat species can be avoided by conducting construction outside of the maternal roosting period for Townsend's big eared bat and pallid bat (April 1 through July 31) as described in **MM 4.4.1**. Additionally, **MM 4.4.2** provides a two-step tree removal process to be used during construction periods that will allow bats to leave their daytime roosting sites before tree removal is conducted. With implementation of **MM 4.4.1** and **4.4.2**, potential impacts to special-status bat species will be reduced to less than significant.

Western Bumble Bee (*Bombus occidentalis*), State Candidate Endangered

Western bumble bees are found in meadows and grasslands with abundant floral resources. In California, the species is largely confined to high-elevation sites in the Sierra Nevada and scattered sites on the coast. The flight period is generally from early February to late November. Nests are primarily in underground cavities on open west-southwest slopes bordered by trees, although a few aboveground nests have been reported. Very little is known about overwintering sites; however, the species has been reported in overwintering sites that were two inches deep in a "steep west slope of the mound of earth."

The project site contains a variety of floral resources that could be potential foraging sources for the western bumble bee. The project area falls within the current active habitat range for the species (CDFW, 2023d). Unidentified species of bumble bees were observed foraging during the April and May field survey visits. Protocols for conducting surveys for Candidate bumble bee species were published by CDFW in June 2023 (CDFW, 2023c). Potential impacts to the western bumble bee can be avoided with implementation of **MM 4.4.3,** which requires pre-construction surveys for bumble bee species and follow-up actions if the Candidate species are identified on the site.

Birds of Conservation Concern

The project area is located within the Pacific Flyway, and it is possible that birds could nest in or adjacent to the study area. Nesting birds, if present, could be directly or indirectly affected by construction activities. Direct effects could include mortality resulting from tree removal and/or construction equipment operating in an area with an active nest with eggs or chicks. Indirect effects could include nest abandonment by adults in response to loud noise levels or human encroachment, or a reduction in the amount of food available to young birds due to changes in feeding behavior by adults.

Construction activities, particularly those involving tree removal, have the potential to directly impact nesting birds, if present. In the local area, most birds nest between February 1 and August 31. As required by **MM 4.4.4**, the potential for adversely affecting nesting birds can be greatly minimized by removing vegetation and conducting construction activities either before February 1 or after August 31. If this is not possible, a nesting survey would be conducted within one week prior to removal of vegetation and/or the start of construction. If active nests are found in the project site, the District would implement measures to comply with the Migratory Bird Treaty Act and California Fish and Game Code. Compliance measures may include, but are not limited to, exclusion buffers, sound-attenuation measures, seasonal work closures based on the known biology and life history of the species identified in the survey, as well as ongoing monitoring by biologists.

With implementation of **MM 4.4.1 through MM 4.4.4,** direct and indirect impacts to special-status species are ***less than significant.***

Questions B and C

According to CDFW, since the inception of the Natural Heritage Program in 1979, natural communities have been considered for their conservation significance. Unique natural communities were recorded in the CNDDB until the mid-1990s; at that time, funding for the natural community portion of the program was eliminated. Although natural communities are no longer being added to the CNDDB, many of the natural community occurrences maintained in the CNDDB still have significance for conservation, and their existence should be considered in the environmental review process.

Sensitive Natural Communities

CNDDB records did not identify any sensitive natural communities within a five-mile radius of the WTP site or Ewing Pump Station site. The Ewing Pump Station building is located in a previously disturbed area. The dominant habitat type at the WTP and Pump Station site is urban and pine/oak forest. One wetland was identified adjacent to the Pump Station.

The urbanized area at the WTP site is located on the west side of the study area and includes existing structures and paved areas. The pine/oak forest is located on the east side of the study area. The canopy in the pine/oak forest is open to moderately dense and is comprised of Oregon oak, California black oak, sugar pine, ponderosa pine, gray pine, and Douglas-fir. Extensive tree removal has already occurred due to projects completed by the District in the past, leaving the forest fragmented and moderately degraded.

As discussed under Section 4.2, Agriculture and Forestry Resources, implementation of the proposed project would result in the conversion of ~2.8 acres of forestland to non-forest use. The significance of tree removal can be addressed based on CDFW's sensitivity ratings for natural communities. The sensitivity ratings are based on the rarity of the vegetative association and the extent of threats to the association. As described by CDFW, the pine/oak forest woodland in the study area most closely resembles the *Quercus kelloggii – Pinus ponderosa* association (71.010.26) and the *Mixed oak – Pinus sabiniana/ grass* association (71.100.07). Neither of these associations is considered sensitive by CDFW, as documented in the *California Natural Communities List* dated July 5, 2022.

Therefore, because there are no sensitive natural communities on site, there would be ***no impact*** to sensitive natural communities.

Wetlands and Other Jurisdictional Waters

The USFWS National Wetlands Inventory map did not identify any wetland features at the WTP site or Ewing Pump Station site (USFWS, n.d.). ENPLAN conducted field investigations on May 28, 2021, May 5, 2022; and April 27, 2023, to identify wetlands and other waters of the U.S. and State. The field investigations were conducted in accordance with technical methods outlined in the *Corps of Engineers Wetlands Delineation Manual* (U.S. Department of the Army, Corps of Engineers, 1987), *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE, 2008), and the *Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (limited to determining State jurisdiction).

No wetlands or other potentially jurisdictional waters were identified in the study area for the WTP site during the field surveys. A wetland feature was identified immediately southwest of the Ewing Pump Station. As discussed under Section 3.2, Project Components/Physical Improvements, improvements may include the installation of a ~30-foot communications tower adjacent to the Pump Station building. To ensure that the wetland feature will be avoided, **MM 4.4.5** requires that the ground-mounted antenna be installed outside of the exclusion area at the Pump Station, shown in **Figure 4.4-1. MM 4.4.5** also requires that prior to commencement of construction activities, exclusionary flagging, or other markers shall be installed around the wetlands.

Construction of the proposed improvements has a potential to indirectly affect the wetlands; however, as discussed in Section 4.10, Hydrology and Water Quality, Best Management Practices (BMPs) would be implemented to control erosion and sedimentation and prevent damage to streams, watercourses, and aquatic habitats. BMPs may include, but are not limited to, limiting construction to the dry season; use of straw wattles, silt fences, and/or gravel berms to prevent sediment from discharging to waterways; and revegetating temporarily disturbed sites upon completion of construction. With the use of BMPs for spill prevention and erosion control and implementation of **MM 4.4.5**, the potential effects of the project on wetlands and other waters of the U.S. and State would be ***less than significant.***

Potential Introduction and Spread of Noxious Weeds

The introduction and spread of noxious weeds during construction activities has the potential to adversely affect sensitive habitats. Each noxious weed identified by the California Department of Food and Agriculture (CDFA) receives a rating which reflects the importance of the pest, the likelihood that eradication or control efforts would be successful and the present distribution of the pest within the state. Only two CDFA-ranked weeds, Klamath weed and downy brome, were observed in the study area during the botanical survey.

A broader view of invasive plants is provided by the California Invasive Plant Council (Cal-IPC), a nonprofit organization that aims to protect California's environment and economy from invasive plants. Cal-IPC maintains the California Invasive Plant Inventory, a comprehensive list of invasive plants based on ecological impacts, as well as "Watch" plants that may become invasive in the future. The following additional weeds that are assigned a "Moderate" or "High" rating by Cal-IPC were also observed on-site: tall sock-destroyer, greater periwinkle, yellow star-thistle, bull thistle, smooth cat's ear, slender wild oats, wild oats, ripgut grass, downy brome, medusa-head, tall fescue, foxtail fescue, annual ryegrass, foxtail barley, sheep sorrel, and Himalayan blackberry.

Weeds observed in the project area are of widespread distribution in the County, and further spread of these weeds is not anticipated. However, other noxious weeds could be introduced into the project area during construction if construction vehicles are not properly washed before entering the project site. Soil import/export and use of certain erosion-control materials such as straw can also result in the spread of noxious weeds. As required by **MM 4.4.6,** the potential for introduction and spread of noxious weeds can be avoided/minimized by using only certified weed-free erosion control materials, mulch, and seed; limiting any import or export of fill material to material that is known to be weed free; and requiring the construction contractor to thoroughly wash all construction vehicles and equipment before entering and upon leaving the job site. Implementation of **MM 4.4.6** reduces potential impacts related to the introduction and spread of noxious weeds to a ***less-than-significant*** level.

Path: N:\company\files\01-Jobs Active\032-76 PACE - Hayfork WTP Improvement Project\3-Project GIS\3-Map Documents\Map Sessions\CEQA\Proposed Improvements.aprx

All depictions are approximate. Not a survey product. 10.09.23

0 50 Feet

Figure 4.4-1

Ewing Pump Station - Construction Exclusion Area

ENPLAN

Question D

Project implementation would not interfere substantially with the movement of any native resident, migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, nor would it impede the use of native wildlife nursery sites.

Numerous native resident and migratory fish and wildlife species inhabit Trinity County. Most notable among the migratory species are anadromous salmonids, black-tailed deer, mule deer, and various species of migratory birds. Review of the Hayfork Community Plan found that the entirety of the Planning Area, including the project site, is designated as winter range for the black-tailed deer herd. CDFW also identifies these areas as critical winter ranges for mule deer (CDFW, 2021). No summer ranges or fawning grounds are identified in the project area. Approximately 5.57 acres of mule deer critical winter range would be lost in the footprint of the new improvements. There are about 56,375 acres of critical winter range for mule deer mapped in the Hayfork/Hayfork Summit general area (CDFW, 2021); impacts to the area would be less than 1 percent of the total critical winter range and thus would be insignificant. There are ample areas adjacent to the site that allow for wildlife movement. No significant impacts to mule deer winter range habitat or to habitat connectivity for mule deer are anticipated.

Native wildlife nursery sites are locations where native fish and wildlife gather for breeding and raising young. These areas may include spawning areas for fish, fawning areas for deer, nesting rookeries for birds, and maternal roosts for bats. There is no habitat for fish in or adjacent to the project site, and there are no identified fawning grounds in the project area. However, as discussed under Question A, trees on the project site could provide habitat for bat maternity colonies and nesting birds. Implementation of **MM 4.4.1** and **MM 4.4.2** (bat protections) and **MM 4.4.3** (nesting bird protections) ensures that the project does not interfere with wildlife nursery sites for birds and bats. Daytime movements of deer and other terrestrial wildlife species may be temporarily affected during construction activities; however, wildlife species would be able to alter their routes to move around the construction area. There is a slight possibility that wildlife could be trapped in open trenches and pipes during construction. **MM 4.4.7** would prevent the inadvertent entrapment of wildlife.

Therefore, construction-related activities that may impede the movement of wildlife would be temporary and would cease at completion of the project, permanent fencing would not significantly impede the movement of wildlife, **MM 4.4.1 and MM 4.4.2** minimize potential impacts to bats, **MM 4.4.3** minimizes the potential to adversely affect nesting birds, and **MM 4.4.7** would prevent the inadvertent entrapment of wildlife; impacts would be ***less than significant.***

Question E

As identified under Regulatory Context, the Hayfork Community Plan includes goals, objectives, policies, and programs related to the conservation of natural resources. Implementation of **MM 4.4.1 through MM 4.4.7** and compliance with resource agency permit conditions ensures consistency with local policies that protect biological resources. Therefore, impacts would be ***less than significant.***

Question F

A Habitat Conservation Plan (HCP) is a federal planning document that is prepared pursuant to Section 10 of the Federal Endangered Species Act (FESA) when a project results in the "take" of threatened or endangered wildlife. Regional HCPs address the "take" of listed species at a broader scale to avoid the need for project-by-project permitting. A Natural Community Conservation Plan (NCCP) is a state planning document administered by CDFW. There are no HCPs, NCCPs or other habitat conservation plans that apply to the proposed project (CDFW, n.d.). Therefore, there would be ***no impact***.

CUMULATIVE IMPACTS

Cumulative projects in the vicinity of the project area, including growth resulting from build-out of the County's General Plan, are anticipated to permanently remove plant and wildlife resources. As development in the area continues, sensitive plant and wildlife species native to the region and their habitat, including state and federally listed species, will be lost through conversion of existing open space

to urban development. With continued conversion of natural habitat to human use, the availability and accessibility of remaining foraging and natural habitats in this ecosystem would dwindle, and those remaining natural areas may not be able to support additional plant or wildlife populations. The conversion of plant and wildlife habitat on a regional level as a result of cumulative development would potentially result in a regionally significant cumulative impact on special-status species and their habitats.

However, all development projects are required to comply with federal, state, and local regulations, including but not limited to those identified under Regulatory Context above. In addition, all projects are required to implement appropriate BMPs to control erosion and sedimentation and prevent damage to streams, watercourses, and aquatic habitat, and must implement appropriate mitigation measures to reduce project-specific impacts. Compliance with the conditions of resource agency permits, implementation of BMPs for spill prevention and erosion control, and implementation of **MM 4.4.1 through MM 4.4.7** would avoid, reduce, or mitigate potential impacts to biological resources. These measures ensure that the proposed project's contribution to cumulative regional impacts to biological resources would be ***less than significant.***

MITIGATION

MM 4.4.1 To avoid impacts to active bat maternity colonies, tree removal for trees of 12" diameter at breast height (DBG) or higher shall occur only during the following time frames and subject to the following weather conditions, or as otherwise approved/recommended by a qualified bat biologist:

- Between March 1 (or after evening temperatures rise above 45°F, and/or no more than ½" of rainfall within 24 hours occurs), and April 15; and
- Between September 1 and October 15 (or before evening temperatures fall below 45°F, and/or more than ½" of rainfall within 24 hours occurs).

MM 4.4.2 Trees greater than 12" DBH shall be removed using a two-step process to allow bats the opportunity to abandon the roost prior to removal. The two-step removal process shall be as follows:

- Day 1: Remove small-diameter trees, brush, and non-habitat features of large trees (branches without cavities, crevices, or exfoliating bark), using chainsaws for cutting, and chippers wherever possible to cause a level of noise and vibration disturbance sufficient to cause bats to choose not to return to the tree for a few days after they emerge to forage.
- Day 2: Remove the remainder of the trimmed tree.

MM 4.4.3 To prevent impacts to special-status bumble bees, the following steps shall be implemented, in accordance with CDFW guidelines:

a. A qualified biologist shall conduct surveys for special-status bumble bees during the peak months of colony flight season (April to September) prior to the start of construction. Three on-site surveys shall be conducted two to four weeks apart.

b. Bumble bees shall be captured, photographed, and placed in ice coolers for the duration of the survey to ensure that no single bee is photographed twice. Bees shall be released within 100 meters of the capture site after the survey is completed.

c. Species shall be identified where possible, and photographs/habitat information will be submitted to Bumble Bee Watch/California Department of Fish and Wildlife (CDFW) for further investigation.

d. If any special-status bumble bee species are identified on-site, CDFW shall be contacted for further guidance on continuing project implementation with special-status bees present. Potential impacts shall be analyzed, and a Mitigation Plan offsetting said potential impacts shall be developed and submitted to CDFW for approval. Once approved, the Mitigation Plan and included mitigation measures shall be implemented during the construction period.

MM 4.4.4 In order to avoid impacts to nesting birds and raptors protected under the federal Migratory Bird Treaty Act and California Fish and Game Code §3503 and §3503.5, including their nests and eggs, one of the following shall be implemented:

a. Vegetation removal and other ground-disturbance activities associated with construction shall occur between September 1 and January 31 when birds are not nesting; or

b. If vegetation removal or ground disturbance activities occur during the nesting season (February 1 – August 31), a pre-construction nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area.

   Surveys shall begin prior to sunrise and continue until vegetation and nests have been sufficiently observed. The survey shall take into account acoustic impacts and line-of-sight disturbances occurring as a result of the project in order to determine a sufficient survey radius to avoid nesting birds. At a minimum, the survey report shall include a description of the area surveyed, date and time of the survey, ambient conditions, bird species observed in the area, a description of any active nests observed, any evidence of breeding behaviors (e.g., courtship, carrying nest materials or food, etc.), and a description of any outstanding conditions that may have impacted the survey results (e.g., weather conditions, excess noise, the presence of predators, etc.).

   The results of the survey shall be submitted electronically to the California Department of Fish and Wildlife at R1CEQARedding@wildlife.ca.gov upon completion. The survey shall be conducted no more than one week prior to the initiation of construction. If construction activities are delayed or suspended for more than one week after the pre-construction survey, the site shall be resurveyed.

   If active nests are found, appropriate actions shall be implemented to ensure compliance with the Migratory Bird Treaty Act and California Fish and Game Code. Compliance measures may include, but are not limited to, exclusion buffers, sound-attenuation measures, seasonal work closures based on the known biology and life history of the species identified in the survey, as well as ongoing monitoring by biologists.

MM 4.4.5 All improvements at the Ewing Pump Station site shall be installed outside of the exclusion area shown in Figure 4.4-1 in the Initial Study. Prior to the commencement of construction activities, high-visibility indicators such as marking whiskers, pin flags, stakes with flagging tape, or other markers shall be installed along the outer edges of the construction zone adjacent to the wetland. The marker/flag locations shall be determined by a qualified biologist in consultation with the project engineer and the Trinity County Waterworks District. No construction activities (e.g., clearing, grading, trenching, etc.), including vehicle parking and materials stockpiling, shall occur within the marked/flagged area. The exclusionary markers/flags shall be periodically inspected during construction activities to ensure the markers/flags are properly maintained. The markers/flags shall be removed upon completion of work.

MM 4.4.6 The potential for introduction and spread of noxious weeds shall be avoided/minimized by:

a. Using only certified weed-free erosion control materials, mulch, and seed;

b. Limiting any import or export of fill material to material that is known to be weed free; and

c. Requiring the construction contractor to thoroughly inspect and clean construction equipment prior to entering and upon leaving the job site. All equipment and vehicles shall be washed off-site at a commercial facility when possible. If off-site washing is infeasible, an on-site cleaning station shall be set up at a specified location. Either high-pressure water or air shall be used to clean equipment. The cleaning station shall be located away from sensitive biological resources, and wastewater from the cleaning station shall not be allowed to run off the cleaning station site.

   Construction equipment shall be cleaned of dirt and mud that could contain invasive plants, roots, or seeds; tracks, outriggers, tires, and undercarriages shall be carefully washed, with special attention being paid to axles, frames, cross members, motor

mounts, underneath steps, running boards, and front bumper/brush guard assemblies. Other construction vehicles (e.g., pick-up trucks) that will be frequently entering and exiting the site shall be inspected and washed on an as-needed basis.

MM 4.4.7 To prevent the inadvertent entrapment of wildlife, the construction contractor shall ensure that at the end of each workday trenches and other excavations that are over one-foot deep have been backfilled or covered with plywood or other hard material. If backfilling or covering is not feasible, one or more wildlife escape ramps constructed of earth fill or wooden planks shall be installed in the open trench. Pipes shall be inspected for wildlife prior to capping, moving, or placing backfill over the pipes to ensure that animals have not been trapped. If animals have been trapped, they shall be allowed to leave the area unharmed.

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4.5 CULTURAL RESOURCES

Would the project:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

REGULATORY CONTEXT

FEDERAL

Section 106 of the National Historic Preservation Act (NHPA)

Section 106 of the NHPA and its implementing regulations require federal agencies to take into account the effects of their activities and programs on historic properties. A historic property is any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places (NRHP), including artifacts, records, and material remains related to such a property (NHPA Sec. 301[5]). A resource is considered eligible for listing in the NRHP if it meets the following criteria as defined in CFR Title 36, §60.4:

> *The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:*
>
> - *That are associated with events that have made a significant contribution to the broad patterns of our history;*
> - *That are associated with the lives of persons significant in our past;*
> - *That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or*
> - *That has yielded, or may be likely to yield, information important to prehistory or history.*

Sites younger than 50 years, unless of exceptional importance, are not eligible for listing in the NRHP. In addition to meeting at least one of the criteria outlined above, the property must also retain enough integrity to enable it to convey its historic significance. To retain integrity, a property will always possess several, and usually most, of the seven aspects of integrity noted above. If a site is determined to be an eligible or historic property, impacts are assessed in terms of "effects." An undertaking is considered to have an adverse effect if it results in any of the following:

1. Physical destruction or damage to all or part of the property;
2. Alteration of a property;
3. Removal of the property from its historic location;
4. Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
5. Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;

6. Neglect of a property that causes its deterioration; and
7. The transfer, lease, or sale of property out of federal ownership or control without restrictions or conditions to ensure long-term preservation of the property's historic significance.

If a project will adversely affect a historic property, feasible mitigation measures must be incorporated. The State Historic Preservation Officer (SHPO) must be provided an opportunity to review and comment on these measures prior to commencement of the proposed project.

STATE

California Environmental Quality Act (CEQA)

CEQA requires that projects financed by or requiring the discretionary approval of public agencies in California be evaluated to determine potential adverse effects on historical and archaeological resources (California Code of Regulations [CCR], §15064.5). Historical resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, or scientific importance. Pursuant to §15064.5 of the CCR, a property may qualify as a historical resource if it meets any of the following criteria:

1. The resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR).
2. The resource is included in a local register of historic resources, as defined in §5020.1(k) of the Public Resources Code (PRC), or is identified as significant in a historical resources survey that meets the requirements of §5024.1(g) of the PRC (unless the preponderance of evidence demonstrates that the resource is not historically or culturally significant).
3. The lead agency determines that the resource may be a historical resource as defined in PRC §5020.1(j), or §5024.1, or may be significant based on substantial evidence in light of the whole record. Pursuant to PRC §5024.1, a resource may be eligible for inclusion in the CRHR if it:
    - Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
    - Is associated with the lives of persons important in our past;
    - Embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of an important creative individual, or possesses high artistic values; or
    - Has yielded, or may be likely to yield, information important in prehistory or history.

Resources must retain integrity to be eligible for listing on the CRHR. Resources that are listed in or formally determined eligible for listing in the NRHP are included in the CRHR, and thus are significant historical resources for the purposes of CEQA (PRC §5024.1(d)(1)).

A unique archaeological resource means an artifact, object, or site that meets any of the following criteria:

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

LOCAL

Trinity County, Hayfork Community Plan

The 1996 Hayfork Community Plan provides a framework to guide development of public and private projects in the Hayfork area. The plan has been designed to meet the particular needs of the Hayfork

area while also being consistent with the goals and objectives of the County's General Plan. The Hayfork Community Plan includes the following Objective and Policies that apply to the proposed project:

Hayfork Community Plan – Natural Resource		
Objective:	3.2	Protect the aesthetic and cultural resources of the Plan Area
Policies:	3.2a	Encourage public and private landowners to preserve and/or restore historic sites and structures whenever possible.
	3.2b	Discourage public and private landowners from disturbing prehistoric resources when discovered. Work with landowners to identify methods to preserve, record or otherwise preserve prehistoric resources.

DISCUSSION OF IMPACTS

Questions A and B

A Cultural Resources Inventory (CRI) was completed for the proposed project by ENPLAN in September 2023. The study included a records search, Native American consultation, and field evaluation. The records search included review of records at the Northeast Information Center of the California Historical Resources Information System at California State University, Chico (NEIC); National Register of Historic Places (NRHP); California Register of Historical Resources (CRHR); California Inventory of Historic Resources; California Historical Landmarks; California Points of Historical Interest; Native American Heritage Commission (NAHC); and historical maps and aerial photographs.

Area of Potential Effects (APE)

The APE boundaries were devised in consultation with PACE Engineering, based on the project design. The APE includes areas for staging and construction access, as well as sufficient area for construction.

The vertical APE (i.e., associated with the potential for buried cultural resources) is based on the engineering design of the project and reflects the planned depths of the excavations associated with the project. The maximum vertical APE is 20 feet (associated with construction of the new WTP building).

Records Search

Research at the NEIC was conducted on November 18, 2021, and covered an approximate half-mile radius around the APE for previously recorded archaeological sites and for previously conducted surveys. The size and scope of the search area was determined to be sufficient based on the results.

The records search revealed that seven cultural resource studies have been conducted within the search radius, one of which encompassed a portion of the WTP site. There are two previously recorded sites in the search radius; however, neither of the sites is within the project's APE. Review of the NRHP, the CRHR, California Historical Landmarks, and California Points of Historical Interest did not identify any additional resources within the APE.

Native American Consultation

In response to ENPLAN's request for information, on December 29, 2021, the NAHC conducted a search of its Sacred Lands File. The search did not reveal any known Native American sacred sites or cultural resources in the project area. The NAHC provided contact information for several Native American representatives and organizations. On January 28, 2022, ENPLAN contacted Native American tribes that were identified by the NAHC with a request to provide comments on the proposed project.

The Shasta Indian Nation responded on February 2, 2022, stating that the Shasta Indian Nation has no known cultural resources or sites of interest or concern in the project area. The Bear River Band

of the Rohnerville Rancheria responded on February 4, 2022, stating that the project area is outside of their territory.

Follow-up e-mails and telephone calls were placed on July 24, 2023, to the tribal members that were previously identified by the NAHC. The Redding Rancheria responded on August 4, 2023, stating that the project is located in the Trinity area and there is no need to continue consultation with the Redding Rancheria. No other comments or concerns were reported by any Native American representative or organization.

Field Evaluation

A field survey at the WTP location was conducted on March 17, 2022. A field survey at the Ewing pump station was conducted on April 22, 2023. The entire Area of Potential Effects (APE) was surveyed to identify cultural or historical resources that would be potentially affected by the proposed project. During the field evaluation, two cultural resources were noted in the APE:

Hayfork Water Treatment Plant

The WTP consists of eleven structures, eight of which are greater than 50 years old. These are the District office building, a shed behind the District office, the treatment building, the regulation reservoir, three backwash ponds, and the water tank. These structures are all part of the original 1970s construction. The other three buildings have been added in the intervening years and are not historical.

The District office building is of stick-frame, possibly modular, construction. It has a gable roof with composition shingle. It is clad in T1-11 siding and has aluminum, horizontal sliding, single-pane windows. It has been modified over time and has a single addition on the north side. The shed behind the District office is of stick-frame construction and shares the type of siding and roofing with the District office.

The treatment building consists of two concrete-block lower floors and a stick-frame upper floor with the metal clarifier on the north side. The concrete lower floors have no windows and a number of commercial steel exterior doors. The upper floor has fixed-pane metal framed windows.

The regulation reservoir is located immediately above the rest of the water treatment complex on property owned by the U.S. Forest Service (USFS). The District has a land use agreement with the USFS that does not have an expiration date for use and control of this land. The 0.9 million-gallon (MG) reservoir is gunite-lined and original to the WTP.

The three backwash ponds consist of a concrete-lined pond and two unlined ponds used to dry sludge from the concrete pond.

Ewing Pump Station Building

The Ewing Pump Station building is located at the foot of the Ewing Reservoir dam. The Ewing Pump Station was constructed at the time of the Hayfork WTP in the 1970s; therefore, it is an historical-era structure. The building is constructed of sheet metal made of prefabricated metal panels bolted together and sits on an approximately 20- by 24-foot concrete pad that rises a foot above ground level. The door is cut into the south side of the building. The building and all equipment inside have been continuously in use and maintained since construction in the 1970s. The roof appears to be constructed of the same metal panels with the outside faces placed downwards. Two vents sit at the peak of the roof.

Conclusions

As documented in the CRI, neither the WTP nor the Ewing Pump Station building are eligible for listing in the NRHP or CRHR. Therefore, the project would have no impact on a known historic property or historical resource.

According to the USDA, NRCS, there are two soil types in the APE for the WTP site: Crefork-Musserhill complex, 30 to 50 percent slopes, and Hoosimbim gravelly loam, 30 to 50 percent slopes; and one soil type in the APE for the Ewing Pump Station site: Carrcreek gravelly loam, 0 to 2 percent slopes (USDA, 2023). The majority of the work, including all improvements at the WTP site, would occur in areas with Hoosimbim gravelly loam soils.

According to Meyer's soil reference, the Crefork-Musserhill complex and Hoosimbim gravelly loam soils date to the Pre-Quaternary (>1.9 mya). Pre-Quaternary-age soils are too old and generally too erosional to harbor buried cultural resources (Meyer, 2013). Carrcreek gravelly loam dates to the Late Pleistocene (25,000-15,000 BP). Late Pleistocene soils have a low potential to harbor buried cultural resources. Based on the geomorphological and topographic characteristics of the project site, the results of the records and literature search, and the age of soils mapped in the area, the project site is considered to have a low potential for surface and buried cultural resources. **MM 4.5.1** addresses the inadvertent discovery of cultural resources and ensures that impacts are ***less than significant***.

Question C

The project area does not include any known cemeteries, burial sites, or human remains. However, it is possible human remains may be unearthed during construction activities. **MM 4.5.2** ensures if human remains are discovered, there shall be no further excavation or disturbance of the site until the County coroner has been contacted and has made the necessary findings as to origin and disposition in accordance with §15064.5(e) of the CEQA Guidelines. Therefore, impacts are ***less than significant***.

CUMULATIVE IMPACTS

Cumulative projects in the vicinity of the project area have the potential to impact cultural resources. Archaeological and historic resources are afforded special legal protections designed to reduce the cumulative effects of development. Cumulative projects and the proposed project are subject to the protection of cultural resources afforded by the CEQA Guidelines §15064.5 and related provisions of the PRC. In addition, projects with federal involvement would be subject to Section 106 of the NHPA.

Given the non-renewable nature of cultural resources, any impact to protected sites could be considered cumulatively considerable. As discussed above, **MM 4.5.1 and MM 4.5.2** address the inadvertent discovery of cultural resources and/or human remains during construction. Because all development projects in the State are subject to the same measures pursuant to PRC §21083.2 and CEQA Guidelines §15064.5., the proposed project's cumulative impact to cultural resources is less than significant.

MITIGATION

MM 4.5.1 In the event of any inadvertent discovery of cultural resources (i.e., burnt animal bone, midden soils, projectile points or other humanly modified lithics, historic artifacts, etc.), all work within 50 feet of the find shall be halted until a professional archaeologist can evaluate the significance of the find in accordance with PRC §21083.2(g) and §21084.1, and CEQA Guidelines §15064.5(a). If any find is determined to be significant by the archaeologist, the Trinity County Waterworks District No. 1 (District) shall meet with the archaeologist to determine the appropriate course of action. If necessary, a Treatment Plan prepared by an archeologist outlining recovery of the resource, analysis, and reporting of the find shall be prepared. The Treatment Plan shall be reviewed and approved by the District prior to resuming construction.

MM 4.5.2 In the event that human remains are encountered during construction activities, the Trinity County Waterworks District No. 1 shall comply with §15064.5 (e) (1) of the CEQA Guidelines and PRC §7050.5. All project-related ground disturbance within 100 feet of the find shall be halted until the County coroner has been notified. If the coroner determines that the remains are Native American, the coroner will notify the NAHC to identify the most likely descendants of the deceased Native Americans. Project-related ground disturbance in the vicinity of the find shall not resume until the process detailed in §15064.5 (e) has been completed.

DOCUMENTATION

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Meyer, Jack. 2013. A Geoarchaeological Overview and Assessment of Northeast California: Cultural Resources Inventory of Caltrans District 2 Rural Conventional Highways: Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama, and Trinity Counties, Vols. 1-2. Far Western Anthropological Research Group, Inc.

U.S Department of Agriculture, Natural Resource Conservation Service. 2023. Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed May 2023.

4.6 ENERGY

Would the project:

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

REGULATORY CONTEXT

There are no federal or local regulations pertaining to energy that apply to the proposed project.

STATE

California Environmental Quality Act (CEQA)

Section 15126.2(b) of the CEQA Guidelines states that if analysis of a project's energy use reveals that the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources, the effects must be mitigated. The Guidelines provide suggestions of topics that may be included in the energy analysis, including identification of energy supplies that would serve the project and energy use for all project phases and components. In addition to building code compliance, other relevant considerations may include the project's size, location, orientation, equipment use and any renewable energy features that could be incorporated into the project.

Renewables Portfolio Standard

In 2002, SB 1078 was passed to establish the State's Renewables Portfolio Standard (RPS) Program, with the goal of increasing the amount of electricity generated and sold to retail customers from eligible renewable energy resources. The initial goal was to increase the percentage of renewable energy in the State's electricity mix to 20 percent of retail sales by 2017. SB 350 (2015) codified a target of 50 percent renewable energy by 2030, and requires California utilities with an average load greater than 700 GWh to develop integrated resource plans that incorporate a GHG emission reduction planning component beginning January 1, 2019.

Senate Bill 100 (2018), The 100 Percent Clean Energy Act

SB 100 (2018) was signed by the Governor on September 10, 2018, and established new standards for the RPS goals established by SB 350 (2015). The new standards established by SB 100 increased previously established RPS goals to now require 60 percent renewable energy by 2030 and 100 percent renewable energy by 2045 for both investor-owned utilities and publicly owned utilities. Interim targets require that energy providers have a renewable energy supply of 44 percent by 2024 and 52 percent by 2027.

In-Use Off-Road Diesel-Fueled Fleets Regulation

CARB adopted the In-Use Off-Road Diesel-Fueled Fleets Regulation to reduce NO_X, diesel particulate matter, and other criteria pollutant emissions from various vehicles subject to the regulation. The regulation covers a wide range of vehicle types, including, but not limited to, vehicles used in construction, mining, industrial operations, and other industries. The regulations were most recently updated in August 2023 and became effective on October 1, 2023 (CARB, 2023).

The regulations require fleets to phase-out use of the oldest and highest polluting off-road diesel vehicles in California earlier or beyond what was required of fleets in the previous Off-Road Regulation. The

amended regulations will be phased in starting in 2024 through the end of 2036. Beginning January 1, 2024, the updated regulations also require the use of renewable diesel (99 or 100 percent renewable) in all vehicles that are subject to the regulation, subject to certain exemptions.

The amended regulations require that beginning January 1, 2024, public agencies that award or enter into contracts for public works projects obtain fleet Certificates of Reported Compliance from fleets prior to awarding public works contracts. These requirements will ensure that only compliant fleets are being used on public works projects. CARB estimates that from 2024 through 2038, the amendments will generate an additional reduction above and beyond the previous regulation of approximately 31,087 tons of NO_X and 2,717 tons of $PM_{2.5}$ (CARB, 2022). About half of those additional reductions are expected to be realized within the first five years of implementation.

California Building Standards Code

Title 24 of the CCR, also known as the California Building Standards Code (CBSC), is based on the International Building Code used widely throughout the country. The CBSC has been modified for California conditions to include more detailed and/or more stringent regulations. The CBSC consists of 13 parts, including the California Building Code, Energy Code, and Green Building Standards Code.

The California Energy Code (Part 6 of the CBSC), also known as the State's Energy Efficiency Standards, was established by the California Building Standards Commission in 1978 with a goal of reducing California's energy consumption for residential and nonresidential buildings. The Standards include mandatory measures related to building envelopes, mechanical systems, indoor and outdoor lighting, and electrical power distribution.

The California Green Building Code (CALGreen Code) requires new residential and commercial buildings to comply with mandatory measures related to planning and design, energy efficiency, water efficiency/ conservation, material conservation, resource efficiency, and environmental quality. Although it was adopted as part of the State's efforts to reduce GHG emissions, the CALGreen Code has the added benefit of reducing energy consumption from residential and nonresidential buildings that are subject to the Code.

Warren-Alquist Act (1974)

The Warren-Alquist Act established the California Energy Resources Conservation and Development Commission (California Energy Commission) in 1974 to respond to the energy crisis of the early 1970s and the State's unsustainable growing demand for energy resources. The Act established State policy focused on reducing the wasteful, unnecessary, and uneconomical uses of energy by employing a range of measures. The Act is regularly updated, and the Energy Commission publishes an updated version of the Act annually (CEC, 2023).

DISCUSSION OF IMPACTS

Questions A and B

Construction-Related Energy Use

Energy consumption during construction would occur primarily from the use of fuels for construction equipment, haul trucks, and construction workers travelling to and from the work site. As stated under Regulatory Context, the In-Use Off-Road Diesel-Fueled Fleets Regulation applies to off-road heavy-duty diesel vehicles in California, including vehicles used in construction. The regulation imposes limits on idling, restricts adding older vehicles into fleets, and requires that fleet owners reduce their emissions by retiring, replacing, repowering, or retrofitting older engines.

Additional requirements, including the requirement to use renewable diesel fuel in off-road diesel vehicles, will be phased in starting in 2024 through the end of 2036 (CARB, 2023). Compliance with existing regulations ensures that impacts during construction would be ***less than significant.***

Operational Energy Use

The proposed project would result in an increase in energy use due to operation of the new WTP

building, water treatment equipment, water storage tank, backwash storage tank, backwash recycle pump station, and SCADA technology. However, design of the project would be in conformance with the CBSC, including the energy efficiency standards included in the California Energy Code and CALGreen. In addition, the proposed project would replace aging infrastructure, improve filter capability, and improve technology and pumps for backwash water reuse thereby reducing leaks and reducing the amount of water being pumped from Ewing Reservoir and used for backwashing the filters. These improvements will result in a reduction in the amount of energy used during the water filtration process.

The use of fuel-efficient equipment during construction, compliance with State building codes, and installation of energy efficient equipment and facilities ensures that energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary, and that the project would not conflict with or obstruct a plan for renewable energy or energy efficiency. Therefore, impacts associated with energy use would be ***less than significant.***

CUMULATIVE IMPACTS

Completion of the proposed project and other potential cumulative projects in the region, including growth resulting from build-out of the County's General Plan, could result in potentially significant impacts due to the wasteful, inefficient, or unnecessary consumption of energy resources. However, all new development projects in the State are required to comply with State regulations that require the use of fuel-efficient equipment during construction. In addition, new construction must comply with energy efficiency standards included in the CBSC. Compliance with State regulations ensures that the proposed project's cumulative impacts on energy resources would be less than significant.

MITIGATION

None necessary.

DOCUMENTATION

California Air Resources Board. 2023. In-Use Off-Road Diesel-Fueled Fleets, Final Regulation Order (Rulemaking Website). https://ww2.arb.ca.gov/rulemaking/2022/off-roaddiesel. Accessed August 2023.

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California Building Standards Commission. 2022. 2022 California Green Building Standards Code. https://www.dgs.ca.gov/BSC/Codes. Accessed April 2023.

California Energy Commission. 2023. Warren-Alquist State Energy Resources Conservation and Development Act, 2023 Edition. https://www.energy.ca.gov/rules-and-regulations/warren-alquist-act. Accessed May 2023.

4.7 GEOLOGY AND SOILS

Would the project:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death, involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☒	☐	☐
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☒	☐	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☒	☐	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☒	☐
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

REGULATORY CONTEXT

FEDERAL

National Earthquake Hazards Reduction Act

The National Earthquake Hazards Reduction (NEHR) Act was passed in 1977 to reduce the risks to life and property from future earthquakes in the United States. The Act established the National Earthquake Hazards Reduction Program, which was most recently amended in 2004. The Federal Emergency Management Agency (FEMA) is designated as the lead agency of the program.

Paleontological Resources Preservation Act

The federal Paleontological Resources Preservation Act of 2002 limits the collection of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers who have obtained federal and/or state agency permits and agree to donate any recovered materials to recognized public institutions, where they will remain accessible to the public and to other researchers. The Act incorporates key findings of a report, *Fossils on Federal Land and Indian Lands*, issued by the Secretary of the Interior in 2000, that established that most vertebrate fossils and some invertebrate and plant fossils are considered rare resources.

STATE

California Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (PRC §2621 *et seq.*) was passed in 1972 to reduce the risk to life and property from surface faulting in California. The Act prohibits the siting of most structures intended for human occupancy on the surface trace of active faults. Before a project can be permitted in a designated Alquist-Priolo Fault Study Zone, a geologic investigation must be prepared to demonstrate that proposed buildings would not be constructed across active faults.

California Seismic Hazards Mapping Act

The California Seismic Hazards Mapping Act (SHMA) of 1990 (PRC §2690–2699.6) addresses non-surface fault rupture earthquake hazards, including strong ground shaking, liquefaction and seismically induced landslides. The SHMA also addresses expansive soils, settlement, and slope stability. Under the SHMA, cities and counties may withhold development permits for sites within seismic hazard areas until geologic/geotechnical investigations have been completed and measures to reduce potential damage have been incorporated into development plans.

California Building Standards Code

Title 24 of the CCR, also known as the California Building Standards Code (CBSC), provides minimum standards for building design and construction, including excavation, seismic design, drainage, and erosion control. The CBSC is based on the International Building Code (IBC) used widely throughout the country. The CBSC has been modified for California conditions to include more detailed and/or more stringent regulations.

Protection of Paleontological Resources

Under CEQA, a project is considered to have a significant impact on paleontological resources if it would disturb or destroy a unique paleontological resource or site or unique geologic feature. In addition, Public Resources Code (PRC) Section 5097.5 provides for the protection of paleontological resources. Local agencies are required to comply with PRC 5097.5 when the agency has discretionary authority over a project undertaken by others (e.g., issuance of use permits, grading permits, etc.).

LOCAL

Trinity County General Plan, Safety Element

The Safety Element of the County's General Plan was adopted in 2014 to provide guidelines to promote safety to residents and visitors of Trinity County; and, to reduce the potential risk of death, injuries, property damage, and the economic and social disruptions resulting from hazards such as fires, floods, earthquakes, landslides, and other hazards. The Safety Element includes the following Goal, Objective, and Policies that apply to the proposed project:

Trinity County General Plan – Safety Element		
Goal:	S.4	Reduce the threat to life and property from seismic or geologic hazards.
Objective:	S.4.1	Promote safety from seismic or geologic hazards.
Policies:	S.4.1 (a)	Geotechnical reports and/or related studies shall be required for all subdivision proposals in areas of known landslides or other geologic instability.
	S.4.1 (b)	Geologic hazards and seismic safety shall be considered in the preparation of environmental documents as required by the California Environmental Quality Act.
	S.4.1 (c)	Building design and construction shall promote seismic safety and structural integrity.

	S.4.1 (d)	Areas in excess of 30 percent slope shall require submittal of engineered plans for all construction and grading, at the discretion of the Trinity County Planning Department. These plans shall address roads, utility corridors, and similar off-site improvements, as well as erosion control.
	S.4.1 (e)	Geotechnical studies by a California Registered Geologist, Civil Engineer or Soils Engineer shall be required prior to issuance of a building permit in all identified landslide areas.
	S.4.1 (f)	Construction and grading activities shall be done in a manner that minimizes adverse effects on the stability of any slope.
	S.4.1 (g)	The County shall not allow development on existing unconsolidated landslide debris.
	S.4.1(h)	Building design and construction shall consider soil conditions prior to development.

Trinity County, Hayfork Community Plan

The 1996 Hayfork Community Plan provides a framework to guide development of public and private projects in the Hayfork area. The plan has been designed to meet the particular needs of the Hayfork area while also being consistent with the goals and objectives of the County's General Plan. The Hayfork Community Plan includes the following Goal, Objectives, and Policy that apply to the proposed project:

Hayfork Community Plan – Hazards		
Goal:	2	Protect people, property, and public and private investments from naturally occurring hazards.
Objectives:	2.1	Reduce potential for loss of life and property from earthquakes and associated hazards.
	2.2	Reduce potential for loss of life and property associated with unstable slopes and unstable soils.
Policy:	2.2a	Development proposals on steep slopes shall be discouraged and shall be prohibited on known landslide areas.

DISCUSSION OF IMPACTS

Question A

i and ii)

According to the California Department of Conservation (DOC), the nearest Alquist Priolo Study Zone is the Little Salmon Fault Zone, ~45 miles west of the project site (DOC, 2023a). Additionally, CDC records show that the nearest active faults to the project site are the Trinidad Fault and Blue Lake Fault, ~39 miles to the northwest. The nearest potentially active fault is the Grogan Fault, ~19 miles to the southwest (DOC, 2023b).

According to the Geotechnical Exploration Report prepared by KC Engineering Company in August 2021 (KC Engineering, 2021), there are no known active faults crossing the site and no potential for fault-related surface rupture at the project site. However, the Hayfork area is located in a moderate seismically-active region and earthquake-related ground shaking should be expected during the design life of structures constructed on the site.

The KC Engineering Geotechnical Report includes a seismic design evaluation completed in accordance with California Building Code (CBC) requirements, and recommendations for foundations, mat slabs, footings, and setbacks from slopes to minimize the risk of losses, injury, or death related to seismic activity. The Geotechnical Report also states that field observations by a geotechnical engineer should be provided to ensure that recommendations from the

Geotechnical Report are implemented. An addendum to the Geotechnical Report will be prepared as necessary to reflect the final project plans.

To ensure that recommendations included in the final KC Engineering Geotechnical Report are incorporated into the project design, **MM 4.7.1** requires that grading and foundation plans must be reviewed by a qualified professional to ensure that the recommendations are implemented. **MM 4.7.2** requires that work activities are monitored and inspected as recommended in the final Geotechnical Report. Implementation of **MM 4.7.1 and MM 4.7.2** ensures that impacts associated with seismic activity and seismic-related ground failure, including liquefaction, would be ***less than significant.***

iii and iv)

See discussion under Questions A i) and ii) above. Liquefaction results from an applied stress on the soil, such as earthquake shaking or other sudden change in stress condition, and is primarily associated with saturated, cohesionless soil layers located close to the ground surface. During liquefaction, soils lose strength and ground failure may occur. Building foundations can sink, break apart or tilt, and gravity-fed pipelines can back up. This is most likely to occur in alluvial (geologically recent, unconsolidated sediments) stream channel deposits, and glacial outwash deposits, especially when the groundwater table is high.

According to the Geotechnical Report, exploratory soil borings encountered loose clayey sand with gravel and organics underlain by medium to very dense reddish brown clayey gravel with sand and cobble at the near surface soils. Groundwater was not encountered at any of the test borings. Based on the type of soil encountered, the Geotechnical Report concluded that the potential for liquefaction-related hazards on site is unlikely.

A landslide is a mass of rock, earth, or debris moving down a slope. Landslides are most likely to occur in steep areas with weak rocks where the soil is saturated from heavy rains or snowmelt. According to the Geotechnical Report, the proposed improvements at the WTP site are located in an area with hillside natural grades and steep cut slopes. Additionally, construction of the proposed improvements involves cut grading to create relatively level building pads. To ensure the risk of impacts due to landslides is low, the project design plans include the construction of retaining walls along the northeast edge of the proposed water treatment building and northwest of the building. The Geotechnical Report provides recommendations regarding design of the retaining walls, including the installation of a drainage filter blanket and drain pipe. The 90 percent design plans incorporate recommendations for the retaining walls and drainage as included in the Geotechnical Report.

Therefore, because the risk for liquefaction is low and **MM 4.7.1 and MM 4.7.2** ensure that recommendations from the Geotechnical Report are incorporated, impacts would be ***less than significant.***

Question B

Construction of the proposed project would involve excavation, grading activities, and installation of project components, which would result in the temporary disturbance of soil and would expose disturbed areas to potential storm events. This could generate accelerated runoff, localized erosion, and sedimentation. In addition, construction activities could expose soil to wind erosion that could adversely affect on-site soils and the revegetation potential of the area.

The Geotechnical Report provides recommendations for cut and fill slopes including erosion protection, hydro-seeding, and slope planting. In addition, as discussed in Section 4.10, Hydrology and Water Quality, BMPs would be implemented to control erosion and sedimentation and prevent damage to streams, watercourses, and aquatic habitats. BMPs may include, but are not limited to, limiting construction to the dry season; use of straw wattles, silt fences, and/or gravel berms to prevent sediment from discharging to waterways; and revegetating temporarily disturbed sites upon completion of construction.

Because BMPs for erosion and sediment control would be implemented in accordance with existing requirements, and **MM 4.7.1 and MM 4.7.2** ensure that recommendations from the Geotechnical Report are implemented, the potential for soil erosion and loss of topsoil would be ***less than significant.***

Questions C and D

See discussion under Question A and B above. Unstable soils consist of loose or soft deposits or sands, silts, and clays. Expansive soils generally contain clays that swell when they absorb water and shrink when they dry out. When expansive soils swell, the change in volume can exert pressure on loads that are upon them.

According to the Geotechnical Report, the primary geotechnical considerations for the site are the presence of highly expansive near surface clay soils located on slopes within the project site. Underlying clay material was tested and found to be highly expansive with a potential for shrink-swell volume changes due to seasonal moisture fluctuations and irrigation.

In addition, undocumented loose fill with construction debris in the project site has a potential to result in unstable conditions without proper grading. With consideration of these conditions, the Geotechnical Report includes recommendations for site clearing, grading methods, engineered fill, drainage improvements, slope stabilization, foundation systems for buildings and tank structures, and retaining walls. Because **MM 4.7.1 and MM 4.7.2** ensure that recommendations from the Geotechnical Report are incorporated into the construction plans, and a geotechnical engineer will complete field observations as recommended in the Geotechnical Report, potential impacts associated with unstable and expansive soils would be ***less than significant.***

Question E

Proposed improvements include the installation of an Onsite Wastewater Treatment System (OWTS). The OWTS would consist of a septic tank, and one leach field southeast of the water tank. The septic system and leach field would be designed and constructed in accordance with Trinity County standards for OWTS (Trinity County, 2023). The KC Engineering study included percolation testing in the leach field area. There is no indication in the Geotechnical Report that soils on the project site would be incapable of supporting the OWTS. Further, results of soil testing and percolation tests will be verified by the Trinity County Environmental Health Division prior to issuance of a permit for the OWTS. Therefore, potential impacts associated with the septic system and leach field would be ***less than significant.***

Question F

Paleontological resources include fossils and deposits that contain fossils. Fossils are evidence of ancient life preserved in sediments and rock, such as the remains of animals, animal tracks, plants, and other organisms; as such, they are a non-renewable resource. Fossils are found primarily embedded in sedimentary rocks, mostly shale, limestone, and sandstone. With rare exceptions, metamorphic and igneous rocks have undergone too much heat and pressure to preserve fossils; however, when ash from volcanic eruptions buries the surrounding area, the ash sometimes encapsulates organisms.

According to the U.C. Berkeley Museum of Paleontology (UCBMP), 1,084 fossil specimens have been reported in 97 localities in Trinity County (UCBMP, n.d.a, n.d.b); however, specific locations of these sites are not disclosed to the public. According to the California Geological Survey, the geology of the project area consists of Oligocene period and Pleistocene-Holocene period marine and nonmarine sedimentary rocks (DOC, 2015). Because paleontological resources and fossils are found primarily within sedimentary rock deposits, fossilized paleontological resources may be present in the project area. The project area has no unique geological features; however, there is a possibility that unanticipated paleontological resources could be encountered during ground-disturbing project-related activities. **MM 4.7.3** addresses the inadvertent discovery of paleontological resources and ensures that impacts are ***less than significant***.

CUMULATIVE IMPACTS

Completion of the proposed project and other potential cumulative projects in the region could result in increased erosion and soil hazards and could expose additional structures and people to seismic hazards. In addition, ground disturbance has the potential to destroy paleontological resources.

As discussed above, all development projects in the County are required to obtain coverage under the NPDES permit for *Discharges of Storm Water Runoff Associated with Construction Activity* by submitting a Notice of Intent to the SWRCB and implementing a SWPPP that includes BMPs to minimize erosion. In addition, pursuant to existing State regulations, incorporation of CBC seismic design criteria and engineering design measures are required for all new development projects. Implementation of **MM 4.7.1**, **MM 4.7.2**, and **MM 4.7.3** ensures that the project's impacts are not cumulatively considerable.

MITIGATION

MM 4.7.1 Prior to approval of the final improvement plans for the project, the Geotechnical Exploration Report prepared by KC Engineering in August 2021 shall be updated as necessary to reflect the final project design. All grading plans and foundation plans shall be reviewed by a qualified professional to ensure that all recommendations included in the final KC Engineering Geotechnical Report are implemented. Applicable notes shall be placed on the attachment sheet to the improvements plans and in applicable project plans and specifications.

If significant engineering design changes occur during construction, the Trinity County Waterworks District shall consult with a qualified geotechnical engineer to identify any geotechnical constraints related to the design changes. Recommendations of the geotechnical engineer shall be implemented as warranted.

MM 4.7.2 Trinity County Waterworks District shall ensure through contractual obligations that earthwork activities are monitored by a qualified professional to ensure that recommendations included in the final KC Engineering Geotechnical Report are implemented.

MM 4.7.3 If paleontological resources (fossils) are discovered during construction, all work within a 50-foot radius of the find shall be halted until a professional paleontologist can evaluate the significance of the find. If any find is determined to be significant by the paleontologist, Trinity County Waterworks District (District) representatives shall meet with the paleontologist to determine the appropriate course of action. If necessary, a Treatment Plan prepared by a paleontologist outlining recovery of the resource, analysis, and reporting of the find shall be prepared. The Treatment Plan shall be reviewed and approved by the District prior to resuming construction.

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4.8 GREENHOUSE GAS EMISSIONS

Would the project:

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

REGULATORY CONTEXT

FEDERAL

U.S. Environmental Protection Agency

On April 2, 2007, in *Massachusetts v. EPA,* 549 U.S. 497 (2007), the Supreme Court found that greenhouse gas emissions (GHGs) are air pollutants covered by the federal Clean Air Act (CAA). In reaching its decision, the Court also acknowledged that climate change is caused, in part, by human activities. The Supreme Court's ruling paved the way for the regulation of GHG emissions by the USEPA under the CAA. The USEPA has enacted regulations that address GHG emissions, including, but not limited to, mandatory GHG reporting requirements, carbon pollution standards for power plants, and air pollution standards for oil and natural gas production.

STATE

California Executive Order (EO) S-3-05

EO S-03-05 was signed by the Governor on June 1, 2005, and established the goal of reducing statewide GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

Assembly Bill 32 (Global Warming Solutions Act of 2006)

As required by AB 32 (2006), CARB adopted the initial Climate Change Scoping Plan in 2008 that identified the State's strategy to achieve the 2020 GHG emissions limit via regulations, market-based mechanisms, and other actions. AB 32 requires that the Scoping Plan be updated every five years. CARB's first update to the Climate Change Scoping Plan (2014) addressed post-2020 goals and identified the need for a 2030 mid-term target to establish a continuum of actions to maintain and continue reductions. Executive Order B-30-15 (2015) extended the goal of AB 32 and set a GHG reduction goal of 40 percent below 1990 levels by 2030. In December 2017, CARB adopted the second update to the Scoping Plan that includes strategies to achieve the 2030 mid-term target and substantially advance toward the 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels.

The 2017 Scoping Plan Update recommends that local governments aim to achieve a community-wide goal of no more than 6 MT CO_2e per capita by 2030 and no more than 2 MT CO_2e per capita by 2050, which is consistent with the State's long-term goals.

California Executive Order B-55-18

EO B-55-18 was issued by the Governor on September 10, 2018. It sets a statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets.

2022 Scoping Plan for Achieving Carbon Neutrality

On November 16, 2022, the 2022 Scoping Plan for Achieving Carbon Neutrality was published by CARB (CARB, 2022a). The Plan lays out the sector-by-sector plan that outlines a technologically feasible, cost-effective, and equity-focused path to achieve the State's climate target. The 2022 Plan extends and expands upon earlier plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045, and also outlines how carbon neutrality can be achieved by meeting the anthropogenic emissions target and by expanding actions to capture and store carbon through the State's natural and working lands and implementing mechanical approaches (e.g., capture at point sources and direct removal from the atmosphere through direct air capture).

Senate Bill 32/Assembly Bill 197 (2016)

As set forth in EO B-30-15, SB 32 requires CARB to reduce GHG emissions to 40 percent below the 1990 levels by 2030. AB 197 requires CARB to prioritize direct GHG emission reductions in a manner that benefits the state's most disadvantaged communities and to consider social costs when adopting regulations to reduce GHG emissions.

Renewables Portfolio Standard

In 2002, SB 1078 was passed to establish the State's Renewables Portfolio Standard (RPS) Program, with the goal of increasing the amount of electricity generated and sold to retail customers from eligible renewable energy resources. The initial goal was to increase the percentage of renewable energy in the state's electricity mix to 20 percent of retail sales by 2017. SB 350 (2015) codified a target of 50 percent renewable energy by 2030 and requires California utilities with an average load greater than 700 GWh to develop integrated resource plans that incorporate a GHG emission reduction planning component beginning January 1, 2019.

Senate Bill 100 (2018), The 100 Percent Clean Energy Act

SB 100 (2018) was signed by the Governor on September 10, 2018, and established new standards for the RPS goals established by SB 350 (2015). The new standards established by SB 100 increased previously established RPS goals to now require 60 percent renewable energy by 2030 and 100 percent renewable energy by 2045 for both investor-owned utilities and publicly owned utilities. Interim targets require that energy providers have a renewable energy supply of 44 percent by 2024 and 52 percent by 2027.

Senate Bill 375 (Sustainable Communities and Climate Protection Act of 2008)

Under SB 375, the CARB sets regional targets for the reduction of GHG emissions from passenger vehicles and light duty trucks. Each Metropolitan Planning Organization (MPO) in the State, or Regional Transportation Planning Agency for regions without a MPO, must include a Sustainable Communities Strategy in the applicable Regional Transportation Plan that demonstrates how the region will meet the GHG emissions reduction targets.

Mobile Source Strategy

CARB's 2020 Mobile Source Strategy (Strategy) describes the State's strategy for containing air pollutant emissions from vehicles, and quantifies growth in vehicle miles traveled that is compatible with achieving state climate targets (CARB, 2021). The Strategy demonstrates how the State can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risks from transportation emissions, and reduce petroleum consumption over the next fifteen years.

In-Use Off-Road Diesel-Fueled Fleets Regulation

CARB adopted the In-Use Off-Road Diesel-Fueled Fleets Regulation to reduce NO_X, diesel particulate matter, and other criteria pollutant emissions from various vehicles subject to the regulation. The regulation covers a wide range of vehicle types, including, but not limited to, vehicles used in construction, mining, industrial operations, and other industries. The regulations were most recently updated in August 2023 and became effective on October 1, 2023 (CARB, 2023).

The regulations require fleets to phase-out use of the oldest and highest polluting off-road diesel vehicles in California earlier or beyond what was required of fleets in the previous Off-Road Regulation. The amended regulations will be phased in starting in 2024 through the end of 2036. Beginning January 1, 2024, the updated regulations also require the use of renewable diesel (99 or 100 percent renewable) in all vehicles that are subject to the regulation, subject to certain exemptions.

The amended regulations require that beginning January 1, 2024, public agencies that award or enter into contracts for public works projects obtain fleet Certificates of Reported Compliance from fleets prior to awarding public works contracts. These requirements will ensure that only compliant fleets are being used on public works projects. CARB estimates that from 2024 through 2038, the amendments will generate an additional reduction above and beyond the previous regulation of approximately 31,087 tons of NO_X and 2,717 tons of $PM_{2.5}$ (CARB, 2022b). About half of those additional reductions are expected to be realized within the first five years of implementation.

CEQA Guidelines

§15064.4 of the California Environmental Quality Act (CEQA) Guidelines states that the lead agency should focus its GHG emissions analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A lead agency has the discretion to determine whether to use a model or methodology to quantify GHG emissions or to rely on a qualitative or performance-based standard.

The GHG analysis should consider: 1) the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting, 2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project, and 3) the extent to which the project complies with any regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an Environmental Impact Report (EIR) must be prepared for the project. To determine transportation-generated greenhouse gas emissions in particular, lead agencies may determine that it is appropriate to use the same method used to determine the transportation impacts associated with a project's VMT.

In *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204, which involved the Newhall Ranch project, the California Supreme Court concluded that a legally appropriate approach to assessing the significance of GHG emissions was to determine whether a project was consistent with "*'performance based standards' adopted to fulfill 'a statewide . . . plan for the reduction or mitigation of greenhouse gas emissions' (CEQA Guidelines §15064.4(a)(2), (b)(3)… §15064(h)(3) [determination that impact is not cumulatively considerable may rest on compliance with previously adopted plans or regulations, including 'plans or regulations for the reduction of greenhouse gas emissions'].)"* (62 Cal.4th at p. 229.)

Greenhouse Gases Defined

Table 4.8-1 provides descriptions of the GHGs identified in California Health and Safety Code §38505(g).

TABLE 4.8-1
Greenhouse Gases

Greenhouse Gas	Description
Carbon dioxide (CO_2)	Carbon dioxide (CO_2) is the primary greenhouse gas emitted through human activities. In 2014, CO_2 accounted for about 80.9 percent of all U.S. greenhouse gas emissions from human activities. The main human activity that emits CO_2 is the combustion of fossil fuels (coal, natural gas, and oil) for energy and transportation, although certain industrial processes and land-use changes also emit CO_2.

Greenhouse Gas	Description
Methane (CH_4)	Methane (CH_4) is the second most prevalent greenhouse gas emitted in the United States from human activities. Methane is emitted by natural sources such as wetlands, as well as human activities such as the raising of livestock; the production, refinement, transportation, and storage of natural gas; methane in landfills as waste decomposes; and in the treatment of wastewater.
Nitrous oxide (N_2O)	In 2014, nitrous oxide (N_2O) accounted for about 6 percent of all U.S. greenhouse gas emissions from human activities. Nitrous oxide is naturally present in the atmosphere as part of the Earth's nitrogen cycle. Human activities such as agricultural soil management (adding nitrogen to soil through use of synthetic fertilizers), fossil fuel combustion, wastewater management, and industrial processes are also increasing the amount of N_2O in the atmosphere.
Hydrofluorocarbons (HFCs)	Hydrofluorocarbons (HFCs) are man-made chemicals, many of which have been developed as alternatives to ozone-depleting substances for industrial, commercial, and consumer products such as refrigerants, aerosol propellants, solvents, and fire retardants. They are released into the atmosphere through leaks, servicing, and disposal of equipment in which they are used.
Perfluorocarbons (PFCs)	Perfluorocarbons (PFCs) are colorless, highly dense, chemically inert, and nontoxic. There are seven PFC gases: perfluoromethane (CF_4), perfluoroethane (C_2F_6), perfluoropropane (C_3F_8), perfluorobutane (C_4F_{10}), perfluorocyclobutane (C_4F_8), perfluoropentane (C_5F_{12}), and perfluorohexane (C_6F_4). Perfluorocarbons are produced as a byproduct of various industrial processes associated with aluminum production and the manufacturing of semiconductors.
Sulfur hexafluoride (SF_6)	Sulfur hexafluoride (SF_6) is an inorganic compound that is colorless, odorless, nontoxic, and generally nonflammable. SF_6 is primarily used in magnesium processing and as an electrical insulator in high voltage equipment. The electric power industry uses roughly 80 percent of all SF_6 produced worldwide.
Nitrogen trifluoride (NF_3)	Nitrogen trifluoride is a colorless, odorless, nonflammable gas that is highly toxic by inhalation. It is one of several gases used in the manufacture of liquid crystal flat-panel displays, thin-film photovoltaic cells and microcircuits.

Source: USEPA, 2023a.

Trinity County General Plan, Safety Element

The Safety Element of the County's General Plan was adopted in 2014 to provide guidelines to promote safety to residents and visitors of Trinity County; and, to reduce the potential risk of death, injuries, property damage, and the economic and social disruptions resulting from hazards such as fires, floods, earthquakes, landslides, and other hazards. The Safety Element includes the following Goal and Policy that apply to the proposed project:

Trinity County General Plan – Safety Element		
Goal:	S.7	Successful mitigation of greenhouse gas (GHG) emissions associated with this Plan to levels of non-significance as established by the Global Warming Solutions Act (AB 32) and subsequently implementing legislation and regulations.
Policy:	S.7.1	Review of Project for Greenhouse Gas Emission Reductions: The County should evaluate the GHG emissions of projects implemented to meet the intent of the Safety Element and require feasible mitigation measures to minimize GHG emissions.

DISCUSSION OF IMPACTS

Question A

Gases that trap heat in the atmosphere create a greenhouse effect that results in global warming and climate change. These gases are referred to as greenhouse gases (GHGs). As described in **Table 4.8-1**, some GHGs occur both naturally and as a result of human activities, and some GHGs are exclusively the result of human activities.

The atmospheric lifetime of each GHG reflects how long the gas stays in the atmosphere before natural processes (e.g., chemical reactions) remove it. A gas with a long lifetime can exert more warming influence than a gas with a short lifetime. In addition, different GHGs have different effects on the atmosphere. For this reason, each GHG is assigned a global warming potential (GWP) which is a measure of the heat-trapping potential of each gas over a specified period of time (USEPA, 2023b).

Gases with a higher GWP absorb more heat than gases with a lower GWP, and thus have a greater effect on global warming and climate change. The GWP metric is used to convert all GHGs into CO_2e units, which allows policy makers to compare impacts of GHG emissions on an equal basis. The GWPs and atmospheric lifetimes for each GHG are shown in **Table 4.8-2**.

TABLE 4.8-2
Greenhouse Gases: Global Warming Potential and Atmospheric Lifetime

GHG	GWP (100-year time horizon)	Atmospheric Lifetime (years)
CO_2	1	100*
CH_4	25	12
N_2O	298	114
HFCs	Up to 14,800	Up to 270
PFCs:	Up to 12,200	2,600 – 50,000
SF_6	22,800	3,200
NF_3	17,200	740

Source: California Air Resources Board (CARB, n.d.)

** No single lifetime can be given for CO_2 because it moves throughout the earth system at differing rates. Some CO_2 will be absorbed very quickly, while some will remain in the atmosphere for thousands of years.*

Thresholds of Significance

As stated under Regulatory Context, §15064.4 of the CEQA Guidelines gives lead agencies the discretion to determine whether to use a model or other method to quantify GHG emissions and/or to rely on a qualitative or performance-based standard. For a quantitative analysis, a lead agency could determine a less-than-significant impact if a project did not exceed an established numerical threshold. For a qualitative/performance-based threshold, a lead agency could determine a less-than-significant impact if a project complies with State, regional, and/or local programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.

If a qualitative approach is used, lead agencies should still quantify a project's construction and operational GHG emissions to determine the amount, types, and sources of GHG emissions resulting from the project. Quantification may be useful in indicating to the lead agency and the public whether emissions reductions are possible, and if so, from which sources. For example, if quantification reveals that a substantial portion of a project's emissions result from mobile sources (automobiles), a lead agency may consider whether design changes could reduce the project's vehicle miles traveled (OPR, 2018).

Neither the District nor County have adopted numerical thresholds of significance or performance-based standards for GHG emissions. Numerical thresholds that have been referenced for other projects in Trinity County include the Bay Area Air Quality Management District's (BAAQMD) threshold of 1,100 MT/year CO2e. In order to assess the potential impact of emissions generated during construction of the proposed project, the construction GHG emissions are amortized over an assumed 30-year project lifespan, added to operational emissions, and compared against a threshold of 1,100 MT/year CO2e.

Project GHG Emissions

GHG emissions resulting from construction and operation of the proposed project were estimated using the CalEEMod.2022.1.1.20 software. CalEEMod is a statewide model designed to quantify GHG emissions from land use projects. The model quantifies direct GHG emissions from construction and operation (including vehicle use), as well as indirect GHG emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use.

CalEEMod also includes the intensity factors for CO_2, CH_4, and N_2O for the utility company that will serve the proposed project. Site-specific inputs and assumptions for the proposed project include, but are not limited to, the following.

- Emissions from construction are based on all construction-related activities associated with the proposed uses, including but not limited to grading, use of construction equipment, material hauling, trenching, site preparation, application of architectural coatings, and paving.
- Emissions from operation of the project are based on proposed operational activities, including vehicle traffic, electricity usage, water treatment, solid waste disposal, use of architectural coatings, etc.
- For purposes of the CalEEMod Analysis, it was assumed that construction would start in the spring of 2025 and occur over a period of approximately one and a half years.
- Total land disturbance would be ~2.8 acres; 12,000 cubic yards (CY) of material would be imported; 12,000 CY would be exported.
- The total area to be paved/re-paved would be 0.1 acres.
- Demolition activities would generate approximately 10 tons of solid waste.
- The total area receiving architectural coatings would be 27,500 square feet.
- The proposed project would result in the conversion of ~2.8 acres of forest land to non-forest use, resulting in the loss of an estimated 256 trees.
- Construction would commence in the spring of 2025 and occur over a period of approximately one and a half years.

Output files, including all site-specific inputs and assumptions, are provided in **Appendix A**.

Construction Emissions

Estimated construction-related GHG emissions are shown in **Table 4.8-3**; the majority of emissions are from the combustion of diesel fuel in heavy equipment.

TABLE 4.8-3
Estimated Construction-Related Greenhouse Gas Emissions

Total Construction Emissions (Metric Tons)					
Year	**Carbon Dioxide (CO_2)**	**Methane (CH_4)**	**Nitrous Oxide (N_2O)**	**Refrigerants**	**Carbon Dioxide Equivalent (CO_2e)**
2025	272	0.01	0.01	0.06	275
2026	208	0.01	Trace	0.01	209
Total	**483**	**0.02**	**0.01**	**0.07**	**484**

Source: CalEEMod, 2023. Note: Totals may not add due to rounding.

Operational Emissions

As stated in Section 4.3 (Air Quality) under Questions A and B, the project's increase in operational emissions over existing levels would be attributed to the addition of electricity and power consumption to operate the new water treatment building, backwash storage tank, water storage tank, and backwash recycle pump station. The generation of electricity through combustion of fossil fuels (e.g., coal, natural gas, and petroleum) produces GHG emissions.

Table 4.8-4 shows the estimated highest daily levels of operational emissions by source. For the proposed project, mobile sources include on-road motor vehicles and off-road engines and equipment used for maintenance activities. Area-wide sources include consumer products, architectural coatings, and road dust. Reporting under "Water" includes increased flows resulting from construction of the new water treatment building. Waste includes increased solid waste generation associated with the project. Energy sources include electricity generated from fossil fuels (indirect emissions) that is used to operate pumps, motors, etc. Stationary sources include the emergency generators. Reporting under "Vegetation" reflects changes in sequestration from land use changes and tree removal/planting. Construction emissions are amortized over a 30-year period, which is considered the minimum service life of the project, and added to the operational emissions.

TABLE 4.8-4
Estimated Annual Operational Greenhouse Gas Emissions

Total Emissions (Metric Tons)					
Source	**Carbon Dioxide (CO_2)**	**Methane (CH_4)**	**Nitrous Oxide (N_2O)**	**Refrigerants**	**Carbon Dioxide Equivalent (CO_2e)**
Mobile	81.9	< 0.005	< 0.005	0.12	83.3
Area	0.16	< 0.005	< 0.005	0	0.16
Energy	44.2	< 0.005	< 0.005	0	44.4
Water	12.6	0.33	0.01	0	23.4
Solid Waste	1.23	0.12	0	0	4.29
Refrigerants	0	0	0	0.48	0.48
Stationary	40.7	Trace	Trace	0	40.8
Vegetation	17.7	0	0	0	17.7

Total Emissions (Metric Tons)					
Source	**Carbon Dioxide (CO_2)**	**Methane (CH_4)**	**Nitrous Oxide (N_2O)**	**Refrigerants**	**Carbon Dioxide Equivalent (CO_2e)**
Amortized Construction Emissions	16.1	Trace	Trace	0.002	16.1
Total	**215**	**0.47**	0.01	**0.60**	**231**

Source: CalEEMod, 2023. Note: Totals may not add due to rounding.

As indicated in **Table 4.8-4,** the project's GHG emissions are negligible in comparison to the referenced numerical threshold of 1,100 MT/year CO_2e. The highest levels of GHG emissions are anticipated to be generated by mobile sources, stationary sources, and energy use.

Electricity for the proposed project would be provided by PG&E. As stated under Regulatory Context, the new standards established by SB 100 (2018) require 60 percent renewable energy by 2030 and 100 percent renewable energy by 2045 for both investor-owned utilities and publicly owned utilities, resulting in a corresponding decrease in GHG emissions. Additionally, the proposed project would replace aging infrastructure, improve filter capability, and improve technology and pumps for backwash water reuse thereby reducing leaks and reducing the amount of water being pumped from the Ewing Reservoir and used for backwashing the filters. These improvements would result in a reduction in the amount of energy used during the water filtration process, resulting in a decrease in indirect operational GHG emissions.

As documented above, the proposed project's impacts associated with GHG emissions would be ***less than significant.***

Question B

See discussion under Regulatory Context and Question A above. There are no adopted local plans associated with GHG emissions. The District would ensure compliance with applicable State regulations adopted for the purpose of reducing GHG emissions through contractual obligations. Therefore, the project would not conflict with a plan, policy, or regulation adopted for the purpose of reducing GHG emissions; there would be ***no impact***.

CUMULATIVE IMPACTS

GHG emissions and global climate change are, by nature, cumulative impacts. Unlike criteria pollutants, which are pollutants of regional and local concern, GHGs are global pollutants and are not limited to the area in which they are generated. As discussed under Regulatory Context above, the State legislature has adopted numerous programs and regulations to reduce statewide GHG emissions, and these regulations apply to all development projects in the State. As documented above, the project's GHG emissions would not exceed the referenced numerical threshold of 1,100 MT/year CO_2e, and would not result in a significant increase in GHG emissions above existing levels.

Therefore, the proposed project's contribution to cumulative GHG emissions would be ***less than significant.***

MITIGATION

None necessary.

DOCUMENTATION

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4.9 HAZARDS AND HAZARDOUS MATERIALS

Would the project:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §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 area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

REGULATORY CONTEXT

FEDERAL

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) of 1976 (Title 42 USC 2) was the first major federal act that provided for regulation of the potential health and environmental impacts associated with solid waste and hazardous waste in the U.S. The U.S. Environmental Protection Agency (USEPA) has primary responsibility for implementing the RCRA.

The RCRA requires businesses, institutions, and other entities that generate hazardous waste to track such waste from the point of generation until it is recycled, reused, or properly disposed. The RCRA was amended in 1984 and 1986 to establish a process for eliminating land-based disposal as the primary disposal method for hazardous waste. RCRA amendments in 1991 addressed the design, construction, operation, monitoring, corrective action, and closure of disposal facilities.

USEPA's Risk Management Plan

Section 112(r) of the federal CAA (referred to as the USEPA's Risk Management Plan) specifically covers "extremely hazardous materials" which include acutely toxic, extremely flammable, and highly explosive substances. Facilities involved in the use or storage of extremely hazardous materials must implement a

Risk Management Plan (RMP), which requires a detailed analysis of potential accident factors and implementation of applicable mitigation measures.

Federal Occupational Safety and Health Administration (OSHA)

The Occupational Safety and Health Act (OSHA) prepares and enforces occupational health and safety regulations with the goal of providing employees a safe working environment. OSHA regulations apply to the workplace and cover activities ranging from confined space entry to toxic chemical exposure.

U.S. Department of Transportation

The United States Department of Transportation regulates the interstate transport of hazardous materials and wastes through implementation of the Hazardous Materials Transportation Act. This act specifies driver-training requirements, load labeling procedures, and container design and safety specifications. Transporters of hazardous wastes must also meet the requirements of additional statutes such as RCRA, discussed previously.

STATE

California Code of Regulations (CCR), Title 22, Definition of Hazardous Material

A material is considered hazardous if it is on a list of hazardous materials prepared by a federal, State, or local agency, or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined in Title 22, §66260.10, of the CCR as: *"A substance or combination of substances which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed."*

Department of Toxic Substances Control

The California Department of Toxic Substances Control (DTSC) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under the RCRA and the State Hazardous Waste Control Law. Both laws impose "cradle-to-grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment. DTSC established waste management rules for solar photovoltaic (PV) modules, and they are subject to requirements for "universal waste" pursuant to CCR Title 22, Division 4.5, Chapter 1, §66261.9 *et seq.*). The rules became effective on January 1, 2021. Additional items that are managed as universal waste, meaning that they are not fully regulated as hazardous wastes, include batteries, electronic devices, mercury-containing equipment, lamps, cathode ray tubes (CRT), CRT glass, and aerosol cans (DTSC, 2020).

California Occupational Safety and Health Administration (Cal/OSHA)

The California Occupational Safety and Health Administration (Cal/OSHA) has primary responsibility for developing and enforcing State workplace safety regulations, including requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation.

California Department of Forestry and Fire Protection (CAL FIRE)

The Bates Bill (AB 337), enacted in 1992, required CAL FIRE to work with local governments to identify high fire hazard severity zones throughout each county in the State. CAL FIRE adopted Fire Hazard Severity Zone (FHSZ) Maps for State Responsibility Areas (SRAs) in November 2007. Pursuant to California Government Code §51175-51189, CAL FIRE also recommended FHSZs for Local Responsibility Areas (LRAs). Over the years, CAL FIRE has updated the maps and provided new recommendations to local governments based on fire hazard modeling.

The fire hazard model considers wildland fuels (natural vegetation that burns during the wildfire); topography (fires burn faster as they burn up-slope); weather (fire burns faster and with more intensity when air temperature is high, relative humidity is low, and winds are strong); and ember production and movement (how far embers move and how receptive the landing site is to new fires). The model recognizes that some areas of California have more frequent and severe wildfires than other areas.

Regional Water Quality Control Board

The SWRCB and RWQCBs regulate hazardous substances, materials, and wastes through a variety of state statutes, including the Porter-Cologne Water Quality Control Act and underground storage tank cleanup laws. The Regional Boards regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Any person proposing to discharge waste within the State must file a report of waste discharge with the appropriate regional board. The proposed project is located within the jurisdiction of the North Coast RWQCB.

Hazardous Materials Emergency Response/Contingency Plan

Chapter 6.95, §25503, of the California Health and Safety Code requires businesses that handle/store a hazardous material or a mixture containing a hazardous material to establish and implement a Business Plan for Emergency Response (Business Plan). A Business Plan is required when the amount of hazardous materials exceeds 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases. A Business Plan is also required if federal thresholds for extremely hazardous substances are exceeded. The Business Plan includes procedures to deal with emergencies following a fire, explosion, or release of hazardous materials that could threaten human health and/or the environment.

California Accidental Release Prevention Program (CalARP)

The goal of the California Accidental Release Prevention Program (CalARP) is to prevent accidental releases of substances that pose the greatest risk of immediate harm to the public and the environment. Facilities are required to prepare a Risk Management Plan in compliance with CCR Title 19, Division 2, Chapter 4.5, if they handle, manufacture, use, or store a federally regulated substance in amounts above established federal thresholds; or if they handle a state regulated substance in amounts greater than state thresholds and have been determined to have a high potential for accident risk.

California Building Standards Code

California Fire Code (CFC), Part 9, Chapter 49 (Wildland-Urban Interface Fire Areas), and California Building Code (CBC) Chapter 7A (Materials and Construction Methods for Exterior Wildfire Exposure) include standards for new construction in Wildland-Urban Interface Fire Areas (fire hazard severity zones). The purpose of the standards is to prevent a building from being ignited by flying embers that can travel as much as a mile away from a wildfire and to contribute to a systematic reduction in fire-related losses through the use of performance and prescriptive requirements.

LOCAL

Trinity County General Plan, Safety Element

The Safety Element of the County's General Plan was adopted in 2014 to provide guidelines to promote safety to residents and visitors of Trinity County; and, to reduce the potential risk of death, injuries, property damage, and the economic and social disruptions resulting from hazards such as fires, floods, earthquakes, landslides, and other hazards. The Safety Element includes the following Goals, Objectives, and Policies that apply to the proposed project:

Trinity County General Plan – Safety Element		
Goals:	S.1	Minimize the possibility of the loss of life, injury, or damage to property as a result of airport hazards as identified in the *Trinity County Airport Land Use Compatibility Plan.*
	S.3	Minimize the threats to the public health, the environment and property caused by the use, storage, and transportation of hazardous materials and hazardous waste.
	S.5	Reduce fire hazards in wildland, wildland/urban interface and developed areas through a comprehensive program that encourages the development and maintenance of fire adapted communities and a more fire-resilient landscape.

Objectives:	S.1.1	The Airport Land Use Compatibility Plan for each county airport shall guide all development around airports and said development must be consistent with the guidelines contained within the Plan(s).
	S.3.1	Proper regulation of transportation and storage.
	S.5.1	Ensure emergency accessibility to development through proper road construction, maintenance, and signage.
	S.5.4	Ensure appropriate fire protection standards for all development that emphasizes fire resiliency.
Policies:	S.1.1 (c)	Prevent creation of hazards to flight. Reduce obstructions to airspace required for flight to, from, and around airports, consider wildlife hazards and other forms of interference with safe flight, navigation, or communication.
	S.3.1 (a)	Transport of hazardous materials shall be regulated by the California State Highway Patrol under the California Code of Regulations, Title 13:1150-13:1194, and the Code of Federal Regulations, Title 49.
	S.3.1 (b)	Any proposal for development of a disposal site for hazardous materials generated in Trinity County shall be reviewed to ensure that no significant environmental impacts will result from the project.
	S.5.1 (a)	Roads shall be constructed to provide adequate width, grade, and turn-around space for emergency vehicles by complying with appropriate federal, state and local adopted standards. Construction of roads shall protect water quality, slope stability and threat to natural and cultural resources.
	S.5.1 (d)	Coordinate across land ownerships to encourage the protection and maintenance of the County's transportation network to provide adequate access for emergency response and fire suppression, as well as emergency ingress and egress.
	S.5.4 (a)	Development shall be located, designed and managed to reduce fire risks to life, property and natural resources and incorporate adequate fire protection consistent with the General Plan and adopted regulations. New Development shall incorporate the following in a manner consistent with local and state regulations: i. Fuel breaks or greenbelts and access to them consistent with topography. ii. Adequate and accessible defensible space. iii. At least two (2) ingress-egress routes to a public roadway, if practicable or alternative routes accessible to emergency response equipment. iv. Access routes sufficient to accommodate evacuating vehicles and emergency response equipment. v. Adequate water supply, including fire hydrants where appropriate, for fire suppression shall be provided for all new developments, as determined by the local fire district, California Department of Forestry and Fire Protection, Trinity County Subdivision Ordinance, and the Trinity County Fire Safe Ordinance. vi. New development shall meet all federal, state and local regulations for fire protection; including the encouragement of upgrading existing structures to adopted standards. vii. Development of property not served by a community water system shall maintain sufficient water supplies on site to be used for fire protection consistent with local and state regulations.

Trinity County, Hayfork Community Plan

The 1996 Hayfork Community Plan provides a framework to guide development of public and private projects in the Hayfork area. The plan has been designed to meet the particular needs of the Hayfork area while also being consistent with the goals and objectives of the County's General Plan. The Hayfork Community Plan includes the following Goals, Objectives, and Policies that apply to the proposed project:

Hayfork Community Plan – Hazards		
Goals:	1	Protect people, property, and public and private investments from fire-related hazards.
	3	Protect people, property, and public and private investments from man-made hazards and man-made facilities.
Objectives:	1.3	Address fire protection needs during the location, design, and construction phases of new industrial, commercial, and residential developments.
	3.1	Protect the public health and environment from risks associated with hazardous wastes (including uses that generate, handle, and/or store hazardous waste)
Policies:	1.3c	Require site-specific fire protection measures/design for subdivisions and other developments at the residential-wildland interface.
	3.1c	Any use which could generate hazardous waste that could endanger the public or adversely affect the environment shall be carefully reviewed. Potential hazards/impacts to the environment and/or public safety must be mitigated.
	3.3a	Uses that generate odors disruptive to, or dangerous for, residential areas are to be located away from residential areas or mitigated to reduce odor to an acceptable level.

DISCUSSION OF IMPACTS

Questions A and B

Chemicals currently used in the water treatment process include aluminum chlorohydrate (ACH), PROPAC 926, and calcium hypochlorite.

ACH, a coagulant, is delivered to the WTP in a 2,500-gallon vat on an annual basis. PROPAC 926 is also a coagulant and is delivered in a 25-gallon tote approximately every two years. Both chemicals are pumped from the basement of the control building to 20-gallon day tanks on the top floor of the Control Building by manual operation. Each chemical has two 20-gallon day tanks that are monitored daily by operators. Calcium hypochlorite is used to disinfect treated water; on average, operators use eight to ten pounds of calcium hypochlorite per day and 12 pounds per day during maximum flows.

Coagulant storage and dosing facilities will be relocated to the WTP building. An on-site sodium hypochlorite generation (OSHG) system that will replace calcium hypochlorite disinfection will also be located within the new WTP building. The only delivery required for an OSHG is salt, which can be delivered once per year. Therefore, because the OSHG will replace calcium hypochlorite disinfection, the project will result in a reduction in the number of chemical deliveries required per year.

The project includes construction of a potassium permanganate ($KMnO_4$) dosing station for emergency use to minimize taste and odor issues resulting from algae blooms and stratification of water in the reservoir. $KMnO_4$ is a strong chemical oxidizer used to remove impurities from water. $KMnO_4$ is a dry product that must be stored in a dry, well-ventilated area. The District has a limited amount of $KMnO_4$ at the WTP for use in the filters as needed, however, the District reports that $KMnO_4$ hasn't been used for several years. $KMnO_4$ would be stored in the new dosing station.

The transport, use, and disposal of hazardous substances would be conducted in accordance with applicable federal, State, and local regulations, including those identified under Regulatory Context. During construction, limited quantities of hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, etc., may temporarily be brought into areas where improvements are proposed. There is a possibility of accidental release of hazardous substances into the environment, such as spilling petroleum-based fuels used for construction equipment. Construction contractors would be required to comply with applicable federal and State environmental and workplace safety laws. Additionally, construction contractors are required to implement BMPs for the storage, use, and transportation of hazardous materials.

Therefore, impacts associated with the potential release of hazardous materials into the environment would be ***less than significant.***

Question C

According to the Trinity County Office of Education, the closest school to the WTP site is Hayfork High School, a public school on Oak Avenue, approximately 0.4 miles southwest of the WTP site. Construction contractors would access the WTP site via Highway 3, just north of the school. As described under Questions A and B above, although project construction would involve temporary use of relatively small quantities of materials such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, etc., potential impacts associated with hazardous materials would be ***less than significant*** with compliance with existing laws and regulations.

Question D

The following databases were reviewed to locate hazardous waste facilities, land designated as hazardous waste property, and hazardous waste disposal sites in accordance with California Government Code §65962.5:

- List of Hazardous Waste and Substances sites from the Department of Toxic Substances Control (DTSC) EnviroStor Database.
- SWRCB GeoTracker Database
- List of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit.
- List of active Cease and Desist Orders and Clean-Up and Abatement Orders from the SWRCB.

Review of the above records shows that the nearest active clean-up site is the Glen's Exxon site on Highway 3, ~0.9 miles southwest of the project site. Due to the distance between the project site and the clean-up site, there would be ***no impact***.

Question E

The Hayfork Airport is located approximately 0.8 miles southwest of the WTP site (Federal Aviation Administration, n.d.). According to the Trinity County Airport Land Use Compatibility Plan (ALUCP) (Trinity County, 2009), the project area is located within the Compatibility Zone and Influence Area for the Hayfork Airport. The ALUCP establishes safety zones for areas on the airport property and areas adjacent to the airport property. The project study area is located within Zone D, which indicates areas within common aircraft flight paths. According to the ALUCP, the relative risk level for Zone D is low.

The project does not include any components that would increase the potential for people living or working in the project area to be exposed to excessive noise or safety hazards associated with the airport in the long term. Although construction workers would be completing improvements 0.8 miles northeast of the airport, the airport must comply with FAA regulations enacted to protect public health, safety, and welfare. Therefore, potential impacts are ***less than significant***.

Question F

In 2022, Trinity County established various evacuation zones throughout the County. The project site is located in Evacuation Zone HFK-313 (Weaverville Fire Department, 2022). In the event of an emergency, local authorities issue evacuation warnings or orders for specific zones and provide an evacuation status report. According to the Safety Element of the Trinity County General Plan (Trinity County, 2014), Highway 3 in the project area serves as a major evacuation route for the public and provides emergency access for firefighters, law enforcement, and other emergency responders.

The proposed project does not involve a use or activity that could interfere with long-term emergency response or emergency evacuation plans for the area. No work would occur in off-site roadways, and staging of construction equipment would occur on the WTP property and Ewing Pump Station site. Although a temporary increase in traffic on local roadways could occur during construction and could interfere with emergency response times, construction-related traffic would be minor due to the overall scale of the construction activities. Further, construction-related traffic would be spread over the duration of the construction schedule and would be minimal on a daily basis. Therefore, impacts during construction would be ***less than significant.***

Question G

The WTP and Ewing Pump Station are located within a Very High Fire Hazard Severity Zone (FHSZ) in a State Responsibility Area (SRA). CBC standards for roofing, siding, decking, windows, and vents apply in all SRAs, regardless of the fire hazard severity ranking. At a minimum, roof coverings will be Class A, which is the highest rating and provides the highest resistance to fire. Exterior walls will be ignition resistant/non-combustible. Tanks and gas piping will be installed in accordance with NFPA 58 and California Fire Code requirements.

Equipment used during construction activities, including power tools and acetylene torches, may create sparks that could ignite dry grass. Because the project is located in a Very High FHSZ in a SRA, construction activities are subject to the PRC wildfire measures and State Fire Code regulations that identify minimum safeguards that must be implemented during construction, alteration, and demolition activities to protect life and property from fire. In the long-term, the project would increase water storage capacity and improve fire flows, which would improve the ability to fight wildfires in the area. Therefore, impacts would be ***less than significant.***

CUMULATIVE IMPACTS

As documented above, the proposed project would not result in a significant increase in long-term risks associated with hazards or hazardous materials. The transport, use, and disposal of hazardous chemicals by the project and cumulative projects would be conducted in accordance with existing regulations, and steps must be taken during construction to minimize wildfire risks.

Construction would be in conformance with applicable California building and fire codes. Because the proposed project and cumulative projects are required to implement measures to reduce the potential for adverse impacts associated with hazards and hazardous materials, including wildfire, the proposed project's cumulative impacts would be less than significant.

MITIGATION

None necessary.

DOCUMENTATION

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4.10 HYDROLOGY AND WATER QUALITY

Would the project:

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

REGULATORY CONTEXT

FEDERAL

Clean Water Act (CWA)

The CWA (33 USC §1251-1376), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality and was established to *"restore and maintain the chemical, physical, and biological integrity of the Nation's waters."* Pertinent sections of the Act are as follows:

1. Sections 303 and 304 provide for water quality standards, criteria, and guidelines.
2. Section 401 (Water Quality Certification) requires an applicant for any federal permit that would authorize a discharge to waters of the U.S to obtain certification from the state that the discharge will comply with other provisions of the Act.
3. Section 402 establishes the NPDES, a permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the U.S. This permit program is administered by the SWRCB and is discussed in detail below.
4. Section 404, jointly administered by the USACE and USEPA, establishes a permit program for the discharge of dredged or fill material into waters of the U.S.

Federal Anti-Degradation Policy

The federal Anti-Degradation Policy is part of the CWA (Section 303(d)) and is designed to protect water quality and water resources. The policy directs states to adopt a statewide policy that protects designated uses of water bodies (e.g., fish and wildlife, recreation, water supply, etc.). The water quality necessary to support the designated use(s) must be maintained and protected.

Safe Drinking Water Act

Under the 1974 Safe Drinking Water Act, most recently amended in 1996, USEPA regulates contaminants of concern to domestic water supply, which are those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are classified as either primary or secondary Maximum Contaminant Levels (MCLs). MCLs and the process for setting these standards are reviewed triennially.

Federal Emergency Management Agency (FEMA)

FEMA is responsible for mapping flood-prone areas under the National Flood Insurance Program (NFIP). Communities that participate in the NFIP are required to adopt and enforce a floodplain management ordinance to reduce future flood risks related to new construction in a flood hazard area. In return, property owners have access to affordable federally funded flood insurance policies.

National Pollutant Discharge Elimination System

Under Section 402(p) of the CWA, the USEPA established the NPDES to enforce discharge standards for both point-source and non-point-source pollution. Dischargers can apply for individual discharge permits, or apply for coverage under the General Permits that cover certain qualified dischargers. Point-source discharges include municipal and industrial wastewater, stormwater runoff, combined sewer overflows, sanitary sewer overflows, and municipal separate storm sewer systems. NPDES permits impose limits on discharges based on minimum performance standards or the quality of the receiving water, whichever type is more stringent in a given situation.

STATE

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code §13000 *et seq*.) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of waters of the State. The Porter-Cologne Act applies to surface waters, wetlands, and groundwater, and to both point and non-point sources of pollution. The 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. The RWQCBs enforce waste discharge requirements identified in the Report.

State Anti-Degradation Policy

In 1968, as required under the Federal Anti-Degradation Policy, the SWRCB adopted an Anti-Degradation Policy, formally known as the *Statement of Policy with Respect to Maintaining High Quality Waters in California* (State Water Board Resolution No. 68-16). Under the Anti-Degradation Policy, any actions that can adversely affect water quality in surface or ground waters must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial use of the water, and not result in water quality less than that prescribed in water quality plans and policies.

National Pollution Discharge Elimination System

Pursuant to the federal CWA, the responsibility for issuing NPDES permits and enforcing the NPDES program was delegated to the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB). NPDES permits are also referred to as waste discharge requirements (WDRs) that regulate discharges to waters of the United States. Below is a description of relevant NPDES general permits.

Construction Activity and Post-Construction Requirements

Discharges from construction sites that disturb one acre or more of total land area are subject to the NPDES permit for *Discharges of Storm Water Runoff associated with Construction Activity* (currently Order No. 2022-0057-DWQ, NPDES No. CAS000002), also known as the Construction General Permit. The permitting process requires the development and implementation of an effective Storm Water Pollution Prevention Plan (SWPPP). Coverage under the Construction General Permit is obtained by submitting a Notice of Intent (NOI) to the SWRCB and preparing the SWPPP prior to the beginning of construction. The SWPPP must include BMPs to reduce pollutants and any more stringent controls necessary to meet water quality standards. Dischargers must also comply with water quality objectives as defined in the applicable Basin Plan.

The Construction General Permit includes post-construction requirements for areas in the State not covered by a Standard Urban Storm Water Management Plan (SUSWMP) or a Phase I or Phase II MS4 Permit. These requirements are intended to ensure that the post-construction conditions at the project site do not cause or contribute to direct or indirect water quality impacts (i.e., pollution and/or hydromodification) upstream or downstream.

Where applicable, the SWPPP submitted to the SWRCB with the NOI must include a description of all post-construction stormwater management measures. The SWRCB SMARTS post-construction calculator or similar method would be used to quantify the runoff reduction resulting from implementation of the measures. The applicant must also submit a plan for long-term maintenance with the NOI. The maintenance plan must be designed for a minimum of five years and must describe the procedures to ensure that the post-construction stormwater management measures are adequately maintained.

Dewatering Activities (Discharges to Surface Waters and Storm Drains)

Construction dewatering activities that involve the direct discharge of relatively pollutant-free wastewater that poses little or no threat to the water quality of waters of the U.S. are subject to the provisions of NCRWQCB Order R5-2022-0006 (NPDES No. CAG995002), *Waste Discharge Requirements, Limited Threat Discharges to Surface Water*, as amended. WDRs for this order include discharge prohibitions, receiving water limitations, monitoring, and reporting, etc. Coverage is obtained by submitting a NOI to the applicable RWQCB.

Dewatering Activities (Discharges to Land)

Construction dewatering activities that are contained on land and do not discharge to waters of the U.S. are authorized under SWRCB Water Quality Order No. 2003-003-DWQ if the discharge is of a quality as good as or better than the underlying groundwater, and there is a low risk of nuisance.

Water Quality Control Plans (Basin Plans)

Each of the State's RWQCBs is responsible for developing and adopting a basin plan for all areas within its region. The Plans identify beneficial uses to be protected for both surface water and groundwater. Water quality objectives for all waters addressed through the plans are included, along with implementation programs and policies to achieve those objectives. Waste discharge requirements (WDRs) were adopted in order to attain the beneficial uses listed for the Basin Plan areas.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA), enacted in September 2014, established a framework for groundwater resources to be managed by local agencies in areas designated by the Department of Water Resources as "medium" or "high" priority basins. Basins were prioritized based, in part, on groundwater elevation monitoring conducted under the California Statewide Groundwater Elevation Monitoring (CASGEM) program.

The SGMA requires local agencies in medium- and high-priority basins to form Groundwater Sustainability Agencies (GSAs) and be managed in accordance with locally-developed Groundwater Sustainability Plans (GSPs). Medium- and high-priority basins must be managed under a GSP by January 31, 2022. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans.

LOCAL

Trinity County General Plan, Safety Element

The Safety Element of the County's General Plan was adopted in 2014 to provide guidelines to promote safety to residents and visitors of Trinity County; and, to reduce the potential risk of death, injuries, property damage, and the economic and social disruptions resulting from hazards such as fires, floods, earthquakes, landslides, and other hazards. The Safety Element includes the following Goal, Objectives, and Policies that apply to the proposed project:

Trinity County General Plan – Safety Element		
Goal:	S.2	To protect lift and property while also protecting and managing natural drainage wars, floodplains, and flood retentions basins thereby reducing hazards within Trinity County resulting from floods.
Objectives:	S.2.1	Reduce loss of life and property by establishing development standards for areas subject to flooding.
	S.2.2	Reduce the potential for the loss of life and property from dam failure inundation.
Policies:	S.2.1 (a)	Require all development to meet federal, state and local regulations for floodplain management protection; including the encouragement of upgrading existing structures to meet adopted standards.
	S.2.1 (b)	Require all development to meet the development standards of the National Flood Insurance Act regulations in Title 44 of the Code of Federal Regulations, Section 60.3, as implemented through the County Zoning Ordinance section 29.4.
	S.2.1 (e)	Maintain open space lands in areas identified to be in areas of flood hazard.
	S.2.2 (c)	When development is proposed in areas adjacent to or downstream from an existing dam, the area affected by dam failure inundation shall be identified as past of the application.
	S.2.2 (f)	When feasible avoid constructing critical facilities within areas potentially susceptible to inundation by dam failures.

Trinity County General Plan, Open Space and Conservation Element

The Open Space and Conservation Element of the County's General Plan was adopted in 1973 to preserve and protect the prime forest lands and the limited agricultural lands or Trinity County; and, to conserve the land resources of Trinity County and to protect water resources as well. The following Objective and Recommendation apply to the proposed project:

Trinity County General Plan – Open Space and Conservation Element	
Objective:	To preserve the quantity and quality of the existing water supply in Trinity County and adequately plan for the expansion and retention of valuable water supplies for future generations.
Recommendation:	Disapprove of any development which may pollute the existing streams and lakes or become the source of silt which washed down into water areas.

Trinity County, Hayfork Community Plan

The 1996 Hayfork Community Plan provides a framework to guide development of public and private projects in the Hayfork area. The plan has been designed to meet the particular needs of the Hayfork area while also being consistent with the goals and objectives of the County's General Plan. The Hayfork Community Plan includes the following Goals, Objectives, and Policies that apply to the proposed project:

Hayfork Community Plan – Natural Resources		
Goal:	3	Provide for the continued utilization of the natural resources of the Plan Area for both humans and wildlife.
Objective:	3.1	Maintain and protect water quality and quantity for domestic uses, fishers, and wildlife in the basin.
Policies:	3.1b	Maintain and enhance the water quality and quantity of area streams by reviewing development proposals and public agency and private land management practices for potential impacts to water quality.
	3.1c	Require site-specific mitigation measures for projects likely to result in siltation and/or pollution of streams.
	3.1d	Support efforts to improve and/or conserve the amount and quality of water resources in the Hayfork basin.
	3.1e	Encourage public and private actions necessary to prevent degradation of water quality.
Hayfork Community Plan – Hazards		
Goal:	2	Protect people, property, and public and private investments from naturally occurring hazards.
Objective:	2.3	Protect public and private development from flood hazards.
Policy:	2.3b	An existing parcel (created prior to the adoption of this plan) lying entirely within an area of special flood hazard as identified on a FIRM map, or not having a buildable area outside of the special flood hazard area, may be developed (in conformance with the standards of the underlying zoning district), subject to compliance with the Trinity County Floodplain Management Ordinance (County Ord. No. 1176).

DISCUSSION OF IMPACTS

Questions A and E

The proposed project has the potential to temporarily degrade water quality due to increased erosion during project construction; however, as discussed under Regulatory Context above, and in Section 4.7 under Question B, the SWRCB Construction General Permit requires implementation of an effective SWPPP that includes BMPs to control construction-related erosion and sedimentation and prevent damage to streams, watercourses, and aquatic habitat. The proposed project is subject to post-construction requirements included in the SWRCB Construction General Permit to ensure that the post-construction conditions at the project site do not cause or contribute to direct or indirect impacts from stormwater runoff (i.e., pollution and/or hydromodification) upstream or downstream.

As discussed under Regulatory Context above, the SGMA established a framework for groundwater resources to be managed by local agencies in areas designated by the Department of Water Resources as medium or high priority basins. The project site is not located in a medium or high priority basin, and there is not a sustainable groundwater management plan that applies to the proposed project.

Compliance with the SWRCB Construction General Permit ensures that the project would not violate any water quality standards or waste discharge requirements or conflict with or obstruct implementation of a water quality control plan. Impacts would be ***less than significant.***

Question B

The proposed project would not use groundwater for construction or operation. Construction of the new water treatment building, water storage tank, backwash storage tank, backwash water recycle pump station, appurtenant equipment, and paved areas would result in an increase in impervious surface of ~0.55 acres, which would decrease the area available for groundwater recharge. The project area is located within the Rush Creek-Hayfork Creek hydrologic unit, which totals ~32,244 acres (USEPA, 2022). The project's increase in impervious surface represents a small percentage of the entire surface area of the hydrologic region. Runoff would be directed to areas with pervious surfaces, and undeveloped land surrounding the project site would remain available for groundwater recharge. Therefore, the project would not impede sustainable groundwater management of the basin; impacts would be ***less than significant***.

Question C

The project does not include the alteration of the course of a stream or river. As stated under Question B, the project would add ~0.55 acres of impervious surface, which would increase runoff from the site above existing conditions. As stated in Section 3.2 (Project Components/Physical Improvements), the project includes drainage improvements throughout the WTP site to collect runoff from the new impervious surfaces (see **Figure 5**, Piping Plan).

The SWRCB Construction General Permit requires implementation of a SWPPP that includes BMPs to control construction-related runoff and erosion to prevent damage to streams, watercourses, and aquatic habitat. The proposed project is also subject to post-construction requirements included in the SWRCB Construction General Permit to ensure that the post-construction conditions at the project site do not cause or contribute to direct or indirect impacts from stormwater runoff (i.e., pollution and/or hydromodification) upstream or downstream.

Implementation of BMPs and post-construction measures, and completion of the proposed drainage improvements ensures that the project would not alter drainage patterns in the area in a manner that would result in increased surface runoff, flooding on- or off-site, or otherwise degrade water quality; impacts would be ***less than significant.***

Question D

A tsunami is a wave generated in a large body of water (typically the ocean) by fault displacement or major ground movement. The project area is located approximately 63 miles east of the Pacific Ocean, and there is no risk of tsunami.

A seiche is a large wave generated in an enclosed body of water in response to ground shaking. Seiches could potentially be generated in Ewing Reservoir due to very strong ground-shaking; however, it is not likely that such ground shaking would cause a seiche large enough to overtop Ewing Dam. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (Panel 06105C1191E, effective January 20, 2021), the WTP site and Ewing Pump Station are not located within a designated flood hazard zone.

Therefore, the potential for release of pollutants due to inundation by seiche, tsunami, or flood would be ***less than significant***.

CUMULATIVE IMPACTS

The proposed project and other potential cumulative projects in the region, including growth resulting from build-out of the County's General Plan, could result in degradation of water quality, adverse impacts to groundwater supplies and groundwater recharge, and an increased risk of flooding due to additional surface runoff generated by the projects. All projects in the State that result in land disturbance of one acre or more are required to comply with the State Water Board General Construction NPDES permit which requires implementation of BMPs to reduce pollutants and any additional controls necessary to meet water quality standards. Compliance with existing resource agency requirements ensures that the proposed project's cumulative impacts to hydrology and water quality are less than significant.

MITIGATION

None necessary.

DOCUMENTATION

California Department of Water Resources. 2023. Sustainable Groundwater Management Act, Basin Prioritization Dashboard. https://gis.water.ca.gov/app/bp-dashboard/final/. Accessed September 2023.

Federal Emergency Management Agency. 2023. National Flood Hazard Map (Panel 06023C0515G), effective June 21, 2017. https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd. Accessed September 2023.

North Coast Regional Water Quality Control Board. 2020. *Waste Discharge Requirements for Low Threat Discharges to Surface Waters in the North Coast Region, NPDES No. CAG00024902; Order R1-2020-00-6* https://www.waterboards.ca.gov/northcoast/board_decisions/adopted_orders/pdf/2020/20_0006_Low%20Threat%20Discharges%20to%20Surface%20Waters.pdf. Accessed May 2023.

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_____. 1973. Trinity County General Plan Open Space and Conservation Element. https://www.trinitycounty.org/node/1901. Accessed September 2023.

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U.S. Environmental Protection Agency. 2022. WATERS GeoViewer 2.0. https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=074cfede236341b6a1e03779c2bd0692. Accessed September 2023.

4.11 LAND USE AND PLANNING

Would the project:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any applicable land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☒	☐	☐

REGULATORY CONTEXT

There are no federal regulations pertaining to land use and planning that apply to the proposed project.

STATE

California Government Code

California Government Code (CGC) §65300 *et seq.* contains many of the State laws pertaining to the regulation of land uses by cities and counties. These regulations include requirements for general plans, specific plans, subdivisions, and zoning. State law requires that all cities and counties adopt General Plans that include seven mandatory elements: land use, circulation, conservation, housing, noise, open space, and safety. A General Plan is defined as a comprehensive long-term plan for the physical development of the county or city, and any land outside its boundaries that is determined to bear relation to its planning. A development project must be found to be consistent with the General Plan prior to project approval.

LOCAL

Trinity County General Plan

The Trinity County General Plan includes objectives and policies designed for the purpose of avoiding or minimizing impacts to the natural environment. The Trinity County Code implements the County's General Plan. The purpose of the land use and planning provisions of the Code (Title 17, Zoning) is to provide for the orderly and efficient application of regulations and to implement and supplement related laws of the state of California, including but not limited to the California Environmental Quality Act (CEQA).

Trinity County, Hayfork Community Plan

The 1996 Hayfork Community Plan provides a framework to guide development of public and private projects in the Hayfork area. The plan has been designed to meet the particular needs of the Hayfork area while also being consistent with the goals and objectives of the County's General Plan. The goals, objectives, policies, and resulting zoning maps guide future growth and development in the community by balancing the need for housing in the region, protecting lands with good soils for agricultural uses, avoiding development in areas subject to flooding or which are marginally suitable for residential use, protecting water quality and encouraging actions that will lead to economic diversification.

DISCUSSION OF IMPACTS

Question A

Land use impacts are considered significant if a proposed project would physically divide an existing community (a physical change that interrupts the cohesiveness of the neighborhood). The proposed

project does not include any components that would create a barrier for existing or planned development; therefore, there would be ***no impact.***

Question B

As discussed in each resource section of this Initial Study, the proposed project is consistent with applicable Policies and Objectives of the Trinity County General Plan, Hayfork Community Plan, and regulations of the regulatory agencies identified in Section 1.8 of this Initial Study. Where necessary, mitigation measures are included to reduce impacts to less than significant levels. Therefore, with implementation of the mitigation measures identified in Section 1.10, the proposed project would not conflict with any plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect; impacts would be ***less than significant***.

CUMULATIVE IMPACTS

Cumulative projects in the vicinity of the project area, including population growth resulting from build-out of the County's General Plan, would be developed in accordance with local and regional planning documents. Thus, cumulative impacts associated with land use compatibility are expected to be less than significant. In addition, with implementation of the recommended mitigation measures, the proposed project is consistent with the goals, objectives, and policies included in the County's General Plan, and would not contribute to the potential for adverse cumulative land use effects.

MITIGATION

Implementation of the Mitigation Measures identified in Section 1.10 (Summary of Mitigation Measures).

DOCUMENTATION

Trinity County. 1973-2020. Trinity County General Plan. https://www.trinitycounty.org/node/1901. Accessed September 2023.

_____. 1996. Hayfork Community Plan. https://www.trinitycounty.org/sites/default/files/Planning/documents/GeneralPlan_CommPlans/Combined%20Hayfork%20Community%20Plan_0.pdf. Accessed September 2023.

4.12 MINERAL RESOURCES

Would the project:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

REGULATORY CONTEXT

There are no federal regulations pertaining to mineral resources that apply to the project.

STATE

Surface Mining and Reclamation Act of 1975

The Surface Mining and Reclamation Act (SMARA), Chapter 9, Division 2 of the Public Resources Code (PRC), provides a comprehensive surface mining and reclamation policy to ensure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. Mineral Resource Zones (MRZs) are applied to sites determined by the California Department of Conservation (DOC), California Geological Survey (CGS) as being a resource of regional significance, and are intended to help maintain mining operations and protect them from encroachment of incompatible uses. The Zones indicate the potential for an area to contain significant mineral resources.

LOCAL

Trinity County General Plan, Open Space and Conservation Element

The Open Space and Conservation Element of the Trinity County General Plan was adopted in 1973 to preserve and protect the prime forest lands and the limited agricultural lands or Trinity County; and, to conserve the land resources of Trinity County and to protect water resources as well. The following Objective and Recommendation apply to the proposed project:

Trinity County General Plan – Open Space and Conservation Element	
Objective:	To protect the scenic natural resources of Trinity County and preserve areas which are important as commercial natural resources for future generations.
Recommendation:	Conserve lands which provide viable natural mineral deposits for potential future use.

Trinity County, Hayfork Community Plan

The 1996 Hayfork Community Plan provides a framework to guide development of public and private projects in the Hayfork area. The plan has been designed to meet the particular needs of the Hayfork area while also being consistent with the goals and objectives of the County's General Plan. The Hayfork Community Plan includes the following Objective and Policy that apply to the proposed project:

Hayfork Community Plan – Natural Resource		
Objective:	1.3	Provide for the continued use and development of the Hayfork area's mining resources.

Policy:	1.3a	Conserve lands within the Plan Area which provide valuable natural mineral deposits for potential future use (particularly the areas with sand & gravel – East Street, Morgan Hill Road, Hayfork Creek, and Salt Creek).

DISCUSSION OF IMPACTS

Questions A and B

According to the 1996 Hayfork Community Plan, mining activity in the area at the time consisted of limited gold mining and some sand and gravel operations. The largest sand and gravel operation in the area was along Hayfork Creek, downstream from the Highway 3 bridge. There were also several shale pits located on federal and private lands within the identified Plan Area.

According to the DOC, there are no designated MRZs in the project area (DOC, n.d.a). According to the DOC, Division of Mine Reclamation, there is an inactive quarry, Selma Mine, approximately 1.5 miles southwest of the WTP site. DOC identifies one active quarry in proximity to the project area: Mann Mine, approximately one mile southeast of the WTP site (DOC, n.d.b). Due to the distance from the project area, the project would not interfere with the existing mining operations.

Because there are no active mining operations in the project area, no known significant mineral deposits in the area, and no nearby lands designated or zoned by the County for mineral extraction activities, the project would have ***no impact*** on mineral resources.

CUMULATIVE IMPACTS

As stated above, the proposed project would not result in impacts to mineral resources; therefore, the proposed project would not contribute to adverse cumulative impacts to mineral resources.

MITIGATION

None necessary.

DOCUMENTATION

California Department of Conservation, California Geological Survey. n.d.a Mineral Land Classification Maps. https://maps.conservation.ca.gov/cgs/informationwarehouse/. Accessed September 2023.

_____. **Division of Mine Reclamation**. n.d.b Mines Online Maps. https://maps.conservation.ca.gov/mol/index.html. Accessed September 2023.

Trinity County. 1973. Trinity County General Plan Open Space and Conservation Element. https://www.trinitycounty.org/node/1901. Accessed September 2023.

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4.13 NOISE

Would the project result in:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies?	☐	☒	☐	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

NOISE FUNDAMENTALS

Commonly used technical acoustical terms are defined as follows:

Acoustics The science of sound.

Ambient Noise The distinctive pre-project acoustical characteristics of a given area consisting of all noise sources audible at that location.

A-Weighting The sound level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.

Decibel, or dB The fundamental unit of measurement that indicates the intensity of a sound, defined as ten times the logarithm of the ratio of the sound pressure squared over the reference pressure squared.

A change of 1 dBA generally cannot be perceived by humans; a 3 dBA change is considered to be a barely noticeable difference; a 5 dBA change is typically noticeable; and a 10 dBA increase is considered to be a doubling in loudness. Depending on the type of construction, interior noise levels are about 10-15 dBA lower than exterior levels with the windows partially open, and approximately 20-25 decibels lower than exterior noise levels with the windows closed.

REGULATORY CONTEXT

There are no federal regulations pertaining to noise that apply to the proposed project.

STATE

California Government Code §65302(f)

California Government Code §65302(f) requires a Noise Element to be included in all city and county General Plans. The Noise Element must identify and appraise major noise sources in the community (e.g., highways and freeways, airports, railroad operations, local industrial plants, etc.). A noise contour diagram depicting major noise sources must be prepared and used as a guide for establishing land use patterns to minimize the exposure of residents to excessive noise. The Noise Element must include implementation measures and possible solutions that address existing and foreseeable noise levels.

LOCAL

Trinity County General Plan, Noise Element

The Noise Element of the County's General Plan was adopted in 2003 to provide a policy framework for addressing potential noise impacts encountered in the planning process. The purpose of the Noise Element is to minimize future noise conflicts. Table VI of the County's Noise Element provides the maximum allowable noise exposure standards for transportation sources. Table VII provides the maximum allowable noise exposure standards for stationary sources. Trinity County does not have adopted standards for temporary construction noise. The following Goals, Policies, and Implementation Measures apply to the proposed project:

Table VI

Maximum Allowable Noise Exposure - Transportation Noise Sources

Land Use	Outdoor Activity Areas[1] L_{dn}, dB	Interior Spaces	
		L_{dn}, dB	L_{eq}, dB[2]
Residential	60	45	-
Transient Lodging	60	45	-
Hospitals, Nursing Homes	60	45	-
Churches, Meeting Halls	60	-	45
Schools, Libraries, Museums, Day-care centers	_	-	45

[1]Where the location of outdoor activity areas is unknown or is not applicable, the exterior noise level standard shall be applied to the property line of the receiving land use.

[2]As determined for a typical worst-case hour during periods of use.

Table VII
Maximum Allowable Noise Exposure - Stationary Noise Sources [1, 2, 3, 4]

	Daytime (7 a.m. to 7 p.m.)	Evening (7 p.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly Equivalent Sound Level (L_{eq}), dB	55	50	45
Maximum Sound Level (L_{max}), dB	75	70	65

[1]As determined at outdoor activity areas. Where the location of outdoor activity areas is unknown or not applicable, the noise exposure standard shall be applied at the property line of the receiving land use.

[2]For recurring impulsive noise sources, the allowable maximum (L_{max}) noise exposure shall be 70 dBA in the daytime, 65 dB in the evening, and 60 dBA in the nighttime using "Fast" sound level meter response.

[3]For noise sources primarily comprised of speech and/or music, the allowable noise exposure in Table VII shall be reduced by 5 dB.

[4]For noise sources that are found and declared by the Board of Supervisors to be from uses of such importance to the county for economic, environmental enhancement or movement of goods, services, or people that the allowable noise exposure in Table VII shall be increased by 10 dB.

Trinity County General Plan – Noise Element		
Goals:		To protect the citizens of the County from the harmful and annoying effects of exposure of excessive noise.
		To preserve the tranquility of residential areas by preventing noise-producing uses from encroaching upon existing or planned noise-sensitive uses.
Policies:	4.2.1	New noise-sensitive land uses impacted by existing or projected future transportation noise sources shall include mitigation measures so that resulting noise levels do not exceed the standards shown in Table VI.
	4.2.2	Noise created by new transportation noise sources shall be mitigated so that resulting noise levels do not exceed the standards shown in Table VI at noise sensitive land uses.
	4.2.3	New noise-sensitive land uses impacted by stationary noise sources shall include mitigation measures so that resulting noise levels do not exceed the standards shown in Table VII.
	4.2.4	Noise created by new proposed stationary noise sources or existing stationary noise sources which undergo modifications that may increase noise levels shall be mitigated so as not to exceed the noise level standards of Table VII at noise sensitive land uses.
	4.2.6	Where full mitigation in accordance with the policies and standards of this Noise Element is not feasible, the Planning Commission may modify or waive such policies or standards to enable reasonable use of the property, provided that noise levels are mitigated to the maximum feasible extent.
Implementation Measures:	5.1	The County shall review new public and private development proposals to determine conformance with the policies of this Noise Element.
	5.2	The County shall require an acoustical analysis in those cases where a project potentially threatens to expose existing or proposed noise-sensitive land uses to excessive noise levels. The presumption of potentially excessive noise levels shall be based on the location of new noise-sensitive uses to known noise sources (see Table I and the noise contour maps on file with the County), or staff's professional judgment that a potential for adverse noise impacts exists. Acoustical analyses shall be required early in the review process so that noise mitigation may be included in the project design. For development not subject to environmental review, the requirements for an acoustical analysis shall be implemented prior to the issuance of building permits. The requirements for the content of an acoustical analysis are given in Appendix B.
	5.3	The County shall develop and employ procedures to ensure that noise mitigation measures required pursuant to an acoustical analysis are implemented in the development review and building permit processes.
	5.4	The County shall develop and employ procedures to monitor compliance with the policies of the Noise Element after completion of projects where noise mitigation measures have been required.

Trinity County, Hayfork Community Plan

The 1996 Hayfork Community Plan provides a framework to guide development of public and private projects in the Hayfork area. The plan has been designed to meet the particular needs of the Hayfork area while also being consistent with the goals and objectives of the County's General Plan. The Hayfork Community Plan includes the following Objective and Policies that apply to the proposed project:

Hayfork Community Plan – Hazards		
Objective:	3.4	Protect the public from adverse noise impacts.
Policies:	3.4d	Potential increases in noise from the expansion of existing noise sources should be evaluated if the proposal requires discretionary review by the County.
	3.4e	Measures should be adopted to prevent sensitive noise receptors from encroaching into identified 60 dB Leq noise contours. Such measures could include the adoption of specific zoning designations (compatible with higher noise levels), setbacks, and/or buffers (trees, earth berms, etc.).

DISCUSSION OF IMPACTS

Question A

Some individuals and groups of people are considered more sensitive to noise than others and are more likely to be affected by the existence of noise. A sensitive receptor is defined as one whose comfort, health, or well-being could be impaired or endangered by the existence of noise. Locations that may contain high concentrations of noise-sensitive receptors include residential areas, schools, parks, churches, hospitals, and long-term care facilities.

The effects of noise on people can include annoyance, nuisance, and dissatisfaction; interference with activities such as speech, sleep, and learning; and physiological effects such as hearing loss or sudden startling. A common method to predict human reaction to a new noise source is to compare a project's predicted noise level to the existing environment (ambient noise level). A change of 1 dBA generally cannot be perceived by humans; a 3-dBA change is considered to be a barely noticeable difference; a 5-dBA change is typically noticeable; and a 10-dBA increase is considered to be a doubling in loudness and can cause an adverse response (Caltrans, 2013).

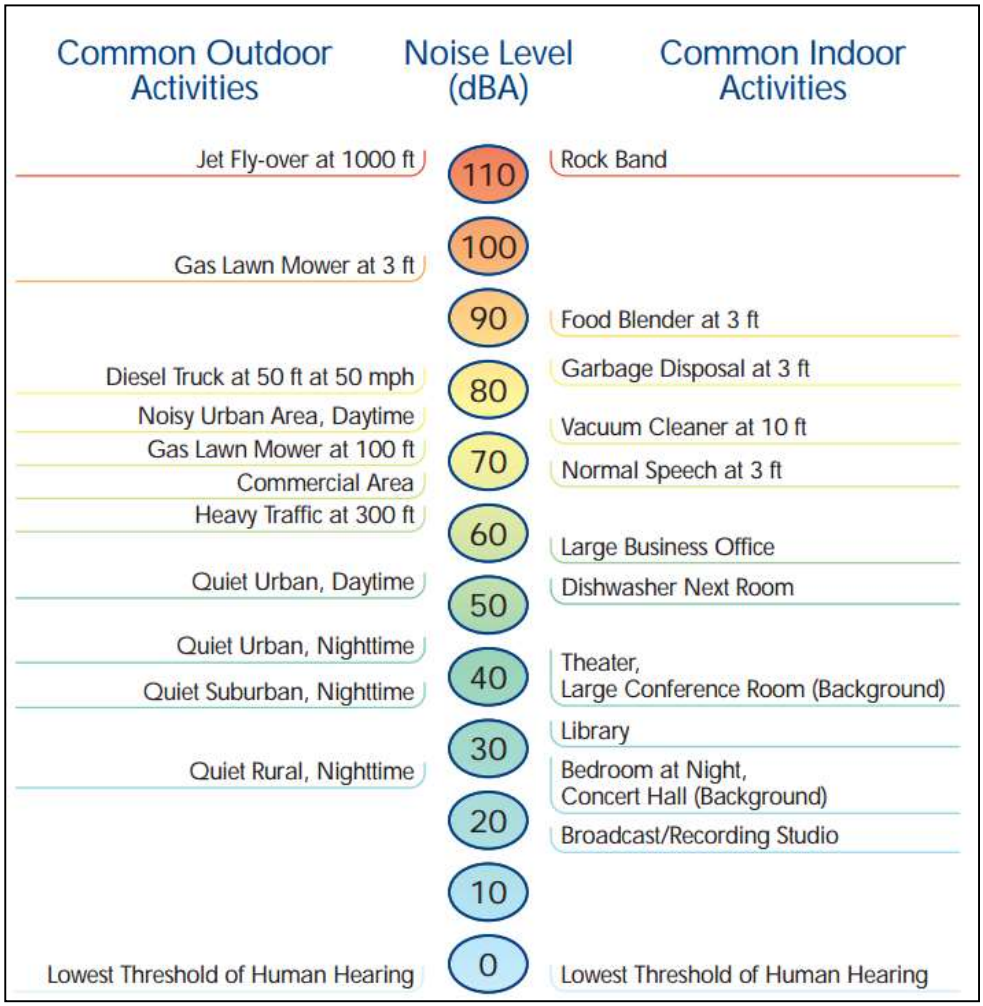
Construction Noise

Construction activities associated with the project would temporarily increase noise levels at nearby sensitive land uses. Construction would occur as close as 320 feet from single-family residences on Reservoir Road.

Temporary traffic noise impacts along local streets would occur due to an increase in traffic from construction workers commuting to the site; however, it is not anticipated that worker commutes would significantly increase daily traffic volumes. Noise also would be generated during delivery of construction equipment and materials to the project site.

Noise impacts resulting from construction activities would depend on: 1) the noise generated by various pieces of construction equipment; 2) the timing and duration of noise-generating activities; 3) the distance between construction noise sources and noise-sensitive receptors; and 4) existing ambient noise levels. **Figure 4.13-1** shows noise levels of common activities to enable the reader to compare construction-noise with common activities.

Figure 4.13-1
Noise Levels of Common Activities



Source: Caltrans, 2016.

Noise levels from construction-related activities would fluctuate, depending on the number and type of construction equipment operating at any given time. As shown in **Table 4.13-1**, construction equipment anticipated to be used for project construction typically generates maximum noise levels ranging from 74 to 89 decibels (dBA) at a distance of 50 feet.

TABLE 4.13-1
Examples of Construction Equipment
Noise Emission Levels

Equipment	Typical Noise Level (dBA) 50 feet from Source
Roller	74
Concrete Vibrator	76
Pump	76
Saw	76
Backhoe	80
Air Compressor	81
Generator	81
Compactor	82
Concrete Pump	82
Compactor (ground)	83

TABLE 4.13-1
Examples of Construction Equipment
Noise Emission Levels

Equipment	Typical Noise Level (dBA) 50 feet from Source
Crane, Mobile	83
Concrete Mixer	85
Dozer	85
Excavator	85
Grader	85
Loader	85
Jack Hammer	88
Truck	88
Paver	89
Scraper	89

Sources: U.S. Department of Transportation, Federal Transit Administration, 2018. Federal Highway Administration, 2017.

Noise from construction activities generally attenuates at a rate of 6 dBA (on hard and flat surfaces) to 7.5 dBA (on soft surfaces, such as uneven and/or vegetated terrain) per doubling of distance. In the project area, most of the improvements would occur on soft, semi-vegetated terrain, and it is anticipated that noise would attenuate at 7.5 dBA per doubling of distance.

Because it is a logarithmic unit of measurement, a decibel cannot be added or subtracted arithmetically. The combination of two or more identical sound pressure levels at a single location involves the addition of logarithmic quantities as shown in **Table 4.13.2.** A doubling of identical sound sources results in a sound level increase of approximately 3 dB. Three identical sound sources would result in a sound level increase of approximately 4.8 dB. For example, if the sound from one excavator resulted in a sound pressure level of 85 dB, the sound level from two backhoes would be 88 dB, and the sound level from three backhoes would be 89.8 dB.

TABLE 4.13.2
Cumulative Noise: Identical Sources

Number of Sources	Increase in Sound Pressure Level (dB)
2	3
3	4.8
4	6
5	7
10	10
15	11.8
20	13

Sources: U.S. Department of Transportation, Federal Transit Administration, 2018. The Engineering Toolbox, 2019.

In addition, as shown in **Table 4.13.3**, the sum of two sounds of a different level is only slightly higher than the louder level. For example, if the sound level from one source is 80, and the sound level from the second source is 89 dB, the level from both sources together would be 89.5.

TABLE 4.13.3
Cumulative Noise: Different Sources

Sound Level Difference between two sources (dB)	Decibels to Add to the Highest Sound Pressure Level
0	3
1	2.5
2	2
3	2
4	1.5
5	1
6	1
7	1
8	0.5
9	0.5
10	0.5
Over 10	0

Sources: U.S. Department of Transportation, Federal Transit Administration, 2018. The Engineering Toolbox, 2019.

Disregarding the noise attenuation due to intervening topography, barriers, wind, and other factors, in the worst-case scenario, with three pieces of equipment with a cumulative noise level of 89 dBA operating simultaneously at a distance of 320 feet, noise levels could reach approximately 69 dBA at the exterior of the nearest single-family residence.

As noted above, assuming typical California construction methods, interior noise levels are about 10 to 15 dBA lower than exterior levels within residential units with the windows partially open, and approximately 20 to 25 decibels lower than exterior noise levels with the windows closed. Interior noise levels could reach 44 to 49 dBA when equipment operates within 320 feet of a residence, provided that the windows were closed.

In addition, OSHA regulations (Title 29 CFR, §1926.601(b)(4)(i) and (ii) and §1926.602(a)(9)(ii)) state that no employer shall use any motor vehicle, earthmoving, or compacting equipment that has an obstructed view to the rear unless the vehicle has a reverse signal alarm audible above the surrounding noise level or the vehicle is backed up only when an observer signals that it is safe to do so. Although these regulations require an alarm to be only at a level that is distinguishable from the surrounding noise level (~5 dB), some construction vehicles are pre-equipped with non-adjustable alarms that range from 97 to 112 dBA.

At a distance of 320 feet, 97 to 112 dBA noise levels would decrease to 77 to 92 dBA. Depending on the decibel level of the alarm, interior noise levels could sporadically reach 67 to 72 dBA, provided that the windows were closed.

The exposure to loud noises (above 85 dB) over a long period of time may lead to hearing loss. The longer the exposure, the greater the risk for hearing loss, especially when there is not enough time for the ears to rest between exposures. Hearing loss can also result from a single extremely loud sound at very close range, such as sirens and firecrackers (Centers for Disease Control, 2018). Even when noise is not at a level that could result in hearing loss, excessive noise can affect quality of life, especially during nighttime hours.

Although the County does not have specific thresholds for construction noise, the California Division of Safety and Health and OSHA have established thresholds for exposure to noise in order to prevent hearing damage. The maximum allowable daily noise exposure is 90 dBA for 8 hours, 95 dBA for 4 hours, 100 dBA for 2 hours, 105 dBA for 1 hour, 110 dBA for 30 minutes, and 115 dBA for 15 minutes (Caltrans, 2013).

As noted above, in the worst-case scenario, interior noise levels from construction equipment operation could reach approximately 49 dBA and could sporadically reach approximately 72 dBA if reverse signal alarms are used. However, construction equipment does not operate continuously throughout the entire workday. In addition, reverse signal alarms are needed only intermittently, and each occurrence involves only seconds of elevated noise levels. Therefore, while construction noise would reach considerable levels for short instances, much of the time the construction noise levels at the nearby residences would be mild to moderate.

In order to minimize impacts from construction noise, **MM 4.13.1** restricts construction noise to the daytime hours of 7:00 AM to 7:00 PM, Monday through Saturday, **MM 4.13.2** requires that construction equipment be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds. Further **MM 4.13.3** mandates that stationary equipment, such as generators and compressors, shall be located at the furthest practical distance from nearby noise-sensitive land uses. Implementation of **MM 4.13.1, 4.13.2, and 4.13.3** ensures that impacts during construction are less than significant.

Operational Impacts

Project components with the potential for operational noise impacts included the new pumps, motors, and mechanical equipment within the new WTP building and the new 400-kW emergency back-up generator at the new WTP building. A portable emergency back-up generator would also be operated at the Ewing Pump Station. As described under Regulatory Context above, the County's General Plan identifies daytime (7:00 AM to 7:00 PM), evening (7:00 PM to 10:00 PM) and nighttime (10:00 PM to 7:00 AM) noise level standards for the maximum allowable noise exposure for stationary noise sources (i.e., generators) at the property line of the receiving land use.

The maximum sound level is 75 dB L_{max} (55 dB L_{eq}) for daytime, 70 dB L_{max} (50 dB L_{eq}) for evening, and 65 dB L_{max} (45 dB L_{eq}) for nighttime. The noise standard is applied to outdoor activity areas. The Trinity County General Plan Noise Element identifies outdoor activity areas as patios, decks, balconies, outdoor eating areas, swimming pool areas, yards of dwellings, and other areas that have been designated for outdoor activities and recreation.

The decibel level for a 400-kW diesel generator is estimated to be ~85 dBA at 50 feet, depending on the model and manufacturer. The proposed generator at the WTP is located about 550 feet northeast of the nearest residential outdoor activity area. Disregarding the noise attenuation due to intervening topography, barriers, wind, and other factors, noise levels at the outdoor activity area could reach about 59 dBA. The generator would be installed in a sound enclosure, which is expected to reduce noise levels by ~15 to 20 dBA; noise levels from the generator at the nearest outdoor activity area would be about 39 to 44 dBA, which is in compliance with the County's noise standards; intervening structures would provide additional noise attenuation.

There are no distinguishable outdoor activity areas on residential properties in proximity to the Ewing Pump Station. The proposed generator at the Ewing Pump Station is located about 450 feet north of the property line of the nearest residential property. Noise levels at the property line nearest the Ewing Pump Station would be about 61 dBA. However, intervening topography blocks the line of site of the generator, and thus noise levels would be substantially lower. Further, both of the generators would be operated only in the event of an emergency, such as a power outage and periodically for daytime testing.

Therefore, noise levels generated during operation would not exceed the County's threshold for stationary noise sources as outlined in the Trinity County General Plan; operational noise would be less than significant.

Conclusion

As discussed above, **MM 4.13.1, MM 4.13.2, and MM 4.13.3** would minimize noise during construction, and operational noise would comply with the County's noise standards. Therefore, impacts would be ***less than significant.***

Question B

Excessive vibration during construction occurs only when high vibration equipment (e.g., compactors, large dozers, etc.) is operated. The proposed project may require limited use of equipment with high vibration levels during construction. Potential effects of ground-borne vibration include perceptible movement of building floors, rattling windows, shaking of items on shelves or hangings on walls, and rumbling sounds. In extreme cases, vibration can cause damage to buildings. Both human and structural responses to ground-borne vibration are influenced by various factors, including ground surface, distance between the source and the receptor, and duration.

The most common measure used to quantify vibration amplitude is the peak particle velocity (PPV). PPV is a measurement of ground vibration defined as the maximum speed (measured in inches per second) at which a particle in the ground is moving relative to its inactive state. Although there are no federal, state, or local regulations for ground-borne vibration, Caltrans has developed criteria for evaluating vibration impacts, both for potential structural damage and for human annoyance. The Caltrans Transportation and Construction Vibration Guidance Manual (2013) was referenced in the analysis of construction-related vibration impacts.

Table 4.13-4 includes the potential for damage to various building types as a result of ground-borne vibration. Transient sources include activities that create a single isolated vibration event, such as blasting. Continuous, frequent, or intermittent sources include jack hammers, bulldozers, and vibratory rollers.

TABLE 4.13-4
Structural Damage Thresholds from Ground-Borne Vibration

Structure Type	Vibration Level (Inches per Second PPV)	
	Transient Sources	Continuous/Frequent/ Intermittent Sources
Older residential structures	0.5	0.3
Newer residential structures	1.0	0.5
Historic and some old buildings	0.5	0.25
Newer industrial/commercial buildings	2.0	0.5

Source: Caltrans Transportation and Construction Vibration Guidance Manual, 2020.

Table 4.13-5 indicates the potential for annoyance to humans as a result of ground-borne vibration.

TABLE 4.13-5
Human Response to Ground-Borne Vibration

Human Response	Vibration Level (Inches per Second PPV)	
	Transient Sources	Continuous/Frequent/ Intermittent Sources
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.9	0.10
Disturbing	2.0	0.4

Source: Caltrans Transportation and Construction Vibration Guidance Manual, 2020.

Table 4.13-6 indicates vibration levels for various types of construction equipment that may be used for the proposed project.

TABLE 4.13-6
Examples of Construction Equipment Ground-Borne Vibration

Equipment Type	Inches per Second PPV at 25 feet
Bulldozer (small)	0.003
Bulldozer (large)	0.089
Jackhammer	0.035
Loaded trucks	0.076
Vibratory roller	0.210

Source: Caltrans Transportation and Construction Vibration Guidance Manual, 2020.

Vibration levels from construction equipment use at varying distances from the source can be calculated using the following formula:

$PPV_{Equipment} = PPV_{Ref} \times (25/D)^n$

In this equation, PPV_{Ref} = reference PPV at 25 feet, D = distance from equipment to the receiver in feet, and n = 1.1 (the value related to the attenuation rate through ground). Based on this equation, a vibratory roller at a distance of 320 feet would generate a PPV of 0.013 inches per second, while a jackhammer would generate a PPV of up to 0.002 inches per second.

As shown in **Table 4.13-4**, vibration levels would not be at a level that would cause structural damage. In addition, as shown in **Table 4.13-5**, these vibration levels would be barely perceptible at the nearest residence.

New equipment at the WTP building has a potential to result in a permanent increase in groundborne vibration or groundborne noise due to the operation of mechanical equipment (e.g., pumps, motors, compressors, etc.). Due to the distance between the WTP building and the nearest residence (~320 feet), it is not expected that equipment at the WTP would generate vibration that would be detectable at the residence. Therefore, impacts associated with vibration would be ***less than significant.***

Question C

According to the Federal Aviation Administration (FAA), the project site is not located in the vicinity of a private airstrip. As stated in Section 4.9 under Question E, the Hayfork Airport is located approximately 0.8 miles southwest of the WTP site (Federal Aviation Administration, n.d.). According to the Trinity County Airport Land Use Compatibility Plan (ALUCP) (Trinity County, 2009), the project area is located within the Compatibility Zone and Influence Area for the Hayfork Airport. The ALUCP establishes safety zones for areas on the airport property and areas adjacent to the airport property. The project study area is located within Zone D, which indicates areas within common aircraft flight paths.

Although construction workers would be completing improvements 0.8 miles northeast of the airport, the project does not include any components that would increase the potential for people living or working in the project area to be exposed to excessive noise associated with the airport in the long term. Impacts would be ***less than significant***.

CUMULATIVE IMPACTS

The project would not result in adverse effects associated with vibration either during construction or operation. Although there would be an increase in operational noise, all projects in Trinity County must comply with the County's noise standards for new development. The proposed project would result in a temporary increase in daytime noise levels during construction activities. However, with implementation of **Mitigation Measures MM 4.13.1 through MM 4.13.3,** the proposed project's contribution to cumulative noise impacts would be ***less than significant***.

MITIGATION

MM 4.13.1 Construction activities (excluding activities that would result in a safety concern to the public or construction workers) shall be limited to between the daytime hours of 7:00 A.M. and 7:00 P.M., Monday through Saturday. Construction activities shall be prohibited on Sundays and federal/state recognized holidays. Exceptions to these limitations may be approved by the Trinity County Waterworks District No. 1 Operations Manager or his/her designee for activities that require interruption of utility services to allow work during low demand periods, or to alleviate traffic congestion and safety hazards.

MM 4.13.2 Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.

MM 4.13.3 Stationary construction equipment (generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses.

DOCUMENTATION

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U.S. Government Publishing Office. 2013. California Code of Regulations, Title 29, Part 1926 (Safety and Health Regulations for Construction). https://www.gpo.gov/fdsys/pkg/CFR-2013-title29-vol8/pdf/CFR-2013-title29-vol8-part1926.pdf. Accessed September 2023.

4.14 POPULATION AND HOUSING

Would the project:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

REGULATORY CONTEXT

There are no federal or State regulations pertaining to population or housing that apply to the proposed project.

LOCAL

Trinity County General Plan, Housing Element

The Housing Element of the County's General Plan was adopted in 2019 to assist with adequately planning to meet existing and projected housing needs. The goal of the Housing Element is to provide an adequate supply of sound, affordable housing units in a safe and pleasant environment that enhances community quality of life for the present and future residents of Trinity County, regardless of race, age, religion, sex, marital status, ethnic background, or disabilities.

Trinity County, Hayfork Community Plan

The 1996 Hayfork Community Plan provides a framework to guide development of public and private projects in the Hayfork area. The plan has been designed to meet the particular needs of the Hayfork area while also being consistent with the goals and objectives of the County's General Plan. The goals, objectives, policies, and resulting zoning maps guide future growth and development in the community by balancing the need for housing in the region, protecting lands with good soils for agricultural uses, avoiding development in areas subject to flooding or which are marginally suitable for residential use, protecting water quality and encouraging actions that will lead to economic diversification.

DISCUSSION OF IMPACTS

Question A

A project would induce unplanned population growth if it conflicted with a local land use plan (e.g., a General Plan) and induced growth in areas that aren't addressed in a General Plan or other land use plan. As stated in Section 3.1 (Project Background, Need, and Objectives), the purpose of the proposed project is to repair and replace aging infrastructure, improve fire flows, improve efficiency in the water treatment process, reduce ongoing maintenance costs, and ensure a safe and reliable potable water supply for customers in the District's water service area. The improvements do not anticipate growth in the District's service area beyond that identified in the Trinity County General Plan and Hayfork Community Plan. Therefore, there would be ***no impact.***

Question B

No structures for human occupancy would be demolished to accommodate the proposed improvements; therefore, there would be ***no impact.***

CUMULATIVE IMPACTS

As documented above, the proposed project would not directly or indirectly induce substantial unplanned population growth in the area. Therefore, the proposed project would not contribute to cumulative impacts associated with population and housing.

MITIGATION

None necessary

DOCUMENTATION

Trinity County. 2020. Trinity County General Plan Housing Element (2019-2024). https://www.trinitycounty.org/sites/default/files/Planning/documents/GeneralPlan_CommPlans/Trinity%20HE%20Certification%20Draft%2003_30_20_clean.pdf. Accessed September 2023.

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4.15 PUBLIC SERVICES

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

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Fire protection?	☐	☐	☐	☒
b. Police protection?	☐	☐	☐	☒
c. Schools?	☐	☐	☐	☒
d. Parks?	☐	☐	☐	☒
e. Other public facilities?	☐	☐	☐	☒

REGULATORY CONTEXT

There are no federal, State, or local regulations pertaining to public services that apply to the proposed project.

DISCUSSION OF IMPACTS

Questions A through E

The proposed project does not include the construction of houses or businesses that would increase the number of residents in the area. In addition, as discussed in Section 4.14 under Question A, the proposed project would not induce unplanned population growth in the area. Therefore, the proposed project would not result in the need for new or physically altered governmental facilities; there would be ***no impact***.

CUMULATIVE IMPACTS

As described above, the proposed project would not increase the demand for long-term public services; therefore, no cumulatively considerable impacts would occur.

MITIGATION

None necessary

DOCUMENTATION

Trinity County. 1996. Hayfork Community Plan https://www.trinitycounty.org/sites/default/files/Planning/documents/GeneralPlan_CommPlans/Combined%20Hayfork%20Community%20Plan_0.pdf. Accessed September 2023.

4.16 RECREATION

Would the project:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

REGULATORY CONTEXT

There are no federal, State, or local regulations pertaining to recreation that apply to the proposed project.

DISCUSSION OF IMPACTS

Questions A and B

The proposed project does not include the construction of houses or businesses that would increase the number of residents in the area. In addition, as discussed in Section 4.14 under Question A, the proposed project would not induce unplanned population growth in the area, either directly or indirectly. Therefore, the proposed project would not result in an increased use of existing recreational facilities or require the construction or expansion of recreational facilities. There would be ***no impact.***

CUMULATIVE IMPACTS

As stated above, the proposed project would not impact recreational facilities or require the construction or expansion of recreational facilities; therefore, no cumulatively considerable impacts would occur.

MITIGATION

None necessary

DOCUMENTATION

Trinity County. 1973. Trinity County Open Space and Conservation Elements. https://www.trinitycounty.org/node/1901. Accessed September 2023.

_____. 1996. Hayfork Community Plan. https://www.trinitycounty.org/sites/default/files/Planning/documents/GeneralPlan_CommPlans/Combined%20Hayfork%20Community%20Plan_0.pdf. Accessed September 2023.

4.17 TRANSPORTATION

Would the project:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☐	☒
b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b) (criteria for analyzing transportation impacts – vehicle miles traveled)?	☐	☐	☐	☒
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d. Result in inadequate emergency access?	☐	☐	☒	☐

REGULATORY CONTEXT

There are no federal regulations pertaining to transportation/traffic that apply to the proposed project.

STATE

California Streets and Highways Code

California Streets and Highways Code §660 *et seq.* requires that an encroachment permit be obtained from Caltrans prior to the placement of structures or fixtures within, under, or over State highway right-of-way (ROW). This includes, but is not limited to, utility poles, pipes, ditches, drains, sewers, or other above-ground or underground structures.

CEQA Guidelines

SB 743 of 2013 (CEQA Guidelines §15064.3 *et seq.*) was enacted as a means to balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of GHGs. Pursuant to SB 743, traffic congestion is no longer considered a significant impact on the environment under CEQA. The new metric bases the traffic impact analysis on vehicle-miles traveled (VMT). VMT refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's VMT, including whether to express the change in absolute terms, per capita, per household, or in any other measure.

LOCAL

Trinity County General Plan, Circulation Element

The Circulation Element of the County's General Plan was adopted in 2002 to provide maintenance and safety improvements to the existing roadway system and develop facilities for non-motorized modes of transportation. The objectives and policies support the County's overall goal of providing an effective and coordinated transportation system, at reasonable costs, consistent with socioeconomic and environmental needs within Trinity County. The Circulation Element includes the following Policies that apply to the proposed project:

Trinity County General Plan – Circulation Element		
Policies:	1.4.C	Projects or land uses that will generate heavy commercial traffic or high trip volumes shall be mitigated as determined by the decision-making body.
	1.5.D	Work with local, State, and Federal agencies to ensure that existing and/or proposed environmental regulations achieve protection of the environment without sacrificing public safety or placing unnecessary restrictions on street and highway projects.
	1.6.A	The minimum acceptable Level of Service (LOS) standard for roadway and intersection operation in Trinity County is "D". No public highway or roadway should be allowed to fall to or below LOS "E".

DISCUSSION OF IMPACTS

Questions A through C

The proposed project does not include the construction of housing or commercial/industrial development that would cause a permanent increase in traffic or VMT in the area. Although an increase in VMT would occur during construction, this is a temporary impact that would cease at completion of the project. The proposed project does not include any components that would remove or change the location of any sidewalk, bicycle lane, trail, or public transportation facility, or increase the potential for hazards due to a design feature or incompatible uses. There would be ***no impact***.

Question D

As stated in Section 4.9 under Question F, no work would occur in off-site roadways, and staging of construction equipment would occur on the WTP property and Ewing Pump Station site. Although a temporary increase in traffic on local roadways could occur during construction and could interfere with emergency response times, construction-related traffic would be minor due to the overall scale of the construction activities. Further, construction-related traffic would be spread over the duration of the construction schedule and would be minimal on a daily basis. Therefore, impacts would be ***less than significant.***

CUMULATIVE IMPACTS

The proposed project would not result in a permanent increase in VMT and would not conflict with programs, plans, ordinances, or policies addressing the circulation system. Further, the project would not permanently increase hazards due to design features or incompatible uses. There would be a temporary increase in traffic associated with construction workers and equipment during construction. However, no concurrent construction activities near the roadway network are anticipated. In addition, construction traffic is a temporary impact that would cease at completion of the project; therefore, the project's transportation-related impacts would not be cumulatively considerable.

MITIGATION

None necessary.

DOCUMENTATION

Trinity County. 2002. Trinity County General Plan Circulation Element. https://www.trinitycounty.org/node/1901. Accessed April 2023.

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4.18 TRIBAL CULTURAL RESOURCES

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code (PRC) 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:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. A resource listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC §5020.1(k)?	☐	☒	☐	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC §5024.1? In applying the criteria set forth in subdivision (c) of PRC §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

REGULATORY CONTEXT

There are no federal or local regulations pertaining to tribal cultural resources that apply to the proposed project.

STATE

California Environmental Quality Act

Assembly Bill 52 of 2014 (Public Resources Code [PRC] §21084.2) establishes that *"a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment."* In order to determine whether a project may have such an effect, a lead agency is required to consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if:

1. The tribe requested to the lead agency, in writing, to be informed through formal notification of proposed projects in the geographical area; and

2. The tribe responds, in writing, within 30 days of receipt of the formal notification and requests the consultation.

The consultation must take place prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report. Pursuant to PRC §21084.3, lead agencies must, when feasible, avoid damaging effects to a tribal cultural resource and must consider measures to mitigate any identified impact.

PRC §21074 defines "tribal cultural resources" as either of the following:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either:

   a. Included or determined to be eligible for inclusion in the CRHR; or

   b. Included in a local register of historical resources as defined in PRC §5020.1(k).

2. A resource determined by the lead agency, taking into consideration the significance of the resource to a California Native American tribe, to be significant pursuant to criteria set forth in PRC §5024.1(c).

A historical resource described in §21084.1, a unique archaeological resource as defined in §21083.2(g), or a "nonunique archaeological resource" as defined in §21083.2(h) may also be a tribal cultural resource if it meets this criterion.

DISCUSSION OF IMPACTS

Questions A and B

See discussion in Section 1.7 (Tribal Cultural Resources Consultation) and Section 4.5 under Questions A and B.

On January 28, 2022, ENPLAN contacted Native American tribes that were identified by the NAHC with a request to provide comments on the proposed project. The Shasta Indian Nation responded on February 2, 2022, stating that the Shasta Indian Nation has no known cultural resources or sites of interest or concern in the project area. The Bear River Band of the Rohnerville Rancheria responded on February 4, 2022, stating that the project area is outside of their territory.

Follow-up e-mails and telephone calls were placed on July 24, 2023, to the tribal members that were previously identified by the NAHC. The Redding Rancheria responded on August 4, 2023, stating that the project is located in the Trinity area and there is no need to continue consultation with the Redding Rancheria. No other comments or concerns were reported by any Native American representative or organization.

Mitigation Measures MM 4.5.1 and 4.5.2 address the inadvertent discovery of cultural resources. These measures ensure that impacts to tribal cultural resources are ***less than significant.***

CUMULATIVE IMPACTS

Cumulative projects in the vicinity of the project area have the potential to impact tribal cultural resources. Tribal cultural resources are afforded special legal protections designed to reduce the cumulative effects of development. Potential cumulative projects and the proposed project would be subject to the protection of tribal cultural resources afforded by PRC §21084.3. Given the non-renewable nature of tribal cultural resources, any impact to tribal cultural sites, features, places, landscapes, or objects could be considered cumulatively considerable. As discussed above, no cultural resources of significance to a California Native American tribe were identified within the project area. In addition, **Mitigation Measures MM 4.5.1 and 4.5.2** address the inadvertent discovery of cultural resources; therefore, the proposed project would have less than significant cumulative impacts to tribal cultural resources.

MITIGATION

Implementation of **Mitigation Measures MM 4.5.1 and 4.5.2.**

DOCUMENTATION

ENPLAN. 2023. Cultural Resources Inventory: Hayfork Water Treatment Plant Upgrade Project. Confidential document on file at NEIC/CHRIS.

4.19 UTILITIES AND SERVICE SYSTEMS

Would the project:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☒
c. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☐	☒
d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e. Comply with federal, state and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

REGULATORY CONTEXT

There are no federal regulations pertaining to utilities and service systems that apply to the proposed project.

STATE

California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act (CIWMA) of 1989 is designed to increase landfill life and conserve other resources through increased source reduction and recycling. Goals of the CIWMA include diverting approximately 50 percent of solid waste from landfills and identifying programs to stimulate local recycling in manufacturing and the purchase of recycled products. The CIWMA requires cities and counties to prepare Solid Waste Management Plans and Source Reduction and Recycling Elements to implement CIWMA goals.

LOCAL

Trinity County General Plan, Circulation Element

The Circulation Element of the County's General Plan was adopted in 2002 to provide maintenance and safety improvements to the existing roadway system and develop facilities for non-motorized modes of transportation. The objectives and policies support the County's overall goal of providing an effective and coordinated transportation system, at reasonable costs, consistent with socioeconomic and environmental needs within Trinity County. The Circulation Element includes the following Goal, Objective, and Policies that apply to the proposed project:

Circulation Element – Public Utilities and Facilities		
Goal:	8	Promote orderly and efficient expansion of public utilities and facilities to meet project needs.
Objective:	8.1	Coordinate the development and use of public utilities and facilities with community development and growth.
Policies:	8.1.A	Consider the availability, condition and capacity of community utilities and facilities when evaluating land divisions, development projects and transportation projects.
	8.1.C	Support the efforts of communities and special districts to obtain funding to develop community infrastructure systems for fire, water, sewage and other important community services.

Trinity County, Hayfork Community Plan

The 1996 Hayfork Community Plan provides a framework to guide development of public and private projects in the Hayfork area. The plan has been designed to meet the particular needs of the Hayfork area while also being consistent with the goals and objectives of the County's General Plan. The Hayfork Community Plan includes the following Goals, Objectives, and Policies that apply to the proposed project:

Hayfork Community Plan – Public Services and Facilities		
Goals:	2	Provide for sufficient quantities of safe drinking water in the Plan Area.
	3	Reduce, recycle, and reuse waste materials generated in the Plan Area.
Objectives:	2.1	Maintain or improve water supplies in the Plan Area.
	3.1	Promote reduction, recycling, and reuse of waste materials.
Policies:	2.1a	Support efforts of TCWD #1 to expand their water storage and distribution system.
	3.1e	Maintain the Hayfork transfer site so that it is safe, clean, and meets all requirements of the California Integrated Waste Management Board and Regional Water Quality Control Board.

DISCUSSION OF IMPACTS

Question A

As discussed under Section 4.14 under Question A, the proposed project would not induce unplanned population growth in the area, either directly or indirectly, in a manner that would require new or expanded utility infrastructure. Therefore, other than the improvements analyzed in this Initial Study (Section 3.2, Project Components/Physical Improvements), the proposed project would not result in the need for new or expanded utility infrastructure or the relocation of such infrastructure. Therefore, impacts would be ***less than significant.***

Questions B and C

Relatively small amounts of water would be used during project construction, but this is a temporary impact. As discussed in Section 4.14 under Question A, the proposed project would not induce population growth either directly or indirectly that would require additional long-term water supplies. The project would be served by an Onsite Wastewater Treatment System and there would be no demand for wastewater treatment. Therefore, there would be ***no impact***.

Questions D and E

The proposed project would not result in a significant long-term demand for additional solid waste services. Solid waste would be generated during construction, primarily from demolition of portions of the existing backwash pump stations.

Construction debris would be disposed of at the Weaverville Transfer Station, located ~18 miles northeast of the project site in the community of Weaverville. The Weaverville Transfer Station is permitted through the California Integrated Waste Management Board (CIWMB). The maximum permitted throughput is 45 tons per day (CalRecycle, 2023a). The Transfer Station is subject to periodic inspections by Trinity County to ensure compliance with the CIWMB permit. Although the transfer station occasionally reaches capacity and is unable to accept additional waste on certain days, waste and recycled materials can be disposed of at another transfer station in the County.

Because there are no active landfills in Trinity County, all solid waste in the County is trucked to the Anderson Landfill in Anderson, California. According to CalRecycle, the maximum permitted capacity of the Anderson Landfill is 16,353,000 cubic yards. As of January 1, 2015, the remaining capacity was 10,409,132 cubic yards, and the landfill's estimated closure year was 2093 (CalRecycle, 2023b). The construction contractor would be responsible for disposing of all construction waste. The District would ensure through contractual obligations that the contractor complies with all federal, State, and local statutes related to solid waste disposal. Therefore, impacts would be ***less than significant.***

CUMULATIVE IMPACTS

Utility and service systems in the area would not experience a permanent increase in demand for services over existing conditions. Although solid waste would be generated during construction, no permanent increase in solid waste generation would occur. Therefore, the proposed project would have ***less than significant*** cumulative impacts to utility and service systems.

MITIGATION

None necessary

DOCUMENTATION

CalRecycle. 2023a. Facility Details: Weaverville Transfer Station (53-AA-0037). https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/5187. Accessed September 2023.

_____. 2023b. Facility Details: Anderson Landfill, Inc. (45-AA-0020). https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1049?siteID=3457. Accessed September 2023.

Trinity County. 2002. Trinity County General Plan Circulation Element. https://www.trinitycounty.org/sites/default/files/Planning/documents/GeneralPlan_CommPlans/Circulation%20Element.pdf/. Accessed May 2023.

_____. 1996. Hayfork Community Plan. https://www.trinitycounty.org/sites/default/files/Planning/documents/GeneralPlan_CommPlans/General%20Plan%20Land%20Use%20Designations.pdf. Accessed September 2023.

4.20 WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	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?	☐	☐	☒	☐

REGULATORY CONTEXT

There are no federal regulations pertaining to wildfire that apply to the proposed project.

STATE

California Department of Forestry and Fire Protection (CAL FIRE)

The Bates Bill (AB 337), enacted in 1992, required CAL FIRE to work with local governments to identify high fire hazard severity zones throughout each county in the State. CAL FIRE adopted Fire Hazard Severity Zone (FHSZ) Maps for State Responsibility Areas (SRA) in November 2007. Pursuant to California Government Code §51175-51189, CAL FIRE also recommended FHSZs for Local Responsibility Areas (LRA). Over the years, CAL FIRE has updated the maps and provided new recommendations to local governments based on fire hazard modeling.

The fire hazard model considers wildland fuels (natural vegetation that burns during the wildfire); topography (fires burn faster as they burn up-slope); weather (fire burns faster and with more intensity when air temperature is high, relative humidity is low, and winds are strong); and ember production and movement (how far embers move and how receptive the landing site is to new fires). The model recognizes that some areas of California have more frequent and severe wildfires than other areas.

California Fire Code

California Fire Code (CFC), Part 9, Chapter 49 (Wildland-Urban Interface Fire Areas), and California Building Code (CBC) Chapter 7A (Materials and Construction Methods for Exterior Wildfire Exposure) include standards for new construction in Wildland-Urban Interface Fire Areas (fire hazard severity zones). The purpose of the standards is to prevent a building from being ignited by flying embers that can travel as much as a mile away from a wildfire and to contribute to a systematic reduction in fire-related losses through the use of performance and prescriptive requirements.

LOCAL

Trinity County General Plan, Safety Element

The Safety Element of the County's General Plan was adopted in 2014 to provide guidelines to promote safety to residents and visitors of Trinity County; and, to reduce the potential risk of death, injuries, property damage, and the economic and social disruptions resulting from hazards such as fires, floods, earthquakes, landslides, and other hazards. The Safety Element includes the following Goal, Objective, and Policies that apply to the proposed project:

Trinity County General Plan – Safety Element		
Goal:	S.5	Reduce fire hazards in wildland, wildland/urban interface, and developed areas through a comprehensive program that encourages the development and maintenance of fire adapted communities and a more fire-resilient landscape.
Objective:	S.5.4	Ensure appropriate fire protection standards for all development that emphasizes fire resiliency.
Policies:	S.5.4.A	Development shall be located, designed and managed to reduce fire risks to life, property and natural resources and incorporate adequate fire protection consistent with the General Plan and adopted regulations. New Development shall incorporate the following in a manner consistent with local and state regulations: i. Fuel breaks or greenbelts and access to them consistent with topography. ii. Adequate and accessible defensible space. iii. At least two ingress-egress routes to a public roadway, if practicable or alternative routes accessible to emergency response equipment. iv. Access routes sufficient to accommodate evacuating vehicles and emergency response equipment. v. Adequate water supply, including fire hydrants where appropriate, for fire suppression shall be provided for all new developments, as determined by the local fire district, California Department of Forestry and Fire Protection, Trinity County Subdivision Ordinance, and the Trinity County Fire Safe Ordinance. vi. New development shall meet all federal, state and local regulations for fire protection; including the encouragement of upgrading existing structures to adopted standards. vii. Development of property not served by a community water system shall maintain sufficient water supplies on site to be used for fire protection consistent with local and state regulations.

Trinity County, Hayfork Community Plan

The 1996 Hayfork Community Plan provides a framework to guide development of public and private projects in the Hayfork area. The plan has been designed to meet the particular needs of the Hayfork area while also being consistent with the goals and objectives of the County's General Plan. The Hayfork Community Plan includes the following Goal, Objective, and Policy that apply to the proposed project:

Hayfork Community Plan – Hazards		
Goal:	1	Protect people, property, and public and private investments from fire-related hazards.
Objective:	1.3	Address fire protection needs during the location, design, and construction phases of new industrial, commercial, and residential developments.
Policy:	1.3c	Require site-specific fire protection measures/design for subdivisions and other developments at the residential-wildland interface.

DISCUSSION OF IMPACTS

According to FHSZ maps prepared by CAL FIRE, the WTP site and Ewing Pump Station are located within a Very High FHSZ in a State Responsibility Area (SRA).

Question A

See discussion in Section 4.9 under Question F. The proposed project does not involve a use or activity that could interfere with long-term emergency response or emergency evacuation plans for the area. Although a temporary increase in traffic could occur during construction and could interfere with emergency response times, construction-related traffic would be minor due to the overall scale of the construction activities. Further, construction-related traffic would be spread over the duration of the construction schedule and would be minimal on a daily basis. Access to properties in the project area would be maintained throughout construction. Therefore, impacts would be ***less than significant.***

Questions B and C

Steep slopes and dense vegetation in the project vicinity increase wildfire risks in the area. Equipment used during construction activities, including power tools and acetylene torches, may create sparks that could ignite dry grass. Because the project is located in a Very High FHSZ in a SRA, construction activities are subject to the PRC wildfire measures and CFC regulations that identify minimum safeguards that must be implemented during construction, alteration, and demolition activities to protect life and property from fire.

In addition, as stated in Section 4.9 under Question G, CBC standards for roofing, siding, decking, windows, and vents apply in all SRAs. At a minimum, roof coverings will be Class A, which is the highest rating and provides the highest resistance to fire. Exterior walls will be ignition resistant/non-combustible. Tanks and gas piping will be installed in accordance with NFPA 58 and CFC requirements. The purpose of the CBC and CFC standards is to prevent a building from being ignited by flying embers and to contribute to a systematic reduction in fire-related losses through the use of performance and prescriptive requirements.

The proposed project would not involve construction of public roads or otherwise intrude into natural spaces in a manner that would increase wildfire hazards in the long term, and would not require construction of fuel breaks, installation of emergency water sources, or other fire prevention/ suppression infrastructure. The project includes installation of an overhead electrical line and new power poles at the WTP site; however, adequate fire clearance would be maintained around the lines and associated facilities.

Compliance with existing regulations would avoid/minimize the risk of wildfires and the exposure of people to pollutant concentrations from a wildfire. In the long-term, the project would increase water storage capacity and improve fire flows, which would improve the ability to fight wildfires in the area. Therefore, impacts would be ***less than significant.***

Question D

The severity of post-fire risks is based on several factors, including the intensity of the fire, the slope and stability of the burned area, physical properties of the soils, and the intensity of post-fire precipitation.

The WTP site is located approximately 1.7 miles south of the 2021 Monument Fire burn scar; however, the project site is located such that intervening topography would provide a barrier and proposed structures would not be exposed to significant risks as a result of post-fire slope instability associated with the Monument Fire.

Construction of the proposed improvements would require extensive grading on hillside natural grades and steep cut slopes to create level building pads. However, as discussed in Section 4.7 under Question A, the Geotechnical Report includes recommendations for setbacks from slopes to minimize potential risks. After completion of slope grading, erosion protection and hydro-seeding would be provided on all soil surfaces and slope planting would also be completed on all exposed surfaces of cut and fill slopes, which would stabilize the slopes and reduce landslide risks as well as risks associated with downslope or downstream flooding. In addition, the proposed project includes the construction of a retaining wall and drainage improvements where the water treatment building pad is cut into the existing hillside. The 90 percent design plans incorporate recommendations for the retaining wall and drainage as recommended in the Geotechnical Report.

Therefore, the proposed project would not expose people or structures to significant risks related to downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. Impacts would be ***less than significant.***

CUMULATIVE IMPACTS

Although a temporary increase in traffic could occur during construction of the proposed project and could interfere with emergency response times, construction-related traffic would be minor due to the overall scale of the construction activities. In addition, cumulative projects must implement temporary traffic control measures (i.e., signs, cones, flaggers, etc.) to ensure that emergency response vehicles are not hindered by construction activities. Therefore, there would be no cumulative impact even if more than one project were under construction at the same time.

In the long term, the proposed project would not contribute individually or cumulatively to increased risks of wildfire, effects of fire prevention/suppression infrastructure, or post-fire hazards. Further, project implementation would have a net positive effect on fire suppression capabilities due to increased water storage and improved fire hydrant flow capacities. Therefore, the project's cumulative contribution to increased risks associated with wildfire would be ***less than significant***.

MITIGATION

None necessary.

DOCUMENTATION

California Department of Forestry and Fire Protection (CAL FIRE). 2023. Fire Hazard Severity Zones in State Responsibility Area Viewer. https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008. Accessed September 2023.

Trinity County. 2014. Trinity County General Plan Safety Element. https://www.trinitycounty.org/node/1901. Accessed September 2023.

_____. 1996. Hayfork Community Plan. https://www.trinitycounty.org/sites/default/files/Planning/documents/GeneralPlan_CommPlans/Combined%20Hayfork%20Community%20Plan_0.pdf. Accessed September 2023.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

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

DISCUSSION OF IMPACTS

Question A

As discussed in the applicable environmental resource sections in this Initial Study, the proposed project could result in temporarily increased air emissions, possible impacts on special-status wildlife species, disturbance of nesting birds (if present), loss of trees, possible impacts to wetlands and other waters of the U.S. and/or State, the introduction and spread of noxious weeds during construction, impacts on cultural resources and tribal cultural resources (if present), impacts related to geologic/soils conditions, impacts on paleontological resources (if present), and temporarily increased noise levels. However, mitigation measures are included to ensure that impacts are ***less than significant.***

Question B

The potential cumulative impacts of the proposed project have been analyzed within the discussion of each environmental resource area above. Implementation of the mitigation measures identified in Section 1.10 ensure that the project's cumulative impacts are ***less than significant.***

Question C

As discussed in the applicable environmental resource sections in this Initial Study, the proposed project could result in adverse effects on human beings due to temporarily increased air emissions and temporarily increased noise and vibration levels. However, as identified in Section 4.3 (Air Quality) and Section 4.13 (Noise), mitigation measures are included to ensure that impacts are ***less than significant.***

SECTION 5.0 LIST OF PREPARERS

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SECTION 6.0 ABBREVIATIONS AND ACRONYMS

AB	Assembly Bill
ALUCP	Trinity County Airport Land Use Compatibility Plan
AQMD	Air Quality Management District
APE	Area of Potential Effects
BMP	Best Management Practice
BSR	Biological Study Report
BUG	Backlight, Uplight, and Glare
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalARP	California Accidental Release Prevention Program
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CAP	Criteria Air Pollutants
CARB	California Air Resources Board
CASGEM	California Statewide Groundwater Elevation Monitoring
CBSC	California Building Standards Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	Methane
CIWMA	California Integrated Waste Management Act
CMU	Concrete Masonry unit
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
County	Trinity County
CRHR	California Register of Historical Resources
CRI	Cultural Resources Inventory and Evaluation Report
CWA	Clean Water Act
CY	Cubic Yards
dBA	Decibels

DMP	Disinfection Byproduct
District	Trinity County Waterworks District No. 1
DOC	Department of Conservation
DPS	Distinct Population Segment
DTSC	California Department of Toxic Substances Control
DWSRF	Drinking Water State Revolving Fund
EHS	Extremely Hazardous Substance
EO	Executive Order
ESU	Evolutionary Significant Unit
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Act
FESA	Federal Endangered Species Act
FHSZ	Fire Hazard Severity Zone
GAC	Granulated Activated Carbon
GHG	Greenhouse Gas Emissions
GSPs	Groundwater Sustainability Plans
GWP	Global Warming Potential
H_2S	Hydrogen Sulfide
HAA5	Haloacetic acids
HCP	Habitat Conservation Plan
HFC	Hydrofluorocarbons
HSIP	Highway Safety Improvement Program
IBC	International Building Code
IS	Initial Study
KMn04	Potassium Permanganate
LHMP	Local Hazard Mitigation Plan
LRA	Local Responsibility Area
LTIESWR	Long Term 1 Enhanced Surface Water Treatment Rule
LUP	Linear Underground/Overhead Projects
MACT	Maximum Achievable Control Technology
MBTA	Migratory Bird Treaty Act
MCL	Maximum Contaminant Level
MDD	Maximum Daily Demand
mg/m^3	Milligrams per Cubic Meter
MND	Mitigated Negative Declaration
MPO	Metropolitan Planning Organization

MRZ	Mineral Resource Zone
MS4s	Small Municipal Separate Storm Sewer Systems
MSR	Municipal Service Review
MUTCD	California Manual on Uniform Traffic Control Devices
MWP	Master Water Plan
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NEIC	Northeast Information Center of the California Historical Resources Information System
NEHRA	National Earthquake Hazards Reduction Act
NEPA	National Environmental Policy Act
NF_3	Nitrogen Trifluoride
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
N_2	Nitrogen
N_2O	Nitrous Oxide
NO	Nitric Oxide
NO_2	Nitrogen Dioxide
NO_X	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System
NPPA	California Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWP	Nationwide Permit
O_2	Oxygen
O_3	Ozone
OHWM	Ordinary High-Water Mark
OSHA	Occupational Safety and Health Act
Pb	Lead
PER	Preliminary Engineering Report
PF	Public Facilities
PFC	Perfluorocarbons
$PM_{2.5}$	Particulate Matter, 2.5 microns in size
PM_{10}	Particulate Matter, 10 microns in size
PPB	Parts per Billion
PPM	Parts per Million
PRC	Public Resources Code
Project	Hayfork Water Treatment Plant Upgrade Project
PVC	Polyvinyl Chloride

RCAP	Regional Climate Action Plan
RCRA	Resource Conservation and Recovery Act
RMP	Risk Management Plan
ROG	Reactive Organic Gases
ROW	Right of Way
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SB	Senate Bill
SCADA	Supervisory Control and Data Acquisition
SCS	Sustainable Communities Strategy
SDWA	Safe Drinking Water Act
SF_6	Sulfur Hexafluoride
SGMA	Sustainable Groundwater Management Act
SHPO	State Historic Preservation Officer
SMM	Standard Mitigation Measures
SIP	State Implementation Plan
SMARA	Surface Mining and Reclamation Act
SOI	Sphere of Influence
SO_2	Sulfur Dioxide
SO_4	Sulfates
SO_X	Sulfur Oxides
SRA	State Responsibility Area
SRWR	Sacramento River Winter-Run
SSC	Species of Special Concern
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TPZ	Timberland Production Zone
TTHM	Total Trihalomethanes
USACE	United States Army Corps of Engineers
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VDECS	Verified Diesel Emission Control Strategies
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	Vehicle Miles Travelled
WDRs	Waste Discharge Requirements

WQO	Water Quality Objectives
WWTP	Wastewater Treatment Plant
WTP	Water Treatment Plant
$\mu g/m^3$	Micrograms per Cubic Meter